

PATENTS AND INDUSTRIAL DEVELOPMENT

A CASE STUDY OF ZAMBIA

BY

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DECLARATION

I MARJORIE GRACE MWENDA nee' JOHNSON do solemnly
declare that this thesis represents my own work
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0000

This thesis of Marjorie Grace Mwenda nee
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ABSTRACT

This research concentrates on Zambia, as the title suggests. It endeavours to ascertain whether patents are playing an important role in the industrial progress of Zambia and if not why and whether patents owned by foreign patentees are used as a means of transfer of technology to Zambia from the developed countries and if not why. Further, why there are so few local patents.

The international union for the Protection of Industrial Property, of which Zambia is a member, is examined in particular its effect on third world countries.

Zambia's Patent Act and its origin is discussed. The relevant sections dealing with applications, duration of patents and licensing are looked at. Its conformity to the Paris Union is shown.

The Paper also discusses the Industrial Property Organisation for English Speaking Africa of which Zambia is a member.

The International Patent system and the various arguments for and against the present patent system are also discussed. These arguments are related to the Zambian situation in order to determine which may hold good.

The background and reasons for the proposed revision of the Paris Convention are discussed. The proposed amendments are looked at and their possible effect on the Third world countries.

Multinational Corporations, being the major holders of patents worldwide and thus the major controller of patented technology play a very important role in research and development. Their policies are highlighted regarding research in Third world countries and working of patents, and the relationship between the parent companies and their subsidiaries. Zambian industries are used as examples.

The Draft Code of Conduct on the Transfer of Technology, seeks, among others, to prevent the including of the restrictive business practices in "transfer of technology" transactions with the Third World. The draft code is examined in detail and examples of such restrictive practices taken from Zambian industries

Zambia's policies and incentives in the area of research are looked at.

The problems facing third world countries, Zambia in particular, in the area of research and development are highlighted. Suggestions are made on what ought to be done to at least begin to solve some of these problems.

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This work is dedicated to my two daughters
Lona Albertha and Berverley Lizinga Petrona.

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Income Tax Act Chapter 668 of the Laws of Zambia

Income Tax (Amendment) Act No. 10 of 1979

Income Tax (Amendment) Act No. 10 of 1981

Industrial Development Act No. 18 of 1977

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Land (Conversion of Titles) Act No. 20 of 1975

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INTRODUCTION

1. Background

There is debate internationally about the advantages and disadvantages of the present patent system. There have been suggestions made by the Third World to amend the International Convention for the protection of Industrial Property (Paris Convention) so that the Convention can facilitate the transfer of technology from the industrialised countries to the third world. The less developed countries need preferential treatment under this⁴ convention as they are economically weak and cannot compete with the former. This contention is a valid one and should not be ignored, but amending the Paris Convention without more will not serve any useful purpose. The root cause of the problem lies in the various third world countries and the multinational corporation' policies and not only with the patent system prevailing in the world.

2. Scope of study

This research will concentrate on Zambia as the Title suggests, which like other undeveloped countries is desperate to achieve economic progress.

It will be shown in this paper that industrial research is the basis of industrial progress. Unfortunately, in Zambia, such research is not given the importance it deserves.

This paper will endeavour to ascertain whether patents are playing an important role in the industrial progress of Zambia and if not why; whether patents owned by foreign patentees resident in developed countries are used as a means of transfer of technology to Zambia from the developed countries and if not why. Finally, why there are so few local patents and there is little initiative by local industries to make use of patents for which the term have expired and are open to public use.

The main aim of this research is to highlight the problems surrounding patents in undeveloped countries and Zambia in particular and make suggestions on how to overcome these problems so as to enable these countries to move forward industrially.

Ursula Wassermann writes in the Journal of world Trade Law, "Zambia - due to its dependency on copper exports was by 1984 bankrupt-de facto if not de jure. Imports have been cut by two thirds over the past 10 years. Zambia in July 1984 rescheduled

her \$2.5 billion external debt in term of capital repayment and interest due in 1984" ¹

Zambia is going through a very difficult time and assistance, advise, suggestions on ways of improving the economy should be welcome and urgent.

The definitions of Patents, Trade Marks and Technology and Multinational Corporations and their organisation world wide are looked at in Chapter 2.

Chapter 3 discusses the history of international Patent Law. It also traces the History of the Paris Convention and its membership in particular membership from the third world. The provisions of the Paris Convention dealing with Patents, Articles 1 through to 5, which are relevant to this paper are highlighted. The effect of the Paris Convention on Third world countries is discussed in particular patent abuse in third world countries for which the Paris Convention provides few remedial measures.

¹ Wassermann, U. "The Economic situation in Africa", Journal of World Trade Law, Vol. 18: No.6, Nov.-Dec. 1984, P.556

Chapter 4 deals with the origins of Zambia's *Patent Act*. *The Patent Act is examined for the purpose of showing the persons who are entitled to make an application for a patent; the form of application; the contents of the specification and claims; the examination of the application by the Registrar and publication of the Acceptance Notice of the Patent for opposition purposes; whether there are any case laws relating to Patent in Zambia and listing local patent applications lodged for a given period. This Chapter further looks at the effect of Patents as laid down by the Act; the term of Patents; when patents are due for renewal; the provisions in the Act providing for "licenses of right" and compulsory licence; revocation of patents, Assignments and licensing of patents.*

Industrial Property Organisation for English speaking Africa, hereinafter referred to as **ESARIPO**, is examined briefly and the Harare Protocol and its establishment and membership, and possible future membership and its operation.

Chapter 5 discusses the international Patent system and looks at the various arguments for and against the present patent system.

These arguments are related to the Zambian situation to see whether Patents do play a role in the industrial development of Zambia through the transfer of technology to Zambia, or inducement of foreign investment in the country or other development of local technology. It further discusses the background and reasons for the proposed revision of the Paris Convention. In addition it looks at the proposed amendments which would have an effect on patents and the third world countries. It discusses these **WIPO** proposals and their possible effect on the Third World countries, both positive and negative.

Chapter 6 looks at Multinational Corporations and their reasons for not carrying out research or working patents in Third World countries, and the relationship between the parent Company and its subsidiary in the area of technology and marketing. Reference is made to Zambia and examples taken from Zambian industries.

In Chapter 7 the Draft Code of Conduct on the transfer of technology is discussed, the background to the Code and the reason for formulating it.

The section of the Code that is important to this paper is restrictive business practices. These practices are listed and it is shown that they exist

in Agreements entered into between Zambian companies and foreign companies.

The arguments put forward by both the developed and the Third World countries relating to this code and the possible future and chances of successes of the Code are discussed.

Chapter 8 looks at Zambia's Policies and incentives in the area of research. The Third National Development Plan and the National Council for Scientific Research are examined. The Income Tax argument is looked at, and the relevant sections of the Constitution regarding the ownership of property are also examined.

The incentives for research in Zambia are contained in the Industrial Development Act. The extent to which the incentives are effective and the role the Industrial Development Act is playing in the industrial progress of Zambia is discussed in detail. Last but not least the Land (Conversion of Titles) Act is discussed and its relevance to investment in Zambia shown.

Chapter 9 brings out the problems, in Zambia, relating to research, which are the reasons why there is little or no research carried out within the country both by subsidiaries of multinational corporations, privately owned local companies and parastatal companies.

Suggestions are then made on what ought to be done to at least begin to solve some of the problems relating to research and development.

3. METHODOLOGY

Numerous statutes, books, articles, reports, papers and other documents were examined during the course of this research. These were obtained from various libraries within Lusaka, Zambia, and Nottingham, England, and also from the **WIPO** and **UNCTAD** offices in Geneva Switzerland and the Industrial Property Organisation for English-speaking Africa office in Harare, Zimbabwe.

A questionnaire was prepared and sent to numerous industries within Zambia - subsidiaries of multinational corporations, parastatals and privately owned industries. The responses were fairly reasonable. Interviews were carried out at the National Council for Scientific Research, the Patent Office and the Ministry of Commerce and Industry. At the Patent Office official records were also looked at.

DEFINITIONS

1. Patent

It is important that the term Patent is properly defined from the outset as the paper is centered around patents. Zambia's Patent Act² defines Patent as "letters Patent for an invention granted for Zambia.....". An invention is defined as "any new useful art, process, machine, manufacturer or composition of matter which is not obvious, or any new and useful improvement thereof which is not obvious, capable of being used or applied in trade or industry and includes an alleged invention".

Terrell on the Law of Patents says that a Letters Patents for an invention may be regarded as an open document sealed with the seal of the Patent office and containing a grant by the state of monopoly privileges in respect of an invention."³

2. Chapter 692 of the Laws of Zambia, Part I Section 2(i)

3. Aldous, G, Falconer, D. Aldous, W. Terrell on the Law of Patents, eleventh edition, London, Sweet & Maxwell, 1965, P.I

David J. Henry goes on further to say that "the patent is a mode of transfer, a legal framework, for transferring other important know-how or financing interest"⁴

An invention for which a monopoly privilege or exclusive right is granted by the state, in which it is registered for a certain length of time is a Patent. The Legal term used is "Letters Patent". Like Trade Marks and Designs, mentioned below, it is considered to be an industrial property or intellectual property.

L.W. Melville says intellectual property "is peculiarly international largely because it is concerned with ideas springing from human intellect. These are of an abstract nature and of universal application".⁵ One may therefore define a patent as an exclusive right granted by the state in which it is registered over an invention for a certain length of time.

An invention in order to be patented has to be novel and it has to be capable of being applied in industry or trade.

4. Henry, D.J. "Protection against non-commercial risks in Patent Licensing," Journal of World Trade Law, Vol. 10. No. 5 Sept-Oct. 1976, P.422

5. Melville, L.W. Precedents on Intellectual Property and International Licensing, (Second edition), London, Sweet & Maxwell 1972, P.4.

Patents, the world over, tend to become inter-related with trade marks as the patented invention more often than not are given trade marks which becomes identified with them even after the patent term has expired

2. Trade Marks

A trade mark according to the *Zambian Trade Marks Act* means ".... a mark used or proposed to be used in relation to goods for the purpose of indicating or so as to indicate a connection in the course of trade between the goods and some person having the right either as proprietor or as a registered user to use the mark....". A mark can be a device, brand, heading, label, ticket, name, signature, word, letter, numeral or any combination thereof.⁶

A mark once registered against particular products gives the registered proprietor the exclusive use of the mark within the countries registered, for those products. Trade Marks are meant to protect the goodwill of the Trade Mark proprietor, enhance industrial development and safeguard the interest of the consumer. A trade mark is therefore used to identify goods in the course of trade of the Registered Proprietor or its registered user. Once a Patent becomes

6. Chapter 693 of the *Laws of Zambia*, Part I Section 2(1)

identified with a particular trade mark these goods will still have a degree of protection through its trade mark even after the patent term has expired.

3. Technology

The question of what is technology is a topic that is widely debated.⁷ For the purposes of this research a general definition will be sufficient rather than a technical one

Steven Langdon⁸ contends that Technology in its broadest sense may be considered to be specialised knowledge related to production. Knowledge is an economic commodity over which patent systems establishes property rights. Technology may be in various forms i.e. Technic skills (know-how); machinery and equipment; patented inventions; etc. These can be transferred and/or sold. Technology can be applied widely but this research is mainly concerned with technology relating to Patents.

It should be noted from the outset that most of the valuable, useful and transferable technology

7a Wad, A. "Science Technology and industrialisation in Africa Third World Quarterly, April 1984, Vol. 6 No. 2 published by the Third World Foundation for Social and Economical Studies, London, pp.327-350

7b. United Nations Institute for Training and Research UNITAR/DS/6 10th October 1983.

8. Langdon, S. "Technology transfer by Multinational Corporations in Africa: Effects on the Economy", Africa Development Vol. 11 No.2, April-June 1977 edited by A.S. Biyra

in the world lies in the hands of the industrialised countries.⁹ Furthermore, almost all of this technology is owned by private companies which are called Multinational Corporations. There is therefore a link between the Multinational Corporations, technology, production, wealth and power. 90% of the world multinational Corporations are incorporated and headquarters in the U.S.A.¹⁰

The Multinational Corporations therefore have a monopoly over technology worldwide, technology, which is one of the keys to development, and they lease and sell it at their will and their price.

Technological progress is a necessary condition for economic development, because it enables a more productive use of the factors of production, provides the fruits of such progress in modern consumption goods and is conducive to more progressive or dynamic attitudes or socio-economic patterns in society!¹¹

9. Conboy, K. The Group of 77 Draft Provisions concerning supplier Guarantees for the proposed international code of Conduct on the Transfer of Technology, G.A.J.Int'l & Comp. L (Vol. 9):1979, P.73

10. *ibid*, P.74

11. Lall, S. "The Patent system and the transfer of technology to less developed countries" Journal of World Trade Law, Vol.10 No. 1: Jan: Feb. 1976, P.2. ..

4. Multinational or Transnational Corporation

Patents and technology cannot be discussed without a discussion on multinational corporations as it is these corporations that control a large percentage of patents and technology worldwide. These multinational corporations operate across sovereign boundaries in several countries through affiliates or subsidiaries. These subsidiaries are separate legal entities but have a powerful central control. Isiah Frank states that the Company's control may be exercised in a number of ways such as controlling pricing policies, choice of technology, appointment of key personnel and determination of market.¹²

Table 1 shows that in 1967 187 U.S. enterprises had nearly 8,000 foreign subsidiaries in operation worldwide.¹³

12. Frank, I. "Foreign Enterprises in developing countries," (a supplemental paper of the Committee for Economic Development). The Johns Hopkins University Press Baltimore and London, 1980, P.8.

13. Vernon, R. Sovereignty at Bay, Basic Books, Inc New York/London 1971, P. 121.

TABLE 1

Number of Foreign Subsidiaries of 187 U.S. Controlled Multinational Enterprises in Specified Areas, Classified by Principal Activity, 1967

| BY PRINCIPAL ACTIVITY | | | | | | |
|-------------------------|--------------------|-------|-----------------|-------|---------|----------------------------|
| AREAS | MANUFAC- TURING | SALES | EXTRAC- TION | OTHER | UNKNOWN | TOTAL SUBSIDI- ARIES |
| All Foreign areas | 3,646 | 1,358 | 172 | 1,247 | 1,504 | 7,927 |
| Canada | 443 | 128 | 36 | 185 | 256 | 1,048 |
| Latin America | 950 | 233 | 56 | 338 | 347 | 1,924 |
| Mexico | 255 | 31 | 14 | 56 | 56 | 412 |
| Argentina | 108 | 20 | 4 | 23 | 32 | 187 |
| Brazil | 149 | 25 | 2 | 42 | 49 | * 267 |
| Europe & United Kingdom | 1,438 | 722 | 15 | 529 | 697 | 3,401 |
| European Community | 759 | 327 | 7 | 245 | 337 | 1,675 |
| France | 223 | 81 | 3 | 95 | 91 | 493 |
| Germany | 211 | 91 | 1 | 53 | 100 | 456 |
| Italy | 161 | 44 | 1 | 29 | 75 | 310 |
| Efta | 494 | 336 | 6 | 250 | 320 | 1,405 |
| United Kingdom | 356 | 112 | 5 | 131 | 196 | 800 |
| Other Europe | 185 | 59 | 3 | 324 | 40 | 321 |
| Southern dominions | 361 | 101 | 26 | 78 | 82 | 648 |
| Asia and other Africa | 454 | 174 | 39 | 117 | 122 | 906 |
| Japan | 144 | 40 | 0 | 24 | 25 | 233 |
| India | 62 | 8 | 0 | 4 | 12 | 86 |
| Black Africa | 43 | 37 | 20 | 36 | 30 | 166 |

a The data deals with subsidiaries; branches are not included. This omission is particularly important in extraction industries, in which branches represent a fairly important form of foreign operations.
source: see footnote 13

5. Organisation of Multinational Corporations

U.S. parent companies tend to restrict their foreign subsidiaries in numerous ways such as confining their legal right to do business to specified geographical areas. However, as long as the parent company feels its control is secure it will use its subsidiaries for whatever purpose, regardless of the restrictions, provided that it is in the interest of the system as a whole.¹⁴

The transfer of goods and services among affiliates are usually done at prices that are at variance with what independent buyers and sellers would reach.¹⁵ However, this does not prove that there is a bias in assigning the largest profit to the parent, but it may be used to transfer resources from one subsidiary to another.

Many host governments encourage multinational corporations to go into joint ventures with local enterprises. That means sharing the ownership of their local subsidiaries but U.S. parent companies prefer to own their own subsidiaries. In this way world trade flows of movements within and among multinational enterprises. Each corporation is provided with an opportunity to own or control marketing of and distribution channels for its own products as well as for those of other enterprises for which it holds franchise or franchises. This may be seen from Table 2.¹⁶

14. Ibid, P.135

15. Ibid, P.139

16. Ibid P.143

TABLE 2

Number of Foreign Subsidiaries of 187 U.S. controlled
Multinational Enterprises, Classified by Degree of System
Ownership, 1967

| BY DEGREE OF SYSTEM OWNERSHIP ^a | | | | | |
|--|-----------------|-------------------------|-------------------------|---------|-----------------------------|
| AREAS | WHOLLY OWNED | MAJOR - ITY OWNED | MINOR - ITY OWNED | UNKNOWN | TOTAL SUBSIDI - ARIES |
| All Foreign areas | 5,143 | 1,457 | 660 | 667 | 7,927 |
| Canada | 817 | 101 | 44 | 86 | 1,048 |
| Latin America | 1,195 | 365 | 197 | 167 | 1,924 |
| Mexico | 230 | 79 | 61 | 42 | 412 |
| Argentina | 115 | 36 | 20 | 16 | 187 |
| Brazil | 173 | 48 | 16 | 30 | 267 |
| Europe and United Kingdom | 2,221 | 651 | 227 | 302 | 3,401 |
| European Community | 1,025 | 351 | 137 | 162 | 1,675 |
| France | 256 | 133 | 62 | 42 | 493 |
| Germany | 293 | 84 | 26 | 53 | 456 |
| Italy | 188 | 70 | 19 | 33 | 310 |
| Efta | 1,037 | 196 | 53 | 119 | 1,405 |
| United Kingdom | 554 | 129 | 38 | 79 | 800 |
| Other Europe | 159 | 104 | 37 | 21 | 321 |
| Southern Dominion | 460 | 113 | 37 | 38 | 648 |
| Asia and other Africa | 450 | 227 | 155 | 74 | 906 |
| Japan | 72 | 71 | 65 | 25 | 233 |
| India | 29 | 23 | 28 | 6 | 86 |
| Black Africa | 112 | 28 | 20 | 6 | 168 |

a 'Wholly owned' means that the subsidiary's parents in the system hold 95 per cent or more of the voting stock; 'majority owned' 50-94 per cent; 'minority owned' 5-49 per cent.

Source: see footnote 16.

Leading studies in the subject indicate that although wholly owned subsidiaries are more tightly controlled from the parent, than joint ventures, they tend to get special benefits according to the needs of the system.¹⁷

A very useful and simple explanation of what a multinational Corporation is all about is given by Pierre Bergeron in his Guide. He states that, "In its nature, the multinational enterprise attempts to direct a corporate family of diverse nationalities under its control towards super-national, or global goals. The parent and each member of the family have a nationality, each having been granted its corporate existence by the authority of a specific sovereign national. But through bonds of common ownership and common strategy that cut across national boundaries, the family group operates as a transnational system that rationalizes its business operations and maximize its business goals

17. *ibid*, P.143

on a global basis. Such goals may be in harmony or in conflict with the goals of one or more nation states."¹⁸

Transnational Corporations are very powerful and wealthy organisations worldwide. They have the resources at their disposal to carry out research leading to inventions which can be patented. However, the multinational corporations carry out research in only certain areas of the world. Statistics show that most research is carried out in the developed countries.

18. Bergeron, P. Antitrust Guide, Copyright 1982 by Centre for Education in trade and Development, Washington D.C., P.19.

ORIGINS OF PATENTS AND THE PARIS CONVENTION1. Origins of Patent Law

The first Patent statute which could be considered to be the recognisable ancestor of contemporary patent law was enacted by the City state of Venice in 1474.¹⁹ This Act expressed the underlying rationale of the contemporary patent system. It cited four motivations underlying the patent system.

- (1) utility to society
 - (2) encouragement of inventive activity
 - (3) refund of costs incurred by the inventor, and
 - (4) the inventor's right to the fruits of his mind.
- Promotion of social interest was a key function emphasised by the Venetian Law.²⁰

Despite this national patent laws only became widespread with the advent of the industrial revolution. In the U.S.A. the first patent law was enacted in 1790 and in France in 1791.²¹

19 UNCTAD, Geneva, The Role of the Patent system in the transfer of technology to Developing Countries, U.N., New York 1975, P.32.

20. Haar, P.S. "Revision of the Paris Convention: A realignment of the private and public interest in the international Patent system" 8 Brooklyn Journal of International Law 77-108 Wint. 1982 79

21. UNCTAD, the Role of the Patent system in the transfer of technology to developing countries, U.N. New York, 1975, P.32

By the end of the 19th century there were patent laws in nearly all the developed market economies, the socialist and the Southern European countries.²² In the developing countries patent laws increased from 10 countries in 1873 to 84 in 1973. The statistics in table 3 and 4 shown below show this increase.

This rise in number can be explained by the fact that these are former territories and colonial dependences either had legal codes which included some form of patent system during their dependence or which applied the colonial power patent laws, came to be shown later as independent countries with national legal codes. In the case of Zambia the Patent Act, Chapter 692 is a replica of the United Kingdom Patents Act of 1949 as amended in 1957, Chapter 205 of the 1957 edition of the Laws which was applied in Zambia prior to its gaining independence. Chapter 4 of the Laws of Zambia²⁴ gives authoirty for the application of the U.K. Patent statute in Zambia. This Act states that subject to the provisions of the Zambia Independence Order, 1964 and to any other written law; the common law; the doctrines of equity and the statutes which were in force in England on the 17th August, 1911 and any statutes of later date in force in England then applied to Zambia or which shall be applied to Zambia by any Act or otherwise shall be in force in Zambia

22. Ibid, P.33

23. Ibid, pp. 33 and 34

24. Chapter 4 Laws of Zambia, English Law (Extent of Application).

TABLE 3

The spread of national patent legislation, 1873 to 1973:
number of countries having patent laws in given years^a

| Groups of countries | 1873 | 1884 | 1900 | 1911 | 1925 | 1934 | 1958 | 1967 | 1973 |
|--|------|------|------|------|------|------|------|------|------|
| Developed market-economy countries... | 9 | 11 | 16 | 17 | 19 | 20 | 20 | 20 | 20 |
| Socialist countries of Eastern Europe... | 1 | 2 | 3 | 4 | 7 | 7 | 8 | 8 | 8 |
| Southern European countries..... | 2 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 |
| Developing countries of which: | 10 | 13 | 23 | 28 | 42 | 44 | 60 | 83 | 85 |
| Africa..... | 1 | 2 | 4 | 4 | 10 | 11 | 16 | 35 | 37 |
| Asia..... | 1 | 1 | 2 | 3 | 7 | 8 | 16 | 19 | 19 |
| Latin America..... | 8 | 9 | 15 | 19 | 22 | 22 | 24 | 25 | 25 |
| Others..... | 0 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 4 |
| Other States ^b | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 3 | 3 |
| TOTAL WORLD | 22 | 29 | 45 | 53 | 73 | 77 | 95 | 118 | 120 |

a Data given for years relating to the evolution of the Paris Convention: 1873, the Vienna exhibition; 1884, entry into force of the Convention; 1900, 1911, 1925, 1958, 1967, revisions of the Convention; 1973, present status.

b. Holy see, Liechtenstein, Monaco, san Marino and South Africa.

Source see footnote 23

TABLE 4

Increase of Paris Union membership by groups of countries:
number of members in given years^a

| Groups of countries | 1884 | 1900 | 1911 | 1925 | 1934 | 1958 | 1967 | 1973 |
|--|----------------|------|------|------|------|------|------|----------------|
| Developed market-economy countries... | 6 | 11 | 13 | 18 | 19 | 19 | 20 | 20 |
| Socialist countries of Eastern Europe..... | | | 2 | 6 | 6 | 6 | 7 | 7 |
| Southern European countries..... | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 |
| Developing countries of which: | 5 | 3 | 5 | 9 | 9 | 15 | 42 | 44 |
| Africa..... | 1 | 1 | 1 | 2 | 2 | 3 | 23 | 23 |
| Asia..... | | | | 2 | 2 | 6 | 8 | 9 ^a |
| Latin America..... | 4 ^b | 2 | 4 | 4 | 4 | 5 | 8 | 9 |
| Others..... | | | | 1 | 1 | 1 | 3 | 3 |
| ^c Other States..... | | | | | 1 | 3 | 5 | 5 |
| TOTAL WORLD | 13 | 16 | 22 | 37 | 39 | 47 | 78 | 80 |

a. Data given for years relating to the evolution of the Paris Convention: 1884, entry in force of the Convention; 1900, 1911, 1925, 1934, 1958, 1967, revisions of the Convention; 1973, present status.

c Holy see, Liechtenstein, Monaco, San Marino and South Africa

Source: see footnote 23

With the acceptance of patent law on such a wide scale in both Europe and North America there became a need for the establishment of international rules to be observed by different countries.

2. The Paris Convention

In 1883²⁵ the International Union for the Protection of Industrial Property was established by an intergovernmental convention. This Convention is popularly called the Paris Convention. There are 91 members as of the 1st January 1982²⁶

The only country from the third world which has been in the Paris Convention from the beginning is Brazil.²⁷ Almost two thirds of the developing countries membership is of a very recent origin. These countries have acceded or succeeded to the Convention only after the Convention's main principles were firmly established.²⁸ The role of the third world countries in shaping the Paris Convention has therefore been limited if not nil. This is one of the problems of the Paris Convention. Third world interest were not taken into account when the Paris Convention was formed.

25 UNCTAD, Geneva, The role of the Patent System in the transfer of technology to Developing countries, U.N. New York 1975, P.34.

26. International Convention for the Protection of Industrial Property - Annexure.

27. UNCTAD, Geneva, The Role of the Patent System in the transfer of technology to Developing countries, U.N. New York 1975, P.34.

28. Ibid, P. 35

3. Provisions of the Paris Convention

Since the Paris Convention is such an important Convention it is necessary to look at it. The Convention covers patents, utility models, industrial designs, trade marks, service marks, trade names, indication of source or appellations of origin and the repression of unfair competition.

It is stated in Article 2 that Nationals of any country of the Union shall enjoy in all the other countries of the Union the advantages granted by their respective laws to nationals. It thus follows that they shall have the same protection and the same legal remedies against infringement of their right as enjoyed by nationals.

In Article 3 it is provided that if a person is a national of a country that is not a member of the Union he shall be treated as a national of the countries of the Union so long as he is domiciled in or have an industrial or commercial establishment in one of the member countries.

It is stated in Article 4 that any person who files an application for a patent etc. in any one of the countries of the Union shall have a right of priority of 12 months for patents from the date

of filing the application for the purpose of filing in other countries of the Union Patents applied for in each country of the Union are independent of patents obtained for the similar invention in other countries according to the provision of Article 4 bis..

One of the main articles which is being questioned by the third world countries is Article 5. It fails to discourage non-working of patents. It provides that a patent shall not be forfeited if the patentee imports into the country, in which the patent has been granted, manufactured goods which were manufactured in any countries of the Union. Subsection (2) states that each country of the Union shall have the right to legislate for the granting of compulsory licence to prevent abuses by patentees as a result of the exclusive right conferred by patents such as failure to work the patent. However, subsection (3) and (4) lays down certain conditions which the countries have to observe when legislating in accordance with subsection (2). Forfeiture of a patent can only be provided for if the grant of compulsory licenses is not sufficient to prevent the abuses such as failure to work. No proceedings for forfeiture or revocation can be instituted until after 2 years from the grant of the

first compulsory licence and one cannot apply for a compulsory licence on the ground of failure to work or insufficient working before the expiration of 4 years from the date of filing of the application or 3 years from the date of granting of the patent, whichever expires last. If the patentee justifies his inaction then the application shall be refused. Such a licence shall be non-exclusive and non-transferable except the goodwill of the enterprise which exploits the licence.

Provision is made in Article 5 bis for a period of grace for the payment of renewal fees and the restoration of lapsed patents.

The cases when a patent in any country of the union shall not be considered to be infringed is laid down in Article 5 ter. These are instances when e.g. a vessel temporarily enters the waters of a country and there is on board that vessel a device, which is used and needed on the vessel which is patented by another party in that country.

Provision is made in Article 5 quarter for the protection of patentees of imported products for which the process has been patented in that country.

The subsequent Articles deal with Trade Marks, Industrial Designs, the constitution of the

Union and its administration, finance etc. Article 19 allows countries of the Union to make special agreements between themselves so long as they do not contravene the provisions of the convention.

The establishment of the Paris Convention was meant to be for the benefit of all its members. However, it can be argued that in fact the Convention benefits those member states which participated in its drawing in that it does not take account of the third world countries. This has resulted in a call by the Third World members to amend the Paris Convention and also the enactment of a Code of Conduct on the transfer of technology. These will be discussed in later chapters.

4. Effect of the Paris Convention on Third World Countries

Multinational Corporations have acquired commanding control over most of the world's patent and have exploited them to maximise corporate profits rather than to benefit the public interest. Thus, most of the technology desired and anticipated by the Less Developed Countries in the granting of patents is denied to them due to insufficient working or non-working of the patents.²⁹ Working of patents

²⁹ Haar, P.S. "Revision of the Paris Convention: A realignment of private and public interest in the International Patent System", pp.77-78

may be defined as making or selling the patented invention, or using the patented invention in the production of goods and services.

The Paris Convention, as it stands, provides few remedial measures to deal with potential patent abuses. Foreign owned patents in Less Developed Countries are almost totally unexploited. Once the Multinational Corporation acquires patent rights it can prevent the production, sale, use or importation of identical non-patented products or processes in the countries in which the patent is registered. If the multinational Corporation decides not to use or license the patent the Less Developed Countries may be inhibited by its own patent law, which has to conform to the Paris Convention, from obtaining the technology from another foreign source or developing it locally. This means that the patent is registered merely to gain a monopoly of the market in the Less Developed Countries without the Patentee having to provide capital to commence production.

There is provision in the Paris Convention for the legislation in each country of compulsory license or forfeiture or revocation of the patents. However, the general sentiment among the Less Developed Countries is that the compulsory licensing

and forfeiture provisions in the Paris Convention are too burdensome and time consuming to rectify adequately the non-working problems. A number of reasons have been given for the shortcomings of the compulsory licensing mechanism. Firstly, compulsory licensing procedures may not even commence until some years after the initial application for the Patent grant. Secondly, the actual granting of a compulsory licence can in itself be an expensive and troublesome matter. Judicial procedure may be lengthy and costly. Thirdly, a compulsory licence will not be granted if the patent holder can present legitimate reasons for his inaction. Fourthly, where the voluntary cooperation of the patentee in sharing undisclosed know-how is necessary for the effective utilization of a patented invention, a compulsory licence has little value.³⁰ Statistics show this provision not to be very effective as shown in table 5 below.³¹

The Paris Convention treats all its members equally despite the fact that in every aspect the less Developed countries are economically weaker than the developed countries. This can be explained by the fact that the Paris Convention came into force before these Less Developed Countries became members as independent countries, as explained earlier on.

30. Ibid, P.90

31. UNCTAD Geneva, The Role of the Patent system in the Transfer of Technology to developing countries, U.N. New York, 1975. P.50

TABLE 5

Number of compulsory licences granted in selected countries

| Countries | Number of applications for compulsory licences | | | | |
|------------------------------------|--|--------------------|---------|-----------|---------|
| | Period | Filed ^a | Refused | Abandoned | Granted |
| Developed market-economy countries | | | | | |
| Australia..... | 1958-1963 | None | .... | .... | None |
| Canada..... | 1935-1970 | 192 | 14 | 72 | 79 |
| Denmark..... | b | 7 | .... | 1 | 3 |
| Ireland..... | b | 1 | .... | .... | None |
| Japan..... | 1958-1963 | None | .... | .... | None |
| Netherlands..... | 1958-1963 | None | .... | .... | None |
| New Zealand..... | 1955-1963 | None | .... | .... | None |
| Norway..... | 1910-1963 | 27 | 2 | 11 | 11 |
| Switzerland..... | 1952-1963 | None | .... | .... | None |
| United Kingdom..... | 1959-1968 | 57 | .... | .... | 6 |
| Developing Countries | | | | | |
| Cuba..... | 1958-1963 | None | .... | .... | None |
| India..... | b | 4 | .... | .... | 1 |
| Israel..... | b | 3 | .... | .... | None |
| Morocco..... | 1958-1963 | None | .... | .... | None |
| Philippines..... | b | 8 | .... | .... | None |
| Republic of Korea... | b | 1 | .... | .... | 1 |
| Socialist country | | | | | |
| Poland..... | b | 7 | .... | .... | None |

a. Including applications pending at the end of the period covered.

b. Based on paragraph 17 of The Role of patents in the transfer of technology to developing countries where the precise period is not stated, but reference is made to "over a recent five-year period."

Source: see footnote 31

ZAMBIA'S PATENT ACT

1. Origins of Zambia's Patent Act

Zambia has its own Patent Act which is based on the British Act of 1949 as amended in 1957. Zambia being a former colony of Britain adopted this Act from Britain on gaining its independence as pointed out in the previous Chapter. There have been amendments of this Act but not, one could argue, on a major scale. The Patents (Amendment) Act No. 18 of 1980 abolished the Patents Tribunal. All appeals from the decisions of the Registrar shall be made to the High Court. This is less time consuming and less costly for the appellant as instead of appealing to the Patent Tribunal and then to the High Court the appellant can now appeal directly to the High Court. An examination of this Act will be made as it stands today.

After the attainment of independence a Patent Office was established in Zambia with a Registrar responsible for its administration.

2. Persons entitled to make application for Patents

Who can apply for a patent in Zambia? Any of the following can: (a) a person claiming to be the inventor of the invention who owns the invention in respect of Zambia (b) an assignee (c) nationals

of any country of the union, or nationals of countries outside the Union who have commercial or industrial establishment in at least one of the countries of the Union, who have applied for protection for an invention in a convention country, or his legal representative or assignee. (d) the legal representative of any person who immediately before his death or *disability was entitled to make such application.*

3. Form of application

S An applicant has to fill in a prescribed form. The form has to be signed by the applicant or an authorised person, such as a Patent Agent. The application form must be accompanied by a specification and claims. A convention application must be accompanied by a complete specification while a non-convention application may be accompanied either by a provisional specification or a complete specification. If it is accompanied by a Provisional specification then a complete specification has to be lodged within 12 months of the lodging of the application. If the application is being made by an assignee or legal representative then such proof e.g. an Assignment of the invention, must be submitted to the Registrar.

4. Specification and Claims

A provisional specification shall fairly describe the invention while a complete specification shall fully describe the invention and the manner in which it is to be performed.

It shall also disclose the best method of performing the invention known to the applicant at the time when the specification is lodged and it should end with a claim or claims defining the subject matter for which protection is claimed. If required a specification shall be accompanied by drawings.

5. Examination of applicant by Registrar and Publication

The Registrar then examines the application and the specification and if he finds it in order accepts it and gives notice to the applicant by way of a form officially called "Notice of Acceptance" the original of which should be sent to the Government Printers for publication in the Patent Journal. After publication the specification and other documents lodged shall be open to public inspection. Three months after the date of the publication and if there has been no opposition to the grant of the patent then the applicant lodges another form and pays the sealing fee at the Patent office. The Letters Patent document is then granted to the Patentee.

Any person may within the opposition period of three months after publication of the application, oppose the grant of the patent on any of the grounds mentioned in Section 22(1) of the Act.

Statistics showing the number of Patent applications lodged in Zambia are listed in Chapter 5. There is no known case law relating to Patents in Zambia. There are however, a number of objections to registration of Patents by the Registrar of Patents which have been dealt with administratively.

6. Patent applications lodged by Zambians/Residents

In 1976 the National Council for Scientific Research lodged 8 Patent application under numbers 79/76 to 86/76. These applications were for the following:

- a) Production of wines from the fruit parinani (Mpundu)
- b) A process for the preparation of a beverage (squash) from Parinani (Mpundu) fruit
- c) A process for the preparation of Mango jelly
- d) A process for the preparation of Mango jam
- e) Production of wines from the fruit of Uapaca (Masuku)
- f) Production of a carbonate beverage from Uapaca (masuku) fruit
- g) A process for the production of A-ready-to-drink Mango Beverage
- h) A process for the preparation of Mango candy

The Registrar objected to these applications on the grounds either that they were recipes for the

preparation of a product rather than an invention or under the provision of Section 18 of the Patent Act, which apply to beverages for which applied no less than to the solid substance. They were therefore not accepted and thus not registered. The Registrar's decision was legally justifiable under Section 18(c) of the Patent Act. He has a right to refuse applications under this section if the applications are not inventions "as defined in the Act. If an application does not conform to the requirements of the Act the Registrar may refuse the application.

There are patents registered in Zambia as shown in the next Chapter. Very few are local patents.

Other patent applications lodged and/or granted between 1975 and 1983 are for the following:

- a) "Soil enrichment by electrical discharge" (granted):
Patentee - Allan Charles Loxton
- b) "Linear Arrestors" (granted): Patentee -
Selftrust Engineering Limited and Roan Consolidated
Mines Limited
- c) "the Manufacture of sugar cane wine" (granted):
Patentee-Hyman Earl Johnson (1)
- d) "Locking Device of a car" (application):
applicant - Judah H. Chitanda
- e) Newplan Horizontal Draught Multi-fuel stove"
(application): applicant - John Emile Van
Schalkwyk

The Registrar of Patents considered (a) (b) and (c) above to be inventions as defined by the Act. Thus, the applications were not refused by him. The other two applications (d) and (e) above were still being examined.

7. The effect of Patent

The effect of a Patent granted in Zambia is laid down in Section 28(4) of the Act which states: "the effect of a patent shall be to grant to the patentee, subject to the provisions of this Act and the conditions of the patent, full power, sole privilege and authority by himself, his agents and licenses during the term of the patent to make, use, exercise and vend the invention within Zambia in such a manner as he seems fit, so that he shall have and enjoy the whole project and advantage accruing by reason of the invention during the term of the patent." The patentee thus have a monopoly right over his patent to the exclusive of all others.

8. Term of Patent

The term of a patent in Zambia is 16 years from the date of lodging the application in Zambia. A patent term may be extended by the Registrar on the grounds mentioned in Section 30(1) of the Act. One of such ground being that he has not derived adequate remuneration from the patent. There are no guidelines as to what is adequate remuneration. The other ground being that by reason of hostilities between this Republic or any country of the Commonwealth and any foreign state, he has suffered loss or damage

9. Renewal of Patent

A patent is not renewable for the first 3 years of the term but from the 4th year it has to be renewed annually. If a patentee fails to pay the renewal fee in time there is provision for the patent to be renewed on the payment of a late fee. Or if the Patent lapses it can be restored.

The Patentee can obtain a patent of addition for an improvement in or modification of the invention.

10. Licences of Right

There is provision under Section 35 for the Patent to be endorsed with the words "licences of right" on application by the patentee to the Registrar after sealing. This means that any person can then be entitled to a licence of the said patent, as of right, subject to conditions laid down by the Patentee. If there is default of agreement then the Registrar can settle such default on application by either party.

11. Compulsory Licence

Section 37(1) of the Act provides for compulsory licence under this section if anyone can show that he has been unable to obtain a licence on reasonable terms he may, after a certain period of time, apply to the Registrar for a compulsory licence on the ground that the reasonable requirements of the public with respect to the invention have not been or will not be satisfied.

12. Revocation of Patent, Assignment and Licensee

There is also provision for revocation of a patent by any person interested in the Patent. Patents can also be assigned or a licence granted to another party, the licensee, for the use of the patent.

A search was carried out at the patent Registry for the period 1972 to 1983 and no records were found of there being any application for "compulsory licence" or "licences of right" or revocation of patents or application to remove a patent on grounds of "non-use" or application to assign or licence patents to local companies by foreign patentees. Why are these provisions not used? This question cannot be easily answered but the reason will become evident as this paper progresses.

13. Industrial Property Organisation for English Speaking Africa (ESARIPO)

It is appropriate to mention at this stage something about Industrial Property Organisation for English Speaking Africa, which is known as **ESARIPO**, of which Zambia is a member. As at 30th July 1985 **ESARIPO** had 12 member states namely, Botswana, Gambia, Ghana, Kenya, Malawi, Sierra Leone, Somalia, Sudan, Uganda, United Republic of Tanzania, Zambia and Zimbabwe. The Head Quarters of **ESARIPO** was established by an agreement concluded in Lusaka, at a Diplomatic Conference held in December 1976, which was convened jointly by the Economic Commission for Africa of the U.N. (ECA) and **W.I.P.O.** It arose out of the conference on Industrial Property Laws of English-speaking Africa which had been convened jointly by the **ECA** and **W.I.P.O.** in Addis Ababa in June 1974, and which had established a committee for patent matters and a Committee for Trade Mark and Industrial Design matters.³²

With the assistance of **WIPO** a special agreement was concluded in Harare in December 1982, known as the Harare Protocol³³ empowering **ESARIPO** to grant patents to register industrial designs and to administer their renewals on behalf of the contracting states in accordance with the provisions of the Protocol.³⁴ Zambia has not as yet acceded to this Protocol. The Registrar of Patents has indicated that it is expected to do so in the near future.

The Protocol establishes a system under which Patent and Industrial Design applications are processed and granted or registered on behalf of contracting states designated in the applications, by the office of **ESARIPO**. The scheme established by the Protocol enables the technical processing of patents and industrial design applications and the administration of granted patents and industrial design to be undertaken by a central authority, thereby saving contracting states the financial and manpower burden of performing these tasks individually at the national level. This Agreement leave to each individual country the right to reject an application, but leaves all technical tasks to **ESARIPO** in Harare.³⁵

33. **ESARIPO** - Protocol on Patents and Industrial Designs (Adopted on December 10, 1982)

34. High-Level Policy Planning meeting on Industrial Property in Africa Lome (Togo), July 30-August 2 1985, P.4

35. Ibid, P4.

The objectives of **ESARIPO** are the establishment of such common services or organs as may be necessary or desirable for the co-ordination, harmonization and development of the industrial property activities affecting its members. The Protocol recognises that there are advantages to be gained by the pooling of resources by its members in respect of industrial property administration. The Member countries of this organisation will be able to adopt a common view and approach to industrial property matters and therefore should be in a more powerful position in shaping of decisions relating to industrial property at the international level.

If and when Zambia accedes to this Protocol the sections of the Patent Act dealing with applications and renewals would have to be amended accordingly to provide for **ESARIPO** applications.

14. Possible effect on Zambia's Patent system

There are still a lot of questions that remain to be answered regarding the implementation and working of this system. The writer has doubts whether this system will work because of communication problems between the various countries, administrative problems and economic problems, just to mention a few.

Communication between African countries is not as efficient as communication between European Countries. Information relating to applications would be required to be transmitted speedily from one office in one country to another. Any break down in communication could delay the processing of applications. Trained personnel would be required to administer the scheme. Furthermore, if the Patent Offices are not sufficiently financed they will not be able to operate effectively.

There is a similar system in Europe called the European Patent Organisation which is working but those countries are developed and thus are not faced with the problems that less developed countries are faced with.

The idea is a good one as intellectual property is necessary for the development of any country but at this stage it is advisable to first educate industrialists in these countries on the important role patents play in the industrial development of any country.

CHAPTER FIVE

THE PARIS CONVENTION : ARGUMENTS FOR AND AGAINST THE PRESENT SYSTEM

1. The Patent System

Before proceeding further into discussions and arguments relating to the patent system one has to be clear as to what the "patent system" is. This is clearly explained in a U.N. Report which states that "international patent system" is in fact a system of accumulated practices rather than a set of fixed rules. It is the practice of international relations in the matter of the legal protection of inventions, resulting from and governed by both national legislation defining the treatment to be granted to foreigners and international treaties concerning such treatment."³⁶

Even though a country is not a party to any international treaty that country's laws relating to the treatment of foreigners will form a part of the international patent system as such laws form the basis upon which in practice inventions are protected in more than one country. Thus revision of the international patent system is not confined to international treaties but also to national industrial property affecting the inventions of foreigners.

36. UNCTAD, Geneva The role of the Patent System in the transfer of technology to Developing Countries, U.N. New York, 1975 P.14.

2. Arguments for and against the present patent system

(† Patents are important for the economic and industrial development of any country. Firstly, it is supposed to encourage the transfer of technology and investment from the developed countries to the undeveloped countries by providing the legal basis for such a transfer. Secondly, Patent documents, that is the specifications and claims, contain a detailed description of the invention thus information can be obtained from these documents which should be able to assist the undeveloped countries in their choice of the most suitable technology for their countries. Thirdly, it is supposed to be an effective means of stimulating local inventions as it gives inventors exclusive right over their inventions and assures them of reward.

There are 4 main theories³⁷ that attempt to justify the granting of patents. The first one being the "natural law theory" which argues that man has an inherent natural right in his ideas therefore he should receive from the society, which is the beneficiary of the idea, protection against unauthorised use by having exclusive legal monopoly over its use. The second one being the "reward theory"³⁸ that argues

37. Mukubwe, T. "Patents and technology transfer to undeveloped countries", Zambia Law Journal, Vol. 7-9, 1975-1977, published by University of Zambia, Lusaka, Printed in Zambia by Zambia publishing Co. pp.2-3

38. Ibid, p.4

that it is justifiable for an inventor to be granted an exclusive monopoly over his invention as a reward for his services to society. These two theories are valid. The Inventors ought to benefit from their efforts. Thirdly, the "incentive theory"³⁹ which contends that inventors and inventions are needed to ensure industrial development but investment is necessary to carry out research, thus the inventors and investors need guarantee in the form of patent that will induce them to risk their time and money and will be assured of any profits from such inventions.

The third theory is not altogether valid as from the writer's close study of inventions for which patents are granted in Zambia, it is observed that research is carried out mainly by employees of multinational corporations who assign the inventions to their employers. Thus, it is the investor who benefits mainly. The investor further benefits from tax rebates as discussed in chapter 8.

The fourth is the "Disclosure Theory".⁴⁰ Here the inventor obtains protection of his invention but he has to disclose his invention to society. However, this may not be as advantageous as it seems as there is usually other unpatentable know-how that goes with the patent which is not disclosed to society.

39. Ibid, p.7

40. Ibid, pp. 10-11 see also Machlup F. "An economic Review of the Patent System"

⁴¹In the Geo. J.. Meyer Manufacturing Co., Milwaukee in order to protect the Company's trade secrets and rights in unpatented know-how its technicians sales representatives, and other persons likely to make technical improvements or learn confidential information have to sign enforceable contracts to protect the secrecy of the employer's know-how which the employee acquires in the course of his employment. Furthermore most licence agreements provide for reciprocal disclosure of improvements, coupled with a mutual obligation to hold these disclosures in strict confidence. ⁴

There are tables in the annexure which shows the follows:-

- a) Patent applications filed and patents granted from 1980 to 1983
- b) Patents in force on December 31, 1980
December 31, 1981, December 31, 1982
December 31, 1983.
- c) Patent application filed by and patents granted to on-residents and residents from 1981 to 1983

41. Haight, J.T. "International Protections of Rights in Technology" P. 180.

The number of patent applications filed by Zambian residents is just a drop in the ocean. The number of patent applications filed in Zambia as compared to the number filed in the developed countries is negligible. Most of the patent owners in Zambia are in the U.S.A. and the U.K. with South Africa taking third place.

Patents do not induce foreign investment in Zambia as proved from the answers to a questionnaire sent to various industries in Zambia. Thus it does not encourage transfer of technology to Zambia. There are therefore other factors which have to be considered with patents which influence a company's decision to invest or not to invest in Zambia. Despite this the patentee will insist on obtaining a patent to protect its market in Zambia. There is no evidence of any patent being worked in Zambia which are owned by foreign patentees. Patents are therefore registered in Zambia as a protective measure rather than for development purposes.

Research was carried out in developing countries and a number of conclusions were drawn from this research.⁴² The most important reason for taking patents in these countries were firstly to protect their manufactured goods exported to these countries, secondly defensive, that is the intention

42. Grundman, H.E. Foreign Patent monopolies in developing countries: an Empirical analysis", 194, The Journal of Developmental Studies volume 12, January 1976, Number 2 published by Frank Cass & Co. Ltd. Gainsborough House, Gainsborough Road, London E11 1RS, PP. 191-192

to grant licence or produce in these countries. The reason revealed from questionnaires sent to companies in a number of African countries for the lack of transfer of patented technology are (a) unfavourable economic conditions (b) inadequate market (c) insufficient industrialisation (d) no request (e) exchange restrictions (f) inadequate patent protection (g) political stability (h) no real interest on the side of the Patentee. All these reasons can be summarised in two words - "economic underdevelopment". This is a cycle which has to be broken. Economic underdevelopment mainly prohibits the working of patents in undeveloped countries but these countries need these patents and other know-how to be worked in these countries to create economic progress.

This should not be taken to mean that there is no foreign investment in these countries. There is foreign investment in Zambia but not to any large extent for the purpose of working patents locally.

It is argued that changing the present system will be a step toward helping these countries to progress economically. If that is so this change has to go hand in hand with other national changes which would be responsive to investments.

The patent system in a revised form could be a convenient vehicle for the transfer of technology but the multinational corporations which own the majority of patents have modified the primary function of patent grant from a tool for encouraging inventive activity to a device for maximising profit.⁴³ This is discussed in detail in Chapter 6.

3. Reform of the Paris Convention

The Paris Convention tends to be rigid and thorough in setting specific commitments upon the signatory parties. These are the areas it is argued, revision of the Convention should be proposed.

W.I.P.O. has prepared a model Law on invention which merely serves as a reference for national legislation in developing countries that lacks expertise to analyse their countries' needs in this area. This is consistent with the basic principles of the Paris Convention.

It has been suggested by C.V. vaitos⁴⁴ that the following sections of the Paris Convention should be altered to make them more favourable to

43. Haar, P.S. "Revision of the Paris Convention: A realignment for private and public interest in the International Patent System", P.86

44. Vaitos, C.V. "The Revision of the International Patent System; Legal Consideration for a Third World Position", World Development Incorporating New Commonwealth, Vol. 4, No. 2 February 1976. Published by Pergamon Press Ltd., Oxford, New York, Paris, Frankfurt, PP. 98-99

the undeveloped countries: (a) Section A of Articles (b) Article 5 quarter (c) Article 2 and (d) Article 19.

He contends that the existing patent provisions do not tackle adequately the fundamental link between patent protection and imports of the corresponding products in developing countries. He suggests that protection of imports should be handled through the commercial policy of a country rather than through patents.

It should be noted that discussion for revision of the Paris Convention began formally in 1974 under the joint auspices of **UNCTAD** and **WIPO**.⁴⁵ Since then **WIPO** has assumed the dominant coordinating role in the revision process. The proposed revised text is now before the number of countries of **WIPO**.⁴⁵

UNCTAD is demanding that the Paris Convention should place emphasis on public interest and the right of states primarily less developed countries to grant and regulate patent privileges rather than the emphasis being placed on private⁴⁶ under the Paris Convention.

45. Harr, P.S. "Revision of the Paris Convention: a realignment of private and public interest in the International Patent System. P. 92.

46. Ibid, P. 84

It was during the sixth session ⁴⁷ of the Coordination Committee of the **W.I.P.O** held in June 1974 that the idea of possible revising of the Paris Convention was first put forward.⁴⁸ At its second session of the **W.I.P.O.** Ad Hoc Group of Governmental Experts on the Revision of the Paris Convention held in Geneva from December 15 to 22 1975 a declaration on the objectives of the Revision of the Paris Convention was adopted.

These objectives are firstly, to reduce inequalities between nations by contributing to a new economic order in the world. Secondly, Industrial Property, patents in particular, should be used as a means of the transfer of technology. Thirdly, Revision of the Paris Convention and any law should take into account (a) the need for economic development of countries. In doing so there should be a balance of such need with patent rights (b) the obligations and rights of owners of industrial property should be established and the working of patents should be promoted. (c) the need to facilitate technology innovation and development in developing countries and improve the conditions for transfer of technology in fair terms to them and also to encourage inventive activity in the developing countries (d) the need to increase the

47. WIPO - Diplomatic Conference on the revision of the Paris Convention, Geneva, February 4 to March 4, 1980 PR/SN/3 Final Summary minutes of the First Session of the Diplomatic Conference, P. 6

48. Ibid, P.7

potential of developing countries such as by controlling licensing contracts and furthermore to contribute to the building of such institutional infrastructure such as Patent Office. (e) members should be able to take measures to prevent abusive practices and finally to ensure that industrial property facilitates development. Fourthly, the giving of preferential treatment to developing countries in certain instances. Fifthly, to strengthen **WIPO's** special services relating to technical assistance to developing countries. Sixthly, to consider equality of treatment and seventhly, to allow countries maximum liberty to legislate according to its needs.

There is a draft revision of the Paris Convention as at February 4 to March 4 1980 which has been approved or forwarded to the Diplomatic Conference by the Preparatory intergovernmental Committee. In the draft the following articles have been amended; Articles 1, 5 5 quarter are to be omitted, Article A and B and 12 bis and 12 ter are to be included, and Article 13, 20, 21, 22, 23, 24, 26, 27, 28, and 30 are to be amended.

Not all these articles are of great importance to this research thus, only the relevant ones will be looked at.

4. The Draft Text

1. Article 1 of the Draft Text

The draft text includes Inventors' Certificates in addition to Patent in its objectives. There are 2 kinds of Inventors' Certificates mentioned in 1 (2) (b) (i) and (ii). The first states that they are titles by virtue of which the holder has the right to compensation and rights and privileges subject to the law of the country and the right to exploit the invention belongs to the state or exploitation by other require the authority of the state.

The second states that they are titles , which allow the holder to retain the right to exploit the invention and receive remuneration from others for their use of it approved by the authority but the holder does not have a right to exclude others using it.

The main similarities and difference between Patents and the two kinds of Inventors Certificates are as follows:-

1. A patent gives the holder the right to prevent others from exploiting it and the exclusive, right to exploit it.
The inventors' Certificate does not give these
2. The right under a patent is for a limited period of time whereas this is not the case with inventors' certificates.

An attempt is made, by the introduction of this article, to compel Patentees to work their patents by denying the holder exclusive right to either exploit it or prevent others from exploiting it.

It is suggested that Article 1(4) is amended accordingly. There is inclusion of Article (1) (5) (a) to (e) which basically deals with the various state's obligations to protect inventions and matters arising from such obligations.

4.ii Article 5A of the Draft Text

This Article covers Patents and utility models: Importation of Articles; abuses, failure to work, exploitation in the Public Interest.

It is provided in subsection (1) (a) that any country of the Union can by its national law require patents registered in that country to be worked within that country either by the owner or by someone else under the owner's authorisation.

In subsection (1) (b) it is stated that importation of patented articles does not constitute working of the patent. However, any country of the Union has the right to regard such importation as fulfilling the requirement of working.

In subsection 2(a) reference is made to "non-voluntary licence" which is licence to work a patented invention without the authorisation of the

patentee; also a licence by the Patentee to work a patented invention where he is obliged to do so under national law.

In subsection (2) (b) it is stated that any country of the Union has the right to adopt legislation to prevent the abuse of patent rights.

However, goods patented in that country and manufactured and imported from another country of the Union shall not in the absence of abuse of patent rights entail forfeiture of patent.

Under subsection (3) there shall be no provision for forfeiture of the patent except where the grant of non-voluntary licence is sufficient to prevent abuse. No proceedings for forfeiture or revocation of the Patent may be instituted before the expiration of 2 years from the grant of the first non-voluntary licence.

According to subsection (4) a non-voluntary licence may be applied for on the grounds of failure to work or insufficient working only after the expiration of 4 years from the filing of the patent application or three years from the grant of the Patent whichever expires last. If the Patentee legitimately justifies his inaction it shall be refused.

In subsection (5) it is stated that the national law of any country of the Union may by reason of public interest allow the exploitation of the invention patented in that country by the government of that country or third persons authorised by the Government.

In Subsection (6) it is stated that a non-voluntary licence shall be non-exclusive. However, in certain cases in order to ensure working of the Patent an exclusive licence may be granted for a specific period.

It is provided in subsection (7) that any decision relating to the grant of a non-voluntary licence or exploitation in the public interest or payment or revocation or forfeiture shall be subject to review at a higher level.

Finally, subsection 8 provide (1) for the granting of non-voluntary licence by developing countries in cases where the patented invention is not worked or there is insufficient working (2) also for the forfeiture and revocation of the invention for non-working or insufficient working. Only developing countries have the right to apply this provision. This provision only applies where the patented invention is not worked or is not sufficiently worked. The main reason behind this suggested item (8)(a) and (b) is to encourage working of patents.

4.iii Article 5 quarter

There is a proposal for either the omission of this article or its non-application to developing countries. This Article deals with protection of imported products.

4.iv Article A

This article provides for preferential treatment for national of developing countries in respect of fees.

4.v Article B

This article provides for preferential treatment of nationals of developing countries in respect of the term of Priority.

4.vi Article 12 Bis

This article deals with the furnishing of information, to the authorities in which country an application is pending, concerning a corresponding application pending or patent granted in another country.

4.vii Article 12 ter

This Articles deals with contribution by the Union to the development of developing countries.

These proposed amendments basically deal with the working of patented inventions in third world countries. They seek to give authorities more powers to ensure that registered patents

are worked in these countries and not registered to protect importation of the manufactured articles from another country.

The issue in this instance is not whether or not the amendments will improve the Paris Convention. It is whether or not it will have a positive impact on the Patent system in less developed countries.

The purpose of these proposed amendments is to prevent abuse of patents through non-working in Less Developed countries and enable the Paris Convention instead to play a role at the international level in the transfer of technology to Less Developed Countries. However, looking at the problem practically these proposed amendments may not have the desired effects on Less Developed Countries as national policies have an important role to play in the transfer of technology.

No industry can exist on its own. It depends on other industries as well. A Multinational Company or an individual will not be willing to work a patent in Zambia if among others there will be difficulties obtaining the necessary materials to keep the factory running and finding a profitable market. This is where national policies play an important role.

It may be argued that national legislation of each country should provide incentives for working of patents rather than possible punishment for non-working which the amendments seem to do. Here, Zambian legislation and institutions will be looked at later on to see if there are in fact incentives in Zambia for the working of Patents.

Inventions have to be put into productive operation if they are to be of any use to society. Further investment will then be needed to develop the invention for full scale production.

5. WIPO proposals and possible effect on Less Developed Countries

The main reason for the call by the less developed countries to amend the Paris Convention is to encourage or force Patentees to work their patents in these countries. Article 1 and 5A of the proposals have therefore been discussed in great detail in both the First Session⁴⁹ of the Diplomatic Conference on the revision of the Paris Convention and the meeting of the Committee I,⁵⁰ II and III⁵¹ held during the second session of the Diplomatic Conference.

49. WIPO, Diplomatic Conference on the revision of the Paris Convention, Geneva, February 4 to March 4 1980 PR/SM/3. Final summary minutes of the First session of the Diplomatic Conference.

50. WIPO, Diplomatic Conference on the revision of the Paris Convention. Second session, Nairobi, September 28th to October 24, 1981 PR/SM/6. Final summary minutes of the meetings of the Plenary and Main Committee I held during the second session of the Diplomatic Conference.

51. WIPO, Diplomatic Conference on the revision of the Paris Convention. Second session, Nairobi, September 28 to October 24, 1981 PR/SM/6 Add. Final summary minutes of the meetings of main committees II and III held during the second session of the Diplomatic Conference.

The representatives from the developed countries, Group B, are critical of these proposals.

They claim that one of the most important factors in the patent system is its objectives to promote research and inventive activity by giving a reward to the patentee and by giving to those enterprises which are orientated to research the possibility of recovering the sometimes enormous costs of research. Because of these patentee and industry are given an exclusive right to exploit the invention. However, the exclusive non-voluntary licence excludes the patentee from using the invention in that country, thus it changes the benefits given to the patentee into a burden. The patentee is thus worse off than those who produce unpatented goods as the latter can circulate freely.

There could be a negative effect on the transfer of technology and investment policies of enterprises. There is a tendency to invest in the country where there is market for the goods which is usually the group B countries. If third world countries' policies encourage investment in these countries then investment could be possible. Especially if there are markets for the goods, produced in the less developed countries, in neighbouring and other countries.

However, if there is a possibility of giving a compulsory licence in a certain market area then it will be a risk for the enterprise which invests in another country since this market can be foreclosed. Thus, the provision will not encourage enterprises to invest in less developed countries.

The provisions relating to forfeiture or revocation, Group B countries claim, is not an incentive for foreign investment in less developed countries. There was a suggestion that instead the measure be one of suspension of the patent. In that way the patent remains valid and only the rights are suspended. Thus the patentee can still work the patent.

One point was raised which apparently may have been overlooked when the provision of non-voluntary licence was being drafted in the proposals. That is a non-voluntary licensee would not generally obtain the know-how of the owner of the patent and would therefore be placed in a difficult position to compete.⁵² Furthermore, the goods would not be exportable to another country in which the invention was still protected. In addition if a patent is forfeited or revoked the chances of it being worked were nil.

52. WIPO-Diplomatic Conference on the revision of the Paris Convention, Geneva, February 4 to March 4 1980 PR/SM/3, pp.89-92.

Looking further at the issue of working of patents it may not always be economically rational to work a patent in every country in which it is registered. This proposal therefore is not rational. There is always the possibility of regional working, that is, where the working requirements are fulfilled, if the patent is worked either in the territory of that state or in the territory of one or more other states as exist in the European Community. Such an arrangement could be worked out in the Central - Southern African region especially amongst the member states of the Preferential Trade Areas Treaty countries.

The proposals seek to lessen the international protection of inventions which may instead of stimulating technology development, discourage research activities. Thus technologically developed countries would be favoured, which would be contrary to the aims of the proposals.

The developed countries do not consider inventors' certificates to represent an attractive vehicle for the transfer of technology. They are not a worthwhile system for the protection of inventions. Patents grant an exclusive right to work to the patentee but inventors' certificates only grant a right to remuneration. It also does not allow the patentee to grant a licence and it is said that it is partly through the granting of licences that

transfer of technology is effected. Granting inventors' certificates only in certain fields of technology as proposed would impede the transfer of technology. The Group B countries contend that there should be freedom of choice without exception but the Group D countries contend that there should be limited choice.

In the Socialist countries inventors' certificates are prevalent. It is contended that it ensures the most harmonious relationship between the interests of society and the interests of the inventors. The legal relationship between the state and the inventor based on an inventors' certificate created favourable conditions for the development of the national economy and stimulate inventive activity on a mass scale.⁵³

One may argue that the Group B countries are the ones which have the means to invest in the less developed countries and not the Group D countries, therefore careful attention should be paid to their contentions as amending the Paris Convention to a form that is not acceptable to Group B countries could force them to change their investment policies to the less developed countries which could be disadvantageous to the economies of these countries. Too stringent laws to ensure that technology flows can

53. Ibid, P.99

demotivate potential investors and reduce the number of patents in developing countries.

One could argue, on the other hand, that the Group B countries need the investment in the undeveloped countries. Thus, both group need each other. The interest of the Third World should therefore be taken into account so that both group benefits and not just the Group B countries.

CHAPTER SIX

MULTINATIONAL CORPORATION AND PATENTS

1. Multinational Corporation, Technology and Investment

Multinational Corporation being the major holders of Patents worldwide and thus the major controllers of patented technology cannot be ignored in any discussion on technology. It is argued that the Multinational Corporation use patents to protect their technology interests worldwide to the exclusion of all others and these patents although registered in third world countries, are not worked in these countries and thus technology transfer does not take place as patents only exist on paper. This has been proved, as a fact to be the case in Zambia. Why is this so? One has to look at the operation and business interest of the Multinational Corporations worldwide.

More than 90% of all technology transfers take place between industrialised countries. About two thirds of licencing arrangements are found in the industrialised countries of Europe, Canada and Australia. In Africa they are mainly in the Republic of South Africa.⁵⁴

54. Feld, W.J. Multinational Corporations and U.N. Politics The Quest for codes of Conduct, Pergamon Press Inc. 1980, second printing 1981, P.24

The willingness of Multinational Corporation to allow undeveloped countries to use their technology is motivated by technological, commercial, economic and political considerations. The Multinational Corporations are not willing to disclose their trade secrets as the success of their business partly depends on keeping information relating to technology a secret.

Furthermore, an adequate legal framework within which the parties to the transaction can fix their respective rights and obligations and which permits an equitable balance to be struck between on the one hand the interests of these parties and on the other, the interests of the state or public.⁵⁵

It is argued that Multinational Corporations with their large financial and physical resources control the governments of many countries in which they operate. The Multinational Corporations contend that this is not so as at times their local subsidiaries are nationalised. For example, in Chile, the government first took a majority interest in its copper mining industry then nationalised the industry altogether. In Zambia, by 1969 the country had taken 51 percent position in erstwhile foreign-owned

55. WIPO. Licensing Guide for Developing Countries. A Guide on the legal aspects of the negotiation and preparation of industrial property licenses and technology transfer agreements appropriate to the needs of developing countries, WIPO Geneva 1977. pp. 18 & 21.

Copper Companies.⁵⁶ If the Multinational Corporation controlled these Governments it could prevent nationalisation. These examples may not reflect the true position. Multinational Corporations have been known to react against nationalisation if their interest are threatened. The money which is used to operate them belongs to the owners and the purpose of the venture is to cause that investment to prosper. The multinational corporation will only invest in countries where it has reasons to believe its investment will prosper.

2. Methods of supplying technology to developing countries,

Multinational Corporations have various mechanisms for supplying technology to undeveloped countries. This may be by direct investment in a wholly owned or majority owned subsidiary; joint venture with a minority participation by the foreign firm; or management contract i.e. where the foreign firm provides most of the services provided by a direct investment but leaving out the equity capital, or licensing arrangement.⁵⁷

With the licensing arrangement the multinational corporation would be more attracted to countries with internal markets large enough to offer an attractive reward to them for providing skilled personnel to

56. Vernon, R Sovereignty at Bay, P.41

57. The acquisition of Technology from multinational corporations by developing countries, U.N. New York 1974 UND/ST/ESA/12, P.23

transfer know-how. It should not be forgotten that licensing frequently serves as a vehicle for restrictive business practices by the supplier as well as for transfer pricing. That is the goods manufactured in the Less Developed Countries by the multinational corporation subsidiary may be overpriced in order to enable the company to remit a larger amount of money outside the country from the subsidiary to the parent company in the developed country. Thus the draft code of conduct on the transfer of technology.

It may be argued that in practice technology is not transferred through any of these mechanisms what actually happens is the less developed countries only get permission to use the technology. The technology and any improvements thereon is owned by the multinational corporation.

⁵⁸One author feels that with economic advancement and educational advancement and securing of more capital by local entrepreneurs these countries may be able to take advantage of the licensing and technology contracts instead of having direct foreign investment. He is contending that for a country to be able to rely on licensing its economy should not be underdeveloped but developing. Direct foreign investment provides a more complete package of technical skills etc. than licensing

58. Salehizadeh, M.W.S. "Multinational Companies and Developing Countries: a new relationship" Third World Quarterly, January 1983, Vol. 5 No. 1 p. 136.

which only calls for the supply of a limited part of the technology. He is correct as the undeveloped countries may not be able to benefit from an agreement that only supplies a limited part of the technology as they may not be able to provide the other part of the technology required. Here again we have come back to the cycle mentioned earlier. How is it to be broken? How does the third world countries in particular Zambia begin to develop? The multinational corporation have certain international practices which make it more difficult to break this cycle with their assistance. Incentives could be provided through legislation to encourage the multinational corporations to pass on some of their technical know-how to the local people. This could be done by ensuring that the patentee derives reasonable and adequate benefit in the form of reward for the use of their patent over a reasonable period.

3. Marketing of products by multinational corporation

Pierre Bertgeron in his Antitrust Guide actually discusses in detail how the multinational Corporation operates internationally which benefits the developed countries often at the expense of the Third World countries. The Multinational Corporation

practice is to extract raw materials in Third World countries at a low cost, establish processing facilities in the developed countries to process the raw material and then sell the finished product at a much higher price with little revenue returned to the Third World Countries. Subsidiaries of Multinational Corporations in third world countries which manufacture for local consumption are also used as import channel for other products of the corporation. These subsidiaries also control the export market of third world countries. Marketing is a very important area of the Multinational Corporation which have the skill and capital to carry it out. The Multinational Corporation use their subsidiaries in developing countries to sell products of the parent company in the local area.

Local firms often have difficulties in finding markets for their goods on the international market. They therefore seek the assistance of the Multinational Corporation which eventually control the distribution of these products. Thus, not only are the third world countries hindered by Multinational Corporations from acquiring imports of technology but they also depend on them for markets. An example of this is the shoe industry in Argentina and Brazil which is controlled by large U.S. marketing firms.

Less Developed Countries are dependent on a few large buyers in each product market without which they cannot sell their goods in distant markets. IN the shoe industry, representatives of large U.S. marketing firms go into Argentina and Brazil and buy very large volumes directly from local firms. These buyers indicate the design and styles they require, they fix the prices and delivery dates, they control the productions process and quality of the product and organise the shipment and the marketing of the footwear exports.

U.S manufacturing interests spread to less developed areas partly because of their worry about losing access to large markets or being elbowed out of established small ones.⁶⁰ Despite the high costs and inefficiencies in Less Developed Countries many U.S. controlled multinationals have found it expedient to increasingly export some of their outputs from these areas.⁶¹ Some of the resources offered to the local economy by the multinational corporation are capital, technology or market access that was scarce.⁶²

These subsidiaries therefore have acces to local as well as foreign markets.

60. Vernon, R. Sovereignty at Bay, P. 98

61. Ibid, P. 102

62. Ibid, P.106

4. Research and Development and non-working of patents

J.N. Behrman and W.A. Fischer arrived at the following maxims from various conversation held with Unilever officials on the creation of effective development laboratories in Less Developed Countries:⁶³

1. There has to be a large enough business locally in order to establish a research and development laboratory which would require some 30 scientists for a range of products
2. There should be in existence other research and Development labs. such as University institutes, Government institutes and other Research and Development labs. in other companies to support the local lab.
3. An adequate number of qualified scientists should be available.
4. There has to be an economic basis for setting up a research and development lab. and a commercial benefit to the company. The lab. cannot be set up for public relation purposes.
5. The management of the local business should have an understanding of Research and Development.

63. Behrman, J.N. & Fischer, W.A. Science and Technology for Development Corporate and Government Policies and Practices, Oelgeschlager, Gunn & Hain, Publishers, Inc. Cambridge, Massachusetts 1980. pp. 61-62

6. Other parts of the local business should be able to utilise Research and Development effectively.
7. Research problems should be peculiar to the country so that they can be tackled through the local lab.

This example shows under what conditions a multinational corporation will carry out Research and Development in any country. At the present moment Zambia certainly cannot comply with all these conditions. Even if such conditions exist in any undeveloped countries it does not follow that the Multinational Corporation will carry out Research and Development in that particular country because of the Multinational Corporation's structure and operations worldwide. It may be pointed out that research carried out in the developed countries by the parent company for its subsidiary in the less developed countries has to be paid for. This may be done through pricing. This research can also be used to transfer resources from the undeveloped countries to the developed ones.

Multinational Corporations in general are interested in making profits first and foremost. If they find it is not profitable to work patents in Zambia they will not do so. They would rather import the manufactured product from their parent company in the developed countries.

At the moment the Paris Convention to which Zambia is a signatory allow them to do this. Such imported goods are protected in Zambia. It may be argued that Zambia could as a means of forcing the Multinational Corporation to work patents in Zambia block the importation of such finished goods but Zambia is too weak economically to attempt to do this. Furthermore, incentives and conditions which are necessary for the working of patents in Zambia whether under licence or otherwise do not exist. Thus, this move would not be practical.

Either Zambia imports finished patented products or do without them. These products can only be manufactured locally under licence from the Patentee. If manufactured otherwise that would be an infringement of the Patentee's patent. Once the patent has expired local industries are free to produce these goods, if they know how or if they are willing to produce them.

Working of Patents in Zambia is not compulsory. Thus Multinational Corporations are not obliged to work their patents locally. Working of patents locally would not be profitable for them.

The Majority of industries in Zambia do not carry out research locally. The majority of Multinational Corporations, have no intentions of carrying

out research in future, because their main research are carried out at their Company's research centres by the parent Company. Furthermore, highly skilled personnel to carry out sophisticated research is required which Zambia does not have. Zambia is also relatively isolated from the main current of technical advancement and the size of the market is small in comparison to the size of market in developed countries. In addition, there are no incentives for carrying out research locally, and foreign exchange restrictions further makes the situation worse. These conclusions were drawn from the replies by local industries to the questionnaire.

All these replies are not altogether valid. Zambia does have highly skilled personnel to carry out sophisticated research but the availability of such personnel may not be adequate for the purposes of the Multinational Corporations. The size of the market in Zambia should not have an adverse effect on production as the goods may be exported to other countries. The other replies from which the other conclusions are drawn are valid.

It must not however, be assumed that innovation result only from massive research. A good example of a patent that did not result from massive research is the patent entitled "The manufacture of sugarcane wine" mentioned earlier in this paper.

Zambia's exchange control Regulations states that except with the permission of the minister, no person shall -

- (a) Transfer or remit or cause to be transferred or remitted from Zambia any moneys, funds, credits or assets for the payment of a dividend outside Zambia; or
- (b) pay or cause to be paid a dividend out of any moneys, funds, credits or other assets which are outside Zambia.⁶⁴

Moneys cannot be transferred freely from Zambia unlike in the developed countries.

Due to the Multinational Corporations' international set up they will not set up a research centre and/or factory in a country like Zambia for the sake of "national interest". They have their own international interest to safeguard and protect.

64. Chapter 593 of the Laws of Zambia, Exchange Control Act and Regulations.

CODE OF CONDUCT ON THE TRANSFER OF TECHNOLOGY

1. Background of the Code

It is mentioned in the previous chapter that multinational corporations normally impose restrictive conditions in their "transfer of technology" transactions with the third world countries. This issue is such a major problem that **UNCTAD** has formulated a draft code of Conduct on the Transfer of Technology. This code has not been adopted as yet as certain parts of it are still under discussion.

The earliest formulation of a Code was done in April 1974 by a group of experts under the auspices of the Pugwash Conference on Science and World Affairs.⁶⁵ In July 1974 resolution 3(iii) of⁶⁶ the **UNCTAD** inter-governmental Group of Transfer of Technology was passed which requested the secretary - general of **UNCTAD** to convene an inter-governmental group of experts to prepare a draft outline to serve as a basis for a universally applicable code of conduct. The Intergovernmental Group of Experts on Transfer of Technology in 1975 concluded that such a Code might be feasible. Thus the group was invited to draft an outline.

65. Thompson, D. "The UNCTAD Code on transfer of Technology" Journal of World Trade Law, Volume 16: Number 4, July: August 1982, P. 312

66. TD/8/520, Annex 1 Official Record of the Trade and Development Board, Fourteenth Session, Annexes, Agenda item 8

The draft International Code of Conduct on the transfer of Technology as at the close of the fifth session of the Conference on 4th November 1983 is discussed below.

2. The Code

In the preamble the Code recognises the role of science and technology in the social and economic development of all countries especially third world countries. It believes that technology is the key to progress of mankind and as such all people have the right to benefit from any advancement in science and technology. It further recognises the need to facilitate transfer of technology to third world countries and co-operate with them in this area as a step towards creating a new international economic order. It desires to promote international co-operation in the interest of peace, security and national independence and strives to promote an increase in the international transfer of technology. It also recognises the need for special treatment to be given to third world countries by developed countries in the transfer of technology and draws attention to the need to improve the flow of technological information and information on the availability of alternative technologies and selection of appropriate technologies suited for third world countries. In addition it is believed that the Code would assist the third world

countries in their selection acquisition and effective use of technologies in order to develop improved economic standards and living conditions and that it would help to create conditions conducive to the promotion of the international transfer of technology, under mutually agreed and advantageous terms to all parties.

Definition and scope of application

The term "Transfer of Technology" is defined as ".....the transfer of systematic knowledge, for the manufacture of a product, for the application of a process or for the rendering of a service and does not extend to the transactions involving the mere sale or mere lease of goods." Transfer of technology transactions are defined as:

- (a) the assignment, sale and licensing of all forms of industrial property, except for trade marks, service marks and trade names when they are not a part of transfer to technology transactions.
- (b) the provisions of know-how and technical expertise in the form of feasibility studies, plans, diagrams, models, instructions, guides, formulae, basic or detailed engineering designs, specifications and equipment for training, services involving

technical advisory and managerial personnel, and personnel training:-

- (c) the provisions of technological knowledge necessary for the installation operation and functional of plant and equipment, and turnkey projects;
- (d) the provisions of technological knowledge necessary to acquire, install and use machinery, equipment, intermediate goods and/or raw materials which have been acquired by purchase, lease or other means;
- (e) the provisions of technological contents of industrial and technical co-operation arrangements.

Objectives and Principles

Basically the objectives of the Code is to establish general and equitable standards on which to base the relationship amongst parties to transfer of technology to developing countries; to encourage, facilitate and increase the international flow of transfer of technology transactions in particular to developing countries under conditions where the bargaining positions of the parties balanced so as to avoid abuse by the stronger party; to facilitate the international flow of technological

information in particular the availability of alternative technology, selection, adaption, development and use of technology in third world countries; to facilitate formulation; adoption and implementation of national policies, laws and regulations on the transfer of technology by setting forth international norms.

Restrictive Business Practices

Chapter 4/5 of the Code deals with restrictions which are normally included in transfer of technology transactions which usually affect the third world countries. It seeks to exclude these restrictive business practices. These are: grant back provisions relating to the improvement on the acquired technology; challenges which the acquiring party may make relating to the validity of Patents etc.; restrictions on the freedom of the acquiring party to enter into agreements with other parties in a similar area; restrictions on research by the acquiring party relating to the technology; restrictions on the use of personnel, that is the acquiring party being forced to use personnel provided by the supplying party; restrictions on the fixing of the prices of the goods produced by the acquiring party; restrictions on the acquiring party to adopt the imported technology to local conditions; restrictions on the sales of the products where exclusive right of sale or representation is given to the supplying parties; tying

arrangement requiring the acquiring party to accept additional technology, improvement etc. even though they are not wanted by the acquiring party or restricting the source of technology; export restriction by supplying party on the acquiring party of the products covered in the agreement; restrictions on territories, quantities, prices, customers or markets arising out of patent pool or cross licensing agreements; restrictions on the advertising or publicity by the acquiring party; requiring the acquiring party to continue paying or imposing other obligations for continuing the use of industrial property rights which have expired; restrictions after the expiration of agreement subject to agreement on treatment of know-how.

The terms and conditions which the parties to a transfer of technology transaction should follow when negotiating, concluding and performing an agreement is laid down in chapter 5.

Developed countries are requested in Chapter 6 to give special treatment to third world countries when the activities are to be carried out in these countries.

The need for international collaboration among governments, intergovernmental bodies and organs and agencies of the U.N. with a view to facilitating and expanding international flow of technology is recognised in chapter 7.

International institutional machinery is covered in chapter 8. States which have accepted the code should take appropriate steps at the national level to meet their commitment to the Code.

Applicable law and settlement of disputes is dealt with in chapter 9. This chapter is under consideration. There is some understanding that this chapter should cover choice of law, settlement of disputes amicably, recourse of arbitration and enforcement of arbitrial awards.

(These restrictive business practices greatly hinder the transfer of technology to developing countries as well as the development of appropriate technology within the third world countries.)

The majority of multinational corporations in Zambia have entered into technological agreements with foreign companies, their parent companies. All these agreements have restrictive practices incorporated in them. The majority entered into by parastals also have such restrictive practices. This information was obtained from the replies to the questionnaire distributed. Examples of such restrictions are firstly, that the companies only have the right to use the technology in certain arears of the world, secondly, there are restrictions concerning technical assistance and thirdly the Companies are

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to grant back any improvement on any technology developed locally. Assurance were given to the various companies to which the questionnaires were sent that their names would not be mentioned in this thesis thus it would be improper to mention the Companies' names. These restrictive business practices are to an extent limited in developed countries under antitrust legislation which does not exist in Zambia. The Industrial Development Act does attempt to prevent some restrictive business practices as will be seen in the following chapter but these provisions of the act are not effective.

3. The Code and oppositions raised

There are a number of disagreements between the Group B countries and the Group of 77 on the Code, a number of which are mentioned below.

The Group of 77 has long wanted the Code to be legally binding as Multinational Corporations would not observe its provisions if it was voluntary. Also the suppliers would be bound to supply technology at a reasonable price. This would involve some degree of compulsion which the multinational corporation would not support. In any case the multinational corporations are sometimes able to avoid national laws by shifting their actions

internationally.⁶⁷ Furthermore the developed countries would not be willing to exercise jurisdiction over multinational corporations outside their jurisdiction. The Less Developed Countries may therefore not be able to get the Developed Countries support in dealing with any acts done in breach of the Code.

The Group B countries (the developed countries) have all along insisted that the Code should be voluntary. They received consideration support from the Group D countries (Socialist countries). The Group B countries especially the U.S.A. would not have continued to negotiate on the basis of a compulsory Code. This has now been withdrawn by the Group of 77.⁶⁸ There is no longer insistence on compulsion, at least not at the present time.

Group B countries have included the qualification "unreasonably" or "unjustifiably" to the provisions in the Code dealing with restrictions. They feel it is necessary to evaluate each case individually and make a value-judgement as to the effect of the restrictions. That is the restrictions mentioned in the Code. The Group of 77 objects to this as they feel that the word "unreasonable" will allow the supplying party to impose restrictions in an arbitrary manner in the face of the Code.⁶⁹

67. Thompson, D. "the UNCTAD Code on Transfer of Technology" pp.317-318

68. Ibid, P. 318

Another issue that raises concern are instances where international transfer of technology take place between the parent and its subsidiary. The Group of 77 countries contend that restrictions existing between commonly owned enterprises should be looked at in the light of the Code restrictions but certain practices will not be considered contrary to the provisions of the Code if they do not adversely affect the transfer of technology. The Group B countries however contend that "restrictions for the purpose of rationalization or reasonable allocation of functions "between parent and subsidiary will normally be considered not contrary to the code unless e.g. it unreasonably restrain trade of a competing enterprise.⁷⁰

The Group of 77 considers that technology should be available to them on no less favourable terms as these given to other recipients. While the Group B countries argue that the terms should be the reasonable commercial terms.⁷¹

4. The future and chances of success of the Code

The Group B countries will not agree on any provision in the Code that will substantially change the present international economic order. Changes desired by the Group of 77 will take time to be accepted and they may have to be pursued partly at other forums as well. The Less Developed

⁷⁰. Ibid p. 327

⁷¹. Ibid p. 328

Countries and the Developed Countries will both have to be more compromising if the negotiations are to be concluded in the foreseeable future. At least it is a beginning for future negotiations. Agreement of the code is possible but not altogether in the form wanted by the undeveloped countries.

The Group B countries most probably will not give any more concessions. The U.S.A. is the largest net exporter of technology and if it is determined to preserve its monopoly position without regard to the interests of the rest of the world then it is possible the U.S.A. may not participate further. However, if the U.S.A. continues to recognise the right of all people to access to technology on fair and reasonable terms then there is a possibility that there could be general agreement. All groups have to participate for there to be any kind of co-ordination.

The Group of 77 may go ahead on their own but whatever agreement is made amongst them would have to have reasonable terms to attract suppliers. The Code may remain as a guideline with no mandatory measures which would please the Group B countries. In this case each country in the Less Developed world would enact national legislation laying down the conditions under which technology could be transferred. But without the participation of Developed countries this would be useless.

5. Multinational Corporation and the Code

Discussions on the Code take place between Government representatives. Multinational Corporations views are not heard and it is the Multinational Corporations that control most patents and technology world wide. Their participation could become a sensitive issue as it may be concluded that they are being treated like and given the status of Governments which they should not.

The Multinational Corporation will be required to subscribe to this Code which will not be legally binding like the Paris Union but subscribers will be bound in principle to conform to the Code. As pointed out earlier on in this Chapter the Developed Countries are reluctant to accept a Compulsory Code.

The Code if strictly adhered to, it is believed, should go some way in assisting third world countries in deriving some benefits from transfer of technology agreements.

There is the question of enforcement of the Code that would be a difficult task as the Developed countries may not always be willing to side with the third world countries against their own Multinational Corporations in enforcing the Code.

**ZAMBIA'S POLICIES TOWARDS RESEARCH AND DEVELOPMENT
AND INCENTIVES FOR RESEARCH**

For Research and Development to be carried out whether by Multinational Corporations or indigenous people incentives have to be present which should have legal backing. Zambia has to a certain extent attempted to create such incentives but whether or not these "incentives" are effective remains to be seen. Such "incentives" and also research centres will be examined and conclusions made from findings.

1. Third National Development Plan

Zambia's policy towards Research and Development may be seen in the Third National Development Plan. Its objectives and strategy are "... the Third National Development Plan has been formulated as an instrument for attaining the objectives of self reliance and socialism within the national Philosophy of Humanism".⁷² Its objective appears to be biased on political considerations rather than economical considerations. Furthermore, its objectives does not show a clear policy towards Research and Development.

The rate of growth per annum in the output manufacturing industry averaged 14.9% between 1965 and 1970 and 4.5% between 1971 and 1976.⁷³ This decrease in output in the manufacturing industry meant a heavy dependence on imported supplies.

72. Third National Development Plan 1979-83, Chapter II, P.21.
73. Ibid, P. 235

There was little progress, in fact a marginal contribution, by import substitution factories during the second National Development Plan

According to the Third National Development Plan its objectives and strategies for scientific and industrial research are

- 74(a) to strengthen and expand the scope of the National Council for Scientific Research to enable it to effectively carry out its advisory role to the Government.
- (b) to rationalize and increase the investment into research and experimental developmental activity.
- (c) to create an effective research co-ordination system that:
- (i) an active dialogue and good working relations are maintained between the research organisation and industry and extension service.
- (d) to increase the number of indigenous scientists and engineers in public and private sector so as to effectively use science and technology in enhancing self reliance as a development strategy.
- (e) to establish scientific career structure, with attractive conditions of service to attract local scientists.

- (f) to strengthen the implementation of the Industrial Development Act 1977 by establishing within the National Council for Scientific Research material testing and product quality control lab. and a technology assessment unit for assessing foreign technology to be imported and monitoring its performance and arears of adoption.

These objectives sound very promising but to what extent have these objectives been fulfilled?

2. Income Tax argument

The Income tax Act ⁷⁵ provides for investment allowances and development allowances.⁷⁶ In the former instance an investment allowance is given to a person who incurs capital expenditure on the construction of addition to or alteration of any industrial building to be used by him for the purpose of his business as a manufacturer and where a person incurs capital expenditure on the purchase of any new or unused implement, machinery or plant, other than motor vehicles intended for use or capable of being used on roads, to be used by him in his business as a manufacturer. In the latter instance a development allowance is given where a person incurs expenditure on the growing of tea, coffee, or banana plant or citrus fruit trees, or other similar plants or trees.

75. Chapter 668 of the Laws of Zambia, Income Tax Act

76. Income Tax Amendment Act No. 10 of 1981

The Tax Act⁷⁷ provides for the deduction of tax from every payment of dividend by every company incorporated in Zambia other than a pioneer industry.

There is also the provision in the Industrial Development Act that no tax shall be charged on any expenditure made by enterprises in respect of research and development.

It could therefore be argued that with these tax rebates on research and investment it is partly the public's money that would be invested in these ventures which benefits the investor as well.

3. The Constitution of Zambia

The Constitution⁷⁸ of Zambia provides that no property of any description or interest in or right over property be compulsorily taken possession of or compulsorily acquired except under the authority of an Act of Parliament which provides for payment of compensation for the property or interest or right to be taken possession of or acquired. The objects of this section is to provide for the protection of individuals from the deprivation of their property of whatever kind or nature except under an Act of parliament which should provide for compensation. This provision is necessary but unfortunately it does give powers for the enactment of Acts to

77. Income Tax (Amendment) Act No. 10 of 1979

78. The constitution of Zambia, Act No. 27 of 1973, Clause 18(1)

compulsorily acquire property which property may not be acquired justifiably by the Authorities concerned. This could lead to discouraging Patents which is an Industrial Property.

It may be contended that providing for compulsory acquisition of property in the public interest may not be wrong. What is wrong is that in Zambia determination of "public interest" is left to one person's or a few selected persons' discretion. Property is something compulsorily acquired in Zambia with little or no compensation.

There is no record in Zambia of any patents being compulsorily acquired or forfeited. There is no provision in Zambia's Patent Act for the compulsory acquiring or forfeiture of patents registered in Zambia. However, an investor in Zambia would look at the possible implications of this provision of the Constitution.

4. National Council for Scientific Research (NCSR)

The National Council for Scientific Research hereinafter referred to as **NCSR**, was established by an Act of parliament in 1967, chapter 236 of the Laws of Zambia. This act allows discoveries, inventions and improvements to be made available by the Council for use in the public interest subject to such conditions and the payment royalties. The Council has the power to apply for Letters Patent in respect of inventions.⁷⁹

⁷⁹. Chapter 236 of the Laws of Zambia, National Council for Scientific Research Act, S.12 (2) & (3)

Section 13(1) of the Act states the function of the Council is to co-ordinate and promote scientific research in Zambia with a view to ensuring that the requirements of the country's development plans are properly supported by scientific research and that the maximum use is made of the results from such research in the carrying out of those development plans.

The Council therefore is considered to be the central institution for research throughout the country.

The writer carried out a personal interview at the Council in August 1984 and came up with some findings which are stated below. There were 67 Zambian Scientific officers at the Council with degree qualification and upwards, and 14 expatriates. This is a very large number.

The Council does recognise the fact that Patents do play an important role in the industrial development of any country/Zambia. However, the Council has no registered Patents but there are new ideas which under the Zambian Patent Act and the Paris Convention does not qualify to be registered as patents.

The functions of the Council are laid down in the Act. Three of the functions which would appeal to members of the public are the Council (a) shall promote and encourage such research as is required to meet Zambia's needs.

(b) shall collect and disseminate scientific information including the publication of scientific reports journals and other literature (c) shall advise on the best ways of arousing public interest in and appreciation of the value of scientific research.⁸⁰

The Council is not a profit making body. It has to rely on the government for finance which is limited. If it was to become a profit making body it would generate a part of its own finance which could defray a part of its research costs. The Council, however, would have to work together with industries so that their research findings can be developed.⁴

Researchers can put forward ideas, suggestions to the Research Committee but the final approval as to whether or not such research should be carried out comes from "the Council" which is the governing body of the NCSR.

The Council does not appear to be confident that it has all the facilities and personnel to carry out various projects thus it does not "advertise" itself especially to industries on a large scale. It does some analytical work for industries at a fee.

The Council does not make use of expired patents but it may use certain information from the Patent specifications.

80. *ibid*, S. 13 (d) (1) & (0)

Unfortunately, the Council has done little or nothing to educate industrialists on the importance of industrial research and also encourage research in industries.

The major problem facing the areas that affects its performance are lack of sufficient financial resources. The Council normally uses local raw materials. It avoids working on projects for which materials are not available locally.

Does the Council serve any useful purpose? It does carry out some activities but considering its size it has the potential to do considerable more than it is doing. It is very disappointing that it has no patents in spite of the fact that it has so many scientists at its disposal.

Industrial Development goes together with Patents. This was proved to be a fact during the Industrial Revolution. The number of patents in any country show the country's economical strength and progress. Compare the number of patents in Japan or the U.S.A. to Zambia and it will show just how far behind Zambia is in the field of Patents.

The **NCSR** has to do more in way of meaningful research leading to invention. Industries would be required to work with the Council and advise on their needs as the industries are the ones that would be working the patents.

Research is not carried out by privately owned local companies because as one company says it has no research department, no expert staff and they feel it is not required for the present stage of development. The parastatal companies have similar reasons. They make use of **UNZA, NCSR** etc. as they have established labs and researchers. Most of this research is for import substitution purposes as opposed to invention. It is recognised that a company has to research in order to innovate. Thus, such research for import substitution is a step forward. Foreign exchange restrictions have encouraged or forced these companies to carry out research.

It is not the purpose of this research to investigate the working of the Council and make suggestions on how it can better carry out its functions. It would be worthwhile however, for such research to be carried out.

5. The Industrial Development Act

The Industrial Development Act, No. 18 of 1977 is meant to provide incentives for private investors both within and outside the country to invest in industries in Zambia.

On the second reading of the Bill on the 11th August 1977 in Parliament, the then Minister of Industry stated that the objects of the Bill are "to provide for the licensing and control of

manufacturing enterprises and to provide incentives for manufacturing enterprises which satisfy certain economic requirements; as well as to regulate the transfer of foreign technology to enterprises operating in Zambia; and also to provide for matters connected with or incidental to the foregoing."⁸¹

Part II of the Act provides for the application for manufacturing licences and other matters connected therewith. No person is allowed to manufacture anything for sale without a licence issued by the minister.

It is argued on one hand that this control by the authorities over the setting up of industries will ensure that there is even distribution of industry and deversification and to avoid duplication of effort. On the other hand however it may be argued that it can or does limit industrial activities. Why should a manufacturer be restricted in his industrial activities in Zambia which needs industries desperately? The ministry or Government should not have the authority to decide on what a manufacture should manufacture. The manufacturer knows his capabilities best. The decision should be with him. Restricting industrial activities in turn restricts industrial research and development.

81. No. 45 official verbatim Report of the Parliamentary Debate of the 4th session (Resumed) of the Third National Assembly, 9th - 19th August 1977, P. 154.

Part III of the Act is important to this research as it deals with restrictive business practices. It states that every agreement for the transfer of technology or expertise shall be registered with the ministry of Commerce and Industry. Besides causing delays in the carrying out of agreements this provision may discourage transfer of technology as the transferor may not wish to "publicize" its agreement at the ministry. This particular provision has not worked in practice and the ministry is unable to enforce it. Such agreements are not registered at the ministry. The parties to these agreements are able to disregard the law because the Ministry has not got the manpower to ensure that this section of the Act is enforced.

The Act lays down conditions which should and should not be included in any technological and expertise agreement. It seeks to include restrictive business practices which the transferor normally imposes on the transferee. Its object is to protect the transferee but the multinationals have their own policies regarding the transfer of technology. They are powerful organisations and if they are not satisfied with what Zambia has to offer they are not obliged to invest here.

The other thing that appears to be done is to ignore that part of the Act i.e. enter into an agreement with a local company with the usual restrictive business

practices and not register it at the Ministry .
although the use of patents may be included in such
agreement individual patent licence agreements may
be entered into between a Licensor (Patentee) and
licensee. Such an agreement would not fall under
this Act but under the Patent Act.

Part IV of the Act deals with incentives for
various categories of industries. There are incentives
for priority enterprises, exporting enterprises, rural
enterprises, enterprises providing training facilities
for Zambian citizens, incentives for enterprises
utilising foreign investment. Here there is no guarantee
that the enterprises wont be nationalised. Last but
not least tax rebate incentive for research and
development. Section 25 of the Act states that no
tax shall be charged on expenditure made by any
enterprise in respect of research and development
conducted by such enterprises or on behalf of such
enterprises by a recognised research institution.
This provision is not sufficient. There are many
factors that have to be considered before an enter-
prise attempts to carry out research. If the enterprise
will not benefit substantially from the research it
will not invest in research despite the tax incentive.
The replies to the questionnaire proves this contention.
This incentive has to go hand in hand with other
industrial incentives.

Part III of the Act does cover some of the provisions of the Code of Conduct discussed in the previous Chapter. These provisions which precede the adoption of the International Code of Conduct tends to the brief. They need more clarification. For example section 15(a) provides that "any royalties or fees charged shall bear a reasonable relationship to the use of such technology or expertise" what is "reasonable and relationship?" Who is to decide what is "reasonable relationship?" The parties to the agreement would, under the circumstances, decide what is "reasonable" and "relationship."

This Act could have an effect on working of patents in Zambia as the Patentee or Licensee would be required to obtain a licence, which is not given automatically, before the patent can be worked in Zambia. In light of the amendments being sought to the Paris Convention this provision of the Act would create a contradiction. On one hand a Patentee/Licensee is required by law to work a Patent in Zambia and on the other hand such a Patentee/Licence cannot work it because of the legal requirements that he would need a manufacturing licence which he may or may not get on application. In fact one privately owned local company pointed out the uncertainty relating to the obtaining of manufacturing licences in the responses to the questionnaire.

At the time of writing this paper Parliament was considering a Bill called the Investment Act, 1986, N.A.B.7 1986 dated 28th February 1986, which should replace the Industrial Development Act. It is expected that this Bill will soon become an Act.

6. The Land (Conversion of Titles) Act No. 20 of 1975

It is necessary to look at Zambia's land law as an investor may be interested in purchasing land within Zambia for the purpose of carrying out his business of whatever nature.

The Land (Conversion of Titles) Act converts all freehold land into Statutory Leasehold land for a period of 100 years from the 1st July 1975. Recently Act No. 15 of 1985, an amendment to the Land (Conversion of Titles) Act was passed which prevents non-Zambians from being granted alienated, transferred or leased land in Zambia. This amendment will serve to even more discourage investment in the country rather than encourage it. There is provision for an "investor" to purchase etc. land if he has been approved as an investor in accordance with the Industrial Development Act or any other law relating to the promotion of investment in Zambia. Thus, more "red tape" is created by the enactment of this Act.

The Land (Conversion of Titles) Act prevents any dealing in land without the consent of the state. The non-Zambian industrial investor has to:

- (a) be approved as an investor before he can apply to purchase land
- (b) apply to the state for consent to purchase the land
- (c) apply for a manufacturing licence.

These are just a few of the hurdles a non-Zambian investor, and a Zambian investor, in the case of (b) and (c) above have to overcome before he can commence his business. In each case there is uncertainty as his application may be refused by the Authorities or granted subject to unfavourable conditions on his part. These restrictions, therefore hinder rather than encourage industrial investment and research.

Although this Act affects land and not Patents it could be argued that it does reflect the government's policy on property ownerships and Patents are industrial properties. Thus, after overcoming all the hurdles mentioned above there would be that possibility of laws being enacted that would deny the Patentee ownership of his registered patent. Furthermore, an investor looks at all the laws relating to investment that would be likely to affect him. Land law being one of them.

**SUMMARY OF THE PROBLEMS IN ZAMBIA REGARDING PATENTS,
SUGGESTIONS AND CONCLUSION**

1. Problems regarding Research and Development and Patents

Economic underdevelopment is the main reason for the lack of local research in Zambia and the working of Patents which are owned by foreign patentees the market for goods is inadequate, there is insufficient industrialisation, there are exchange restrictions. The population also needs to be educated about the fact that local goods are not necessarily inferior to imported goods.

The multinational corporation does not believe their investment in research locally would benefit their business, although it would benefit Zambia. They have not entered into licensing agreements with local companies. If such an agreement is entered into then the patent would be expected to be worked locally. This the Multinational Corporations say is not viable. They are not prepared only to give and get little or nothing in return commercially. Both sides should benefit. Licensing agreements have their own drawbacks such as the restrictive business practices which can hinder further local research and development.

In Zambia there are research institutions such as the **NCSR**, **UNZA** and Mount Makulu Research Centre. However, manufacturing companies within the country do not carry out any research because they have no facilities and manpower to do so. Those that manage to do research do so on a small scale.

Furthermore, there needs to be incentives. The Industrial Development Act is meant to be an incentive but it is more of a disincentive than an incentive to the industrial sector. The so called "incentives" are not in fact incentives.

Part II of the Act restricts industrial activities in the country rather than encourage it. Industrialists on obtaining a Manufacturing licence are told what they should manufacture. The authorities ought not to have the right to do this. Let the industrialist manufacture freely. In this way industries would multiply and there would be competition which would result in the improvement of standards of local goods and an increase in the number of jobs in industry, amongst others.

Part III of the Act has good intentions but it serves no purpose. Zambia should not try at this stage to dictate to the Multinational Corporation on restrictive business practices to such an extent.

The U.N. has already taken this matter up and so far the Code of Conduct on the Transfer of Technology is still a draft and under discussion. Why should the Multinational Corporation bother to enter into agreements with local companies under these conditions? they have the resources at their disposal. They can choose the country which will benefit them most. If Zambia tries to enforce this part they may by pass this country. In addition to these bottlenecks a private enterprise can be nationalised if the highest considerations of public interest so requires. This is rather vague and does not provide very much security for the enterprise. There is a tax rebate on expenditure for research and development. This is not enough. There should be more incentives for this. Such as allowing products invented locally to be sold tax free for a specific period of time.

Leaving the foreign companies aside there are our own local companies which should be encouraged to carry out research and development. Some of their problems are similar to the Multinational Corporation. A research lab. relies on other things to functions. It needs equipment and staff which the local private companies think is not worthwhile investing in at Zambia's present economic stage. This is where the business community needs to work together to make such research centres worthwhile. At the moment the local companies on a whole are first and foremost

concerned with seeking foreign exchange to import goods to keep their companies operating.

From answers to the questionnaire the main incentives existing for carrying out research and development is that with the shortage of foreign exchange local companies are being forced to find substitutes for the imported goods. This can only be done through research. The research carried out however is for import substitution and not to lead to inventions.

How can the problems surrounding patents be solved?

Amending the various articles of the Paris Convention mentioned in chapter 5 would give the undeveloped countries a better deal theoretically but it is better to create incentives, both internationally and locally, for working of patents rather than provide punishment for the Patentee for non-working. Amending the Paris Convention may serve a useful purpose to an extent but there should be amendments of local statutes in Zambia namely, the Industrial Development Act, the Land Acquisition Act - Chapter 296 of the Laws of Zambia -; the Land (Conversion of Titles) Act No. 20 of 1975. The investor need assurances backed by law that his investment will be secured, that his property wont

be nationalised or acquired by the state. If it is in the national interest that his property be acquired, that he will be compensated adequately.

Zambia cannot only rely on multinational corporations and foreign investment to carry out research. Zambia has its own scientists, Zambians and residents who are capable of doing just as good as the foreign researchers if given the resources, encouragement and incentives. The National Council for Scientific Research should be made use of by industrialists. The Council ought to do more than it has been doing. The scientists are presumably there. They should be given the resources to enable them to assist industries more by carrying out more meaningful and indepth research using local raw material. The Council should be allowed to raise money for research from sources other than the Government for the sake of industrial progress.

Patents go hand in hand with industrial development. There is no escape from that.

CONCLUSION

The transfer of technology from the developed to the undeveloped countries has been an international topic at various international forums. We yet have to see the positive results of these discussions.

We in the undeveloped countries should know by now that developed countries will not invest in a country if they will not derive any economic benefit from them. We have to compromise with them, and not appear to be dictating to them even if it means changing local laws, which in its present form could be detrimental to the industrial sector of the country. The Less Developed Countries want what is best for them too but are not economically strong enough to bargain on their terms.

To summarise, the problem as mentioned earlier is the economic underdevelopment of Zambia. The cause of this are numerous some of which Zambia has itself to blame. The problems which are relevant to this research are:

- a) A large percentage of industrialist and business within Zambia are indifferent towards research and development
- b) There aren't sufficient incentives available to make it worthwhile for investors to risk investing in research.
- c) Zambia's industrial base is not diverse and investors are reluctant to invest in research if the returns are uncertain.
- d) The Multinational Corporations have their own policies which they try to enforce internationally regardless of their host country's policies. They will not carry out research and development in Zambia if it is not their company's policy to do so.

- e) The Paris Convention is partly to blame as it does not discourage non-working of patented inventions. Zambia being a signatory to the Paris Convention has to abide by its provisions when formulating and enacting any laws relating to industrial property.
- f) Another problem is nationalisation. There is no guarantee under the Industrial Development Act against nationalisation of industries. It is more of a problem when there is nationalisation with little or no compensation.
- g) Due to Zambia's shortage of foreign exchange profits of foreign based companies cannot be remitted quickly out of the country.

How does the country get out of this situation. Local research, first and foremost have to be encouraged. There is only one local invention, as pointed out earlier in this paper, which has been patented both in Zambia and the U.K. There should be more of such patents. Such patents if worked overseas under licence can bring in royalties for Zambia. The following suggestions should go some way in assisting Zambia to begin to solve some of its problems relating to research and development.

First the business community have to be educated on the importance of research and development. The National Council for Scientific Research should be an appropriate vehicle for carrying out this task. Zambia should not always have to look outside for this

kind of assistance, that is research and development. Secondly, the Zambia Council for Scientific Research should be allowed to play a more important role in research and development. It should not be hindered because of lack of finance. Let it generate a part of its own finance. The Council, however, cannot work on its own. It needs the co-operation and assistance of the business community which at this stage, are not able to set up their own labs. Thirdly, the Industrial Development Act, and the Land (Conversion of Titles) Act and its amendments should be amended as they create insecurity. Incentives should be created for local research and development not only for residents but also for multinational corporations and other foreign investors. These investors need something in return for investing in the country. A climate of security should be created. Zambia, on the other hand, should benefit from such agreement. Thus, the multinational Corporations would have to be bargained with. Persons specialised in the field would be required to negotiate on behalf of Zambia.

At the present time neither local or foreign owned patents are playing positive roles in the industrial development of Zambia. On the part of the multinational corporation there is apathy because of their international set up and also they feel it would not be viable to have research centres in a country like Zambia which is far behind the

industrialised world. On the part of the parastatals, which makes up the majority of industries in the country they are not geared towards having research centres in their individual industries. They make use of other research institutions to modify, improve or find a substitute for existing goods.

The number of Patents that any country has reflects the industrial progress of the country. It is true that Zambia cannot be compared with countries such as Japan and the U.S.A. They have the resources at their disposal, the manpower, financial support, incentives and what is more important an appreciation and understanding by its business community of the value and importance of inventions.

The business community in Zambia need to appreciate research and that can only come with education. Expensive and sophisticated machinery are not necessarily required to carry out research as stated earlier.

One needs support from industries when carrying out research as whatever is invented and patented has to be developed and worked.

Research and development plays a very important role in the industrial progress of developed countries. It should do the same in Zambia.

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Session of the Diplomatic
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(b) Second Session Nairobi,
September 28 to October 24,
1981 PR/SM/6 Final Summary
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Committee I held during the
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Diplomatic Conference

(c) Second Session Nairobi,
September 28 to October 24,
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Committee II and III held
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PARIS CONVENTION

List of Member States as on January 1, 1982, of the International Union for the Protection of Industrial Property (Paris Union)

founded by the Paris Convention for the protection of Industrial Property (1883), revised at Brussels (1900), Washington (1911), The Hague (1925), London (1934) Lisbon (1958), and Stockholm (1967)

State

Algeria

Argentina

Australia

Austria

Bahamas

Belgium

Benin

Brazil

Bulgaria

Burundi

Cameroon

Canada

Central African Republic

Chad

Congo

Cuba

Cyprus

Czechoslovakia

Democratic People's Republic of Korea

Denmark

Dominican Republic

Egypt
Finland
France
Gabon
German Democratic Republic
Germany, Federal Republic
Ghana
Greece
Guinea
Haiti
Holy Sea
Hungary
Iceland
Indonesia
Iran
Iraq
Ireland
Israel

Italy
Ivory Coast
Japan
Jordan
Kenya
Lebanon
Libya
Liechtenstein
Luxembourg
Madagascar
Malawi
Malta
Mauritania
Mauritius
Mexico
Monaco
Morocco
Netherlands
New Zealand
Niger
Nigeria
Norway
Philippines
Poland
Portugal

Republic of Korea
Romania
San Marino
Senegal
South Africa
Soviet Union
Spain
Sri Lanka
Suriname
Sweden
Switzerland
Syria
Tanzania
Togo
Trinidad and Tobago
Tunisia
Turkey
Uganda
United Kingdom
United States of America
Upper Volta
Uruguay
Viet Nam

Yugoslavia

Zaire

Zambia

Zimbabwe

(Total: 91 States)

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& European Patent Law, Service Information
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IP/STAT/1983/B

TWO-LETTER CODE FOR COUNTRIES, ORGANIZATIONS AND THE LIKE

| | | |
|-------------------------------|--------------------------------|--------------------------------|
| AD Andorra | GR Greece | OM Oman |
| AE United Arab Emirates | GT Guatemala | PA Panama |
| AF Afghanistan | GW Guinea-Bissau | PE Peru |
| AG Antigua and Barbuda | GY Guyana | PG Papua New Guinea |
| AL Albania | | PH Philippines |
| AN Netherlands Antilles | HK Hong Kong | PK Pakistan |
| AO Angola | HN Honduras | PL Poland |
| AR Argentina | HT Haiti | PT Portugal |
| AT Austria | HU Hungary | PY Paraguay |
| AU Australia | HV Burkina Faso* | |
| | ID Indonesia | QA Qatar |
| BB Barbados | IE Ireland | |
| BD Bangladesh | IL Israel | RO Romania |
| BE Belgium | IN India | RW Rwanda |
| BG Bulgaria | IQ Iraq | |
| BH Bahrain | IR Iran (Islamic Republic of) | SA Saudi Arabia |
| BI Burundi | IS Iceland | SB Solomon Islands |
| BJ Benin* | IT Italy | SC Seychelles |
| BM Bermuda | | SD Sudan |
| BN Brunei | JM Jamaica | SE Sweden |
| BO Bolivia | JO Jordan | SG Singapore |
| BR Brazil | JP Japan | SL Sierra Leone |
| BS Bahamas | | SM San Marino |
| BT Bhutan | KE Kenya | SN Senegal* |
| BU Burma | KH Democratic Kampuchea | SO Somalia |
| BW Botswana | KI Kiribati | SR Suriname |
| BZ Belize | KM Comoros | ST Sao Tome and Principe |
| | KN Saint Christopher and Nevis | SU Soviet Union |
| CA Canada | KP Democratic People's | SV El Salvador |
| CF Central African Republic* | Republic of Korea | SY Syria |
| CG Congo* | KR Republic of Korea | SZ Swaziland |
| CH Switzerland | KW Kuwait | |
| CI Ivory Coast* | | TD Chad* |
| CL Chile | LA Laos | TG Togo* |
| CM Cameroon* | LB Lebanon | TH Thailand |
| CN China | LC Saint Lucia | TN Tunisia |
| CO Colombia | LI Liechtenstein | TO Tonga |
| CR Costa Rica | LK Sri Lanka | TR Turkey |
| CS Czechoslovakia | LR Liberia | TT Trinidad and Tobago |
| CU Cuba | LS Lesotho | TV Tuvalu |
| CV Cape Verde | LU Luxembourg | TW Taiwan, Province of China |
| CY Cyprus | LY Libya | TZ United Republic of Tanzania |
| | | |
| DD German Democratic Republic | MA Morocco | UG Uganda |
| DE Germany, Federal | MC Monaco | US United States of America |
| Republic of | MG Madagascar | UY Uruguay |
| DJ Djibouti | ML Mali | |
| DK Denmark | MN Mongolia | VA Holy See |
| DM Dominica | MR Mauritania* | VC Saint Vincent and the |
| DO Dominican Republic | MT Malta | Grenadines |
| DZ Algeria | MU Mauritius | VE Venezuela |
| | MV Maldives | VN Viet Nam |
| EC Ecuador | MW Malawi | VU Vanuatu |
| EG Egypt | MX Mexico | |
| ES Spain | MY Malaysia | WS Samoa |
| ET Ethiopia | MZ Mozambique | |
| | | YD Democratic Yemen |
| FI Finland | NE Niger* | YE Yemen |
| FJ Fiji | NG Nigeria | YU Yugoslavia |
| FR France | NI Nicaragua | |
| | NL Netherlands | ZA South Africa |
| GA Gabon* | NO Norway | ZM Zambia |
| GB United Kingdom | NP Nepal | ZR Zaire |
| GD Grenada | NR Nauru | ZW Zimbabwe |
| GH Ghana | NZ New Zealand | |
| GI Gambia | | |
| GN Guinea | | |
| GO Equatorial Guinea | | |

*Member of OAPI

WO World Intellectual Property Organization (WIPO)
EP European Patent Organisation (EPO)
OA African Intellectual Property Organization (OAPI)
BX Benelux Trademark Office and Benelux Designs Office



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PATENTS/BREVETS

PATENTS
Chart 1aPatent applications filed and patents granted during 1983
Demandes et délivrances de brevets au cours de 1983BREVETS
Tableau

| COUNTRIES PAYS | Applications for patents filed by Demandes de brevets déposées par des | | | Grants of patents to Brevets délivrés à des | | | Country code Code du pays |
|---|---|--------------------------------|--------|--|--------------------------------|-------|------------------------------|
| | Residents Résidents | Non-residents Non-résidents | Total | Residents Résidents | Non-residents Non-résidents | Total | |
| | | | | | | | |
| Algeria/Algérie * | 15 | 278 | 293 | — | — | — | DZ * |
| | 15 | — | 15 | — | — | — | |
| Argentina/Argentine | 1102 | 2443 | 3545 | 538 | 1372 | 1910 | AR |
| Australia/Australie | 6930 | 9529 | 16459 | 557 | 6690 | 7247 | AU |
| Austria/Autriche 2 | 2345 | 2322 | 4667 | 1116 | 2699 | 3815 | AT |
| Bahrain/Bahrein | — | 28 | 28 | — | 40 | 40 | BH |
| Bangladesh | 40 | 123 | 163 | 11 | 115 | 126 | BD |
| Belgium/Belgique 2 | 805 | 2261 | 3066 | 782 | 2249 | 3031 | BE |
| Bolivia/Bolivia | 11 | 70 | 81 | 4 | 30 | 34 | BO |
| Brazil/Brésil | 2302 | 4900 | 7202 | 776 | 5285 | 6061 | BR |
| Bulgaria/Bulgarie * | 2 | 338 | 340 | 1 | 164 | 165 | BG * |
| | 3809 | 390 | 4199 | 1313 | 237 | 1550 | |
| Burundi | — | 2 | 2 | — | 2 | 2 | BI |
| Canada 3 | 2017 | 23690 | 25707 | 1359 | 19640 | 20999 | CA |
| Chile/Chili | 96 | 647 | 743 | 54 | 608 | 662 | CL |
| Colombia/Colombie | 82 | 527 | 609 | 29 | 536 | 565 | CO |
| Costa Rica | 16 | 74 | 90 | 7 | 12 | 19 | CR |
| Cuba | 156 | 31 | 197 | 116 | 60 | 176 | CU |
| Cyprus/Cyprus | 2 | 46 | 48 | 2 | 47 | 49 | CY |
| Czechoslovakia/Tchécoslovaquie 3 * | 39 | 1038 | 1077 | 6 | 844 | 850 | CS * |
| | 8678 | 552 | 9230 | 6192 | 423 | 6615 | |
| Denmark/Danemark | 1167 | 4920 | 6087 | 180 | 975 | 1155 | DK |
| Dominican Rep./République dominicaine | 25 | 66 | 91 | 23 | 116 | 139 | DO |
| Ecuador/Equateur | 24 | 112 | 136 | 4 | 82 | 86 | EC |
| Egypt/Egypte | 88 | 727 | 815 | 6 | 315 | 321 | EG |
| El Salvador | 39 | 84 | 123 | 8 | 26 | 34 | SV |
| Finland/Finlande | 1719 | 3178 | 4897 | 639 | 1585 | 2224 | FI |
| France 2 | 11147 | 10029 | 21176 | 7323 | 17720 | 25043 | FR |
| German Dem. Rep./Rép. dém. allemande | 10515 | 1614 | 12129 | 5792 | 1988 | 7780 | DD |
| Germany (Fed. Rep.)/Allemagne (Rép. féd.) | 31658 | 15445 | 47103 | 10709 | 10204 | 20913 | DE |
| Ghana | — | 14 | 14 | — | 14 | 14 | GH |
| Greece/Grèce 3 | 1251 | 1960 | 3211 | 1389 | 794 | 2183 | GR |
| Guyana/Guyane | 1 | 12 | 13 | 1 | 12 | 13 | GY |
| Haiti/Haïti | 1 | 15 | 16 | 1 | 15 | 16 | HT |
| Honduras | 16 | 24 | 40 | 9 | 27 | 36 | HN |
| Hong Kong/Hong Kong | 21 | 871 | 892 | 19 | 721 | 740 | HK |
| Hungary/Hongrie | 2760 | 1530 | 4290 | 1199 | 1234 | 2433 | HU |
| Iceland/Islande | 32 | 62 | 94 | 1 | 36 | 37 | IS |
| Indonesia/Indonésie | 40 | 682 | 722 | — | — | — | ID |
| Iraq | 33 | 128 | 161 | 23 | 132 | 155 | IQ |
| Ireland/Irlande | 567 | 2527 | 3094 | 23 | 997 | 1020 | IE |
| Iran (Islamic Rep.)/Iran (Rép. islamique) | 213 | 280 | 493 | 9 | 254 | 263 | IR |
| Israel/Israël | 687 | 2295 | 2982 | 193 | 1197 | 1390 | IL |
| Italy/Italie | — | — | 12080 | 157 | 892 | 1049 | IT |
| Jamaica/Jamaïque | 15 | 93 | 108 | — | 22 | 22 | JM |
| Japan/Japon 2 | 227708 | 24977 | 252685 | 45578 | 9123 | 54701 | JP |
| Kenya | — | 100 | 100 | — | 100 | 100 | KE |
| Korea | 1 | 37 | 38 | — | 29 | 29 | KR |
| Kuwait | 4 | 16 | 20 | 2 | 22 | 24 | KW |
| Madagascar/Madagascar | 3 | 14 | 17 | 1 | 20 | 21 | MG |
| Mexico/Mexique * | 699 | 3396 | 4095 | 162 | 2085 | 2247 | MX * |
| | 31 | 465 | 496 | 23 | 794 | 817 | |
| Morocco/Maroc | 19 | 46 | 65 | 10 | 38 | 48 | MA |



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PATENTS/BREVETS

Patent applications filed and patents granted during 1983
Demandes et délivrances de brevets au cours de 1983BREVETS
Tableau IaPATENTS
Table Ia

| COUNTRIES PAYS | Applications for patents filed by Demandes de brevets déposées par des | | | Grants of patents to Brevets délivrés à des | | | Country code Code des pays |
|---|---|--------------------------------|--------|--|--------------------------------|-------|-------------------------------|
| | Residents Résidents | Non-residents Non-résidents | Total | Residents Résidents | Non-residents Non-résidents | Total | |
| | | | | | | | |
| Mongolia/Mongolie * | — | 2 | 2 | — | — | — | MN * |
| | 12 | 30 | 42 | 12 | 30 | 42 | |
| Morocco/Maroc | 16 | 300 | 316 | 20 | 288 | 308 | MA |
| Netherlands/Pays-Bas | 1889 | 2611 | 4500 | 632 | 7729 | 8361 | NL |
| New Zealand/Nouvelle-Zélande | 1110 | 2683 | 3793 | 285 | 1649 | 1934 | NZ |
| Nicaragua | — | 64 | 64 | — | 34 | 34 | NI |
| Norway/Norvège 5 | 825 | 4068 | 4893 | 227 | 1684 | 1911 | NO |
| OAFL 6 | 17 | 268 | 285 | 12 | 392 | 404 | QA |
| Panama | 16 | 134 | 150 | 14 | 201 | 215 | PA |
| Paraguay | 5 | 50 | 55 | — | 37 | 37 | PY |
| Peru/Pérou | 77 | 266 | 343 | 27 | 330 | 357 | PE |
| Philippines | 63 | 1613 | 1676 | 52 | 1228 | 1280 | PH |
| Poland/Pologne | 4741 | 783 | 5524 | 3606 | 796 | 4402 | PL |
| Portugal | 91 | 1760 | 1851 | 20 | 1180 | 1200 | PT |
| Rep. of Korea/Rép. de Corée | 1599 | 4795 | 6394 | 245 | 2188 | 2433 | KR |
| Romania/Roumanie | 3108 | 487 | 3595 | 1617 | 991 | 2608 | RO |
| Rwanda 7 | — | 3 | 3 | — | 3 | 3 | RW |
| Saint Lucia/Sainte-Lucie | — | 5 | 5 | — | 5 | 5 | LC |
| Seychelles | — | 3 | 3 | — | 3 | 3 | SC |
| Singapore/Singapour | 5 | 852 | 857 | 3 | 388 | 391 | SG |
| Solomon Islands/Iles Salomon | — | 4 | 4 | — | 4 | 4 | SB |
| South Africa/Afrique du Sud | 4240 | 5479 | 9719 | — | — | 7381 | ZA |
| Soviet Union/Union soviétique * | — | 2027 | 2027 | 3 | 1288 | 1291 | SU * |
| | 149447 | 496 | 149943 | 72631 | 278 | 72909 | |
| Spain/Espagne | 1498 | 8352 | 9850 | 1291 | 7515 | 8806 | ES |
| Sri Lanka | 16 | 85 | 101 | 11 | 71 | 82 | LK |
| Sudan/Soudan | 7 | 67 | 74 | — | — | — | SD |
| Swaziland/Swaziland | — | — | — | — | 22 | 22 | SZ |
| Sweden/Suède | 4283 | 2958 | 7241 | 1330 | 7287 | 8617 | SE |
| Switzerland/Suisse | 3817 | 3038 | 6855 | 2093 | 9675 | 11768 | CH |
| Tanzania (United Rep.)/Tanzanie (Rép.-Unie) | 1 | 57 | 58 | 1 | 57 | 58 | TZ |
| Thailand/Thaïlande | 48 | 515 | 563 | 7 | 13 | 20 | TH |
| Tunisia/Tunisie | 19 | 197 | 216 | 20 | 189 | 209 | TN |
| Uganda/Ouganda | — | 16 | 16 | — | 16 | 16 | UG |
| United Kingdom/Royaume-Uni 2 7 | 19893 | 14798 | 34691 | 5655 | 22599 | 28254 | GB |
| United States America/Etats-Unis Amérique | 59391 | 44312 | 103703 | 32872 | 23990 | 56862 | US |
| Uruguay | 40 | 174 | 214 | 20 | 52 | 72 | UY |
| Venezuela | 625 | 1482 | 2107 | 220 | 1760 | 1980 | VE |
| Yugoslavia/Yougoslavie | 1445 | 1087 | 2532 | 126 | 807 | 933 | YU |
| Zaire/Zaire | 6 | 66 | 72 | 6 | 64 | 70 | ZR |
| Zambia/Zambie | 1 | 91 | 92 | — | 64 | 64 | ZM |
| Zimbabwe | 40 | 237 | 277 | 16 | 246 | 262 | ZW |



IP/STAT/1983/B

PATENTS/BREVETS

PATENTS
Part IIPatents in force on December 31, 1983 broken down according to the year of grant
Brevets en vigueur au 31 décembre 1983 répartis selon l'année de délivranceBREVETS
Tableau II

| CODES | 1983 | 1982 | 1981 | 1980 | 1979 | 1978 | 1977 | 1976 | 1975 | 1974 | 1973 | BEFORE AVANT 1973 | TOTAL |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------------------|--------|
| AR | 1910 | 3291 | 3513 | 4559 | 3364 | 1743 | 3009 | 4088 | 3374 | 4464 | 3889 | 24728 | 61932 |
| AU | — | 195 | 738 | 2161 | 5805 | 6163 | 5745 | 5182 | 4302 | 4281 | 3846 | 12220 | 50638 |
| AT | 3734 | 3584 | 3869 | 4247 | 4015 | 3339 | 3160 | 2716 | 2485 | 2325 | 1772 | 7065 | 42311 |
| BD | 126 | 110 | 89 | 61 | 73 | 90 | 56 | 54 | 94 | 95 | 13 | 3 | 864 |
| BE | 3031 | 3281 | 3749 | 4308 | 5157 | 6443 | 6721 | 6021 | 5119 | 4735 | 4430 | 19357 | 72332 |
| BG | 3 | 886 | 1396 | 1507 | 1560 | 1453 | 1181 | 1112 | 1148 | 1030 | 913 | 2402 | 14571 |
| BI | 2 | 2 | 5 | 10 | 1 | 4 | 4 | 9 | 6 | 4 | 2 | 61 | 110 |
| CA | 20999 | 23147 | 22696 | 23895 | 23546 | 21796 | 20793 | 21741 | 20544 | 21287 | 21246 | 168265 | 409955 |
| CL | 662 | 676 | 632 | 816 | 435 | 580 | 527 | 563 | 700 | 561 | 559 | 3221 | 9932 |
| CR | 18 | 32 | 28 | 32 | 20 | 12 | 65 | 44 | 80 | 57 | 63 | 274 | 725 |
| CU | 176 | 150 | 64 | 156 | — | 22 | 29 | 38 | 6 | 33 | 20 | 505 | 1199 |
| CY | 49 | 44 | 27 | 66 | 52 | 42 | 59 | 52 | 59 | 59 | 39 | 66 | 614 |
| DK | — | — | — | — | — | — | — | — | — | — | — | — | 10625 |
| DO | 139 | 116 | 90 | 113 | 77 | 152 | 100 | 85 | 77 | 84 | 103 | 383 | 1519 |
| EC | 86 | 70 | 34 | 77 | 110 | 120 | 160 | 12 | 23 | 40 | 106 | 159 | 997 |
| FI | 2137 | 1803 | 1535 | 1242 | 967 | 797 | 449 | 369 | 319 | 295 | 154 | 112 | 10179 |
| FR | 20653 | 19807 | 19699 | 20324 | 21502 | 22421 | 20206 | 17927 | 15692 | 14187 | 13438 | 58700 | 264556 |
| DE | 21112 | 11822 | 11184 | 16156 | 16622 | 16360 | 12559 | 9274 | 6679 | 5932 | 5163 | 4357 | 137220 |
| GH | 14 | 18 | 19 | 17 | 37 | 39 | 75 | 45 | 52 | 50 | 48 | 414 | 828 |
| GY | 13 | 7 | 25 | 35 | 26 | 21 | 19 | 33 | 33 | 43 | 15 | 177 | 447 |
| HT | 16 | 26 | 14 | 17 | — | — | — | — | — | — | — | — | 73 |
| HN | 36 | 50 | 66 | 60 | 64 | 48 | 81 | 95 | — | 12 | 45 | 391 | 948 |
| HU | — | — | — | — | — | — | — | — | — | — | — | — | 15977 |
| IS | 37 | 25 | 29 | 27 | 23 | 5 | 14 | 14 | 8 | 18 | 5 | 25 | 230 |
| IQ | 155 | 110 | 51 | 30 | 60 | 3 | 93 | 108 | 107 | 67 | 50 | 66 | 900 |
| IE | 1012 | 963 | 992 | 868 | 723 | 572 | 585 | 464 | 385 | 428 | 306 | 558 | 7856 |
| IL | — | — | — | — | — | — | — | — | — | — | — | — | 12383 |
| JM | 22 | 64 | 42 | 23 | 63 | 48 | 65 | 38 | 38 | 74 | 41 | 220 | 738 |
| JP | 54701 | 50601 | 50904 | 40112 | 35944 | 33234 | 33879 | 22797 | 23223 | 19233 | 18410 | 36105 | 419143 |
| KE | 100 | 76 | 75 | 97 | 98 | 106 | 124 | 98 | 95 | 128 | 117 | 595 | 1709 |
| MW | 29 | 48 | 24 | 25 | 20 | 25 | 32 | 24 | 28 | 25 | 16 | 37 | 333 |
| MT | 24 | 6 | 16 | 9 | 6 | 4 | 9 | 4 | 3 | 3 | 1 | 3 | 88 |
| MU | 21 | 3 | 8 | 13 | 19 | 15 | 14 | 10 | 17 | 24 | 27 | 33 | 204 |
| MX | 2247 | 2583 | 2210 | 2002 | 2027 | 1653 | 2044 | 2241 | 3638 | 3503 | 3388 | 11170 | 38706 |
| | 817 | 785 | 615 | 556 | 666 | 847 | 1230 | 190 | — | — | — | — | 5706 |
| MC | 35 | 53 | 29 | 38 | 27 | 17 | 14 | 13 | 12 | 12 | 9 | 60 | 319 |
| MN | 42 | 25 | 35 | 22 | 17 | 22 | 16 | 17 | 16 | 10 | 5 | — | 227 |
| MA | 308 | 336 | 312 | 351 | 372 | 381 | 401 | 321 | 286 | 229 | 221 | 3697 | 7215 |
| NL | 8397 | 6189 | 4427 | 2606 | 2120 | 1763 | 1669 | 1315 | 1255 | 908 | 563 | 1191 | 32403 |
| NI | 34 | 60 | 68 | 111 | 116 | 115 | 131 | 73 | 34 | 12 | 5 | — | 759 |
| NO | 1810 | 1603 | 1427 | 1444 | 1126 | 963 | 922 | 734 | 662 | 586 | 492 | 769 | 12538 |
| PA | 92 | 104 | 96 | 63 | 165 | 34 | 13 | 79 | 161 | 47 | 191 | 286 | 1331 |
| FE | 357 | 352 | 345 | 331 | 446 | 1044 | 225 | 162 | 180 | 461 | 599 | — | 4502 |
| PH | 1274 | 558 | 783 | 897 | 844 | 868 | 1037 | 862 | 749 | 795 | 729 | 2804 | 12200 |
| FL | 3915 | 3798 | 4699 | 3863 | 2627 | 1546 | 1311 | 1131 | 1115 | 402 | 62 | 210 | 24679 |
| FT | 1200 | 1213 | 650 | — | — | — | — | — | — | — | — | — | 3063 |
| KR | 2433 | 2608 | 1757 | 1277 | 1025 | 227 | 116 | 205 | 157 | 85 | 48 | 22 | 9960 |
| RW | 3 | 2 | 7 | 2 | 6 | 2 | 6 | 6 | 9 | 2 | 2 | 43 | 90 |
| LC | 5 | 1 | 10 | 14 | 15 | 2 | 4 | 2 | 9 | 10 | 9 | — | 81 |
| SC | 3 | — | 7 | 3 | 5 | 1 | 4 | 2 | 3 | 3 | 1 | 15 | 47 |
| SG | 391 | 519 | 741 | 549 | 735 | 548 | 468 | 684 | 498 | 576 | 432 | 2957 | 9018 |
| SB | 4 | 1 | 9 | 6 | 9 | 3 | 10 | 11 | 10 | 3 | 6 | 8 | 60 |
| SO | — | 8 | 15 | 9 | 19 | 9 | 4 | 19 | 16 | 8 | 2 | 114 | 213 |
| SU | 1291 | 1346 | 1395 | 1161 | 1548 | 1351 | 991 | 553 | 558 | 388 | 403 | 464 | 11413 |
| UK | 82 | 264 | 45 | 382 | — | — | — | — | — | — | — | — | 773 |
| | 22 | 29 | 25 | 11 | 27 | 27 | 14 | 9 | 11 | 11 | 15 | 39 | 240 |
| | 1 | 132 | 1406 | 4148 | 4769 | 3657 | 3621 | 4538 | 4608 | 4482 | 4208 | 14847 | 59117 |
| | 11450 | 8747 | 6806 | 4521 | 4187 | 430 | 11328 | 4929 | 4573 | 3743 | 3401 | 13171 | 77286 |
| | 20 | 4 | — | — | — | — | — | — | — | — | — | — | 24 |
| | 209 | 206 | 177 | 222 | 242 | 211 | 114 | 212 | 201 | 387 | 135 | 1915 | 4231 |



IP/STAT/1983/B

PATENTS/BREVETS

AIENTS
Chart II

Patents in force on December 31, 1983 broken down according to the year of grant
Brevets en vigueur au 31 décembre 1983 répartis selon l'année de délivrance

BREVETS
Tableau II

| CODES | 1983 | 1982 | 1981 | 1980 | 1979 | 1978 | 1977 | 1976 | 1975 | 1974 | 1973 | BEFORE AVANT 1973 | TOTAL |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------------------|---------|
| UG | 16 | 17 | 55 | 38 | 18 | 31 | 33 | 54 | 56 | 56 | 41 | 1082 | 1497 |
| GB | 27091 | 28901 | 28364 | 23647 | 20653 | 17956 | 16844 | 15381 | 12768 | 11208 | 9352 | 17384 | 229549 |
| US | 56862 | 57889 | 65770 | 61827 | 48853 | 66140 | 65269 | 70236 | 71994 | 76275 | 74139 | 478273 | 1193527 |
| UY | 72 | 108 | 180 | 267 | 108 | 153 | 176 | 156 | 264 | — | — | — | 1484 |
| ZR | 70 | 99 | 81 | 104 | 97 | 116 | 121 | 186 | 147 | 127 | 144 | 873 | 2165 |
| ZM | — | — | 2 | 10 | — | — | — | — | — | — | — | — | 12 |
| ZW | 262 | 274 | 279 | 187 | 120 | 140 | 104 | 145 | 117 | 113 | 90 | 367 | 2198 |



IP/STAT/1983/B

PATENTS

PATENTS

Chart 1b

Patent applications filed by and patents granted to
non-residents in 1983, broken down according to the country of origin

| Country of origin → | AR | AU | AT | BS | BE | BR | BG | CA | CS | DK | FI | FR | DD | DE | GR | HU | IN | IE | IL | IT |
|-------------------------------|----|-----|-----|----|-----|----|----|-----|-----|-----|-----|------|-----|------|----|-----|----|----|----|-----|
| Reporting country ↓ | | | | | | | | | | | | | | | | | | | | |
| Algeria | — | 3 | — | — | 8 | — | — | — | — | 1 | 1 | 95 | 1 | 34 | — | 6 | — | — | — | 16 |
| Argentina | — | 16 | 7 | — | 11 | 15 | 2 | 11 | 5 | 4 | 8 | 195 | — | 325 | — | 13 | — | — | 11 | 130 |
| | — | 8 | 15 | — | 6 | 7 | — | 12 | — | 10 | 5 | 121 | — | 181 | 1 | 13 | — | — | 5 | 77 |
| Australia | 2 | — | 68 | — | 43 | 7 | 7 | 175 | 5 | 32 | 41 | 388 | 1 | 871 | 1 | 33 | 1 | 13 | 50 | 161 |
| | — | — | 32 | 5 | 23 | 4 | 2 | 113 | 2 | 20 | 31 | 292 | 2 | 553 | — | 15 | 1 | 7 | 20 | 113 |
| Austria ¹ | 1 | 7 | — | — | 15 | 1 | 5 | 4 | 30 | 16 | 46 | 87 | 70 | 848 | — | 126 | — | — | 6 | 119 |
| | — | 6 | — | 3 | 24 | — | 5 | 5 | 5 | 20 | 18 | 140 | 21 | 1096 | — | 67 | — | — | 2 | 100 |
| Bahrain | — | 1 | — | — | — | — | — | — | — | — | — | 2 | — | 1 | — | — | — | — | — | — |
| | — | — | — | — | — | — | — | — | — | — | — | 5 | — | — | — | — | — | — | — | — |
| Bangladesh | — | 1 | — | — | 2 | — | — | 1 | — | — | — | 12 | — | 3 | — | — | — | — | — | 6 |
| | — | 1 | — | — | — | — | — | 1 | — | — | — | 7 | — | 4 | — | — | — | 2 | — | 10 |
| Belgium ¹ | 3 | 9 | 17 | — | — | 4 | 3 | 15 | 20 | 13 | 18 | 253 | 19 | 373 | — | 39 | 1 | 10 | 8 | 168 |
| | 3 | 9 | 17 | — | — | 4 | 3 | 15 | 20 | 13 | 18 | 252 | 19 | 370 | — | 39 | 1 | 10 | 8 | 168 |
| Bolivia | 2 | 2 | — | — | — | — | — | 1 | — | — | — | 5 | — | 6 | — | 4 | — | — | 2 | 2 |
| | 4 | — | — | — | — | — | — | — | — | — | — | 4 | — | 4 | — | 2 | — | — | — | — |
| Brazil | 19 | 34 | 19 | — | 32 | — | 2 | 51 | 1 | 13 | 29 | 366 | 1 | 858 | — | 5 | 1 | — | 14 | 220 |
| | 12 | 49 | 31 | — | 37 | — | 2 | 35 | 2 | 15 | 41 | 537 | — | 1097 | — | 9 | 1 | 1 | 3 | 185 |
| | — | 2 | 14 | — | 5 | — | — | — | — | — | 1 | 14 | 2 | 46 | — | 48 | — | — | — | 12 |
| Bulgaria * | — | — | 3 | — | — | — | — | — | — | — | — | 12 | — | 28 | — | 23 | — | — | — | 7 |
| | — | — | — | — | — | — | — | 1 | 38 | — | — | — | 133 | 1 | — | 1 | 1 | — | — | — |
| | — | — | — | — | — | — | — | — | 26 | — | — | — | 117 | — | — | — | — | — | — | — |
| Burundi | — | — | — | — | — | — | — | — | — | — | — | 1 | — | — | — | — | — | — | — | — |
| | — | — | — | — | — | — | — | — | — | — | — | 1 | — | — | — | — | — | — | — | — |
| Canada ² | 8 | 236 | 164 | 1 | 185 | 17 | 11 | — | 21 | 109 | 173 | 1206 | 3 | 1886 | 6 | 73 | 2 | 22 | 58 | 409 |
| | 1 | 166 | 126 | 3 | 150 | 7 | 9 | — | 13 | 70 | 85 | 1001 | — | 1777 | 2 | 71 | 5 | 9 | 30 | 305 |
| Chile | 4 | 7 | — | — | 4 | 5 | — | 6 | — | — | 11 | 23 | — | 124 | — | 2 | — | — | 3 | 18 |
| | 9 | 4 | 9 | — | 7 | 4 | — | 10 | — | 3 | 10 | 21 | — | 135 | — | 3 | — | — | 4 | 16 |
| Colombia | — | 5 | — | 1 | 1 | 2 | — | 4 | — | — | — | 29 | — | 31 | — | 1 | — | — | 2 | 21 |
| | 3 | 1 | — | — | — | 1 | — | 18 | — | 1 | — | 30 | — | 32 | — | — | — | — | — | 26 |
| Costa Rica | — | 1 | — | — | — | — | — | — | — | — | — | 1 | — | 7 | — | — | — | — | — | 1 |
| | — | — | — | — | — | — | — | — | — | — | — | — | — | 2 | — | — | — | — | — | — |
| Cuba | — | 1 | — | — | — | — | — | — | 1 | — | — | 5 | — | 3 | — | 4 | — | — | — | — |
| | — | 1 | — | — | — | — | — | 1 | 1 | — | — | 6 | 3 | 2 | — | 2 | — | — | — | 5 |
| Cyprus | — | — | 1 | — | 3 | — | — | — | — | 2 | — | 4 | — | 3 | — | — | — | — | 1 | — |
| | — | — | 1 | — | 3 | — | — | — | — | 2 | — | 4 | — | 3 | — | — | — | — | 1 | — |
| Czechoslovakia ² * | — | 4 | 44 | — | 7 | — | 10 | 2 | — | 5 | 10 | 63 | 2 | 235 | — | 103 | — | — | 4 | 51 |
| | — | 6 | 20 | — | 14 | — | 2 | 8 | — | 4 | 9 | 55 | 2 | 213 | — | 70 | 1 | — | — | 50 |
| | — | — | — | — | — | — | 36 | — | — | — | — | — | 249 | — | — | 4 | — | — | — | — |
| | — | — | 16 | — | 2 | — | 3 | — | — | 3 | 3 | 15 | 175 | 39 | — | 15 | — | — | — | 11 |
| Denmark | — | 42 | 37 | — | 38 | — | 2 | 29 | 14 | — | 95 | 305 | 16 | 917 | — | 61 | — | 2 | 12 | 149 |
| | — | 4 | 13 | 1 | 4 | 1 | — | 1 | 1 | — | 13 | 79 | 3 | 211 | — | 7 | 1 | 1 | 3 | 48 |
| Dominican Republic | — | — | — | — | — | — | — | — | — | — | — | 2 | — | 1 | — | — | — | — | 1 | 1 |
| | 1 | — | — | — | — | 1 | — | 1 | — | — | — | 2 | — | 2 | — | — | — | — | 3 | 1 |
| Ecuador | — | 2 | — | — | — | — | — | 1 | — | — | — | 2 | — | 11 | — | — | — | — | 2 | 10 |
| | 1 | — | — | — | 1 | — | — | — | — | — | — | 4 | — | 3 | — | 1 | — | — | — | 7 |
| Egypt | — | 10 | 4 | — | 7 | — | — | 1 | — | 5 | — | 88 | — | 86 | — | 7 | — | — | 6 | 32 |
| | — | 6 | 1 | — | 5 | — | — | 2 | — | 1 | — | 37 | — | 51 | — | — | — | — | — | 16 |
| El Salvador | — | — | — | — | — | — | — | — | — | — | — | — | — | 18 | — | — | — | — | 2 | 1 |
| | — | — | — | — | — | — | — | — | — | 1 | — | — | — | 5 | — | — | — | — | — | 1 |
| Finland | — | 19 | 51 | — | 23 | — | 1 | 41 | 7 | 76 | — | 179 | 11 | 510 | — | 61 | — | 3 | 6 | 68 |
| | — | 7 | 17 | 1 | 20 | 4 | 2 | 17 | 1 | 25 | — | 99 | — | 272 | — | 14 | — | — | 2 | 26 |
| France ¹ | 5 | 46 | 116 | 1 | 132 | 12 | 14 | 73 | 51 | 70 | 112 | — | 135 | 2342 | 1 | 93 | — | 4 | 38 | 722 |
| | 4 | 53 | 197 | 5 | 172 | 8 | 17 | 118 | 65 | 130 | 79 | — | 89 | 4559 | 2 | 149 | 2 | 14 | 34 | 820 |
| German Democratic Republic | — | 3 | 38 | — | 5 | — | 49 | 3 | 98 | 5 | 20 | 66 | — | 352 | — | 121 | — | — | — | 44 |
| | — | 6 | 46 | — | 11 | 3 | 14 | 6 | 78 | 10 | 27 | 110 | — | 568 | — | 185 | — | — | — | 67 |
| Germany (Federal Republic of) | 4 | 140 | 419 | 1 | 66 | 14 | 25 | 97 | 135 | 157 | 217 | 836 | 540 | — | 11 | 201 | 1 | 6 | 64 | 654 |
| | 1 | 20 | 198 | — | 77 | — | 5 | 74 | 45 | 92 | 50 | 855 | 91 | — | 2 | 76 | 1 | 1 | 10 | 278 |
| Ghana | — | — | — | — | — | — | — | — | — | — | — | 1 | — | 2 | — | — | — | — | — | — |
| | — | — | — | — | — | — | — | — | — | — | — | 1 | — | 2 | — | — | — | — | — | — |



IP/STAT/1983/B

BREVETS

Demandes de brevets déposées par des non-résidents et brevets
délivrés à des non-résidents, en 1983 répartis selon leur pays d'origineBREVETS
Tableau 1b

| JP | LI | LU | MX | NL | NZ | NO | PA | PL | RO | ZA | SU | ES | SE | CH | GB | US | YU | Others/Autres | TOTAL | ← Pays d'origine | |
|------|-----|----|----|-----|-----|----|----|----|----|-----|-----|-----|-----|------|------|-------|----|---------------|-------|----------------------|-----------------------------|
| | | | | | | | | | | | | | | | | | | | | ↓ Pays de délivrance | |
| 4 | 1 | — | — | 9 | — | 1 | — | — | — | — | 1 | 10 | 2 | 20 | 16 | 44 | — | 5 | 278 | — | Algérie |
| 84 | 4 | 7 | 2 | 67 | 3 | 2 | 12 | — | — | 4 | 7 | 25 | 22 | 150 | 116 | 1146 | 2 | 37 | 2443 | — | Argentine |
| 56 | 1 | 8 | 4 | 50 | 4 | 2 | 4 | — | 1 | 6 | 1 | 14 | 16 | 78 | 84 | 566 | — | 16 | 1372 | — | Australie |
| 1143 | 17 | 18 | 2 | 311 | 125 | 16 | 20 | — | — | 129 | 26 | 21 | 152 | 343 | 984 | 4182 | 1 | 62 | 9451 | — | Autriche ¹ |
| 1021 | 18 | 12 | 2 | 236 | 72 | 19 | 9 | 1 | 1 | 54 | 36 | 10 | 154 | 212 | 639 | 2938 | — | 21 | 6690 | — | Bahrein |
| 108 | 19 | 1 | — | 51 | 3 | 8 | 2 | 2 | 1 | 4 | 39 | 14 | 63 | 226 | 57 | 324 | 13 | 6 | 2322 | — | Bangladesh |
| 175 | 29 | 9 | — | 115 | 1 | 5 | 2 | 2 | — | 1 | 36 | 4 | 73 | 261 | 77 | 389 | 4 | 4 | 2699 | — | Belgique ¹ |
| 1 | — | — | — | 1 | — | — | — | — | — | — | — | 1 | 3 | 2 | 7 | 6 | — | 3 | 28 | — | Bolivia |
| 1 | — | — | — | 1 | — | 1 | — | — | — | — | — | — | 2 | — | 8 | 18 | — | 4 | 40 | — | Burundi |
| 3 | — | — | — | 3 | — | — | 9 | — | — | — | — | — | — | 11 | 26 | 44 | — | 2 | 123 | — | Canada ² |
| 2 | 7 | — | — | 6 | — | 1 | 4 | — | — | — | — | — | — | 16 | 17 | 36 | — | 1 | 115 | — | Chili |
| 126 | 11 | 10 | 1 | 119 | 4 | 6 | — | — | — | 3 | 14 | 20 | 26 | 147 | 94 | 685 | 2 | 20 | 2261 | — | Colombie |
| 126 | 11 | 10 | 1 | 118 | 4 | 6 | — | — | — | 3 | 14 | 20 | 26 | 145 | 94 | 680 | 2 | 20 | 2249 | — | Costa Rica |
| 2 | 1 | — | — | 1 | — | — | 1 | — | — | 2 | 1 | 3 | 1 | 10 | 5 | 16 | — | 3 | 70 | — | Cuba |
| 1 | — | — | — | — | — | — | — | — | — | — | — | — | — | 3 | 1 | 10 | — | 1 | 30 | — | Chypre |
| 299 | 7 | 20 | 6 | 146 | 9 | 10 | 1 | — | — | 20 | 10 | 37 | 66 | 212 | 195 | 2147 | 2 | 48 | 4900 | — | Danemark |
| 381 | 10 | 21 | 5 | 180 | 3 | 17 | 3 | 2 | — | 21 | 11 | 30 | 135 | 206 | 255 | 1933 | 2 | 13 | 5285 | — | Egypte |
| 14 | — | — | — | 2 | — | — | — | 16 | 6 | — | — | 1 | 5 | 6 | 38 | 106 | — | — | 338 | — | El Salvador |
| 9 | — | — | — | 2 | — | — | — | 1 | 1 | — | — | 2 | — | 11 | 10 | 54 | 1 | — | 164 | — | Finlande |
| — | — | — | — | — | — | — | — | — | — | — | 213 | — | — | — | 1 | 1 | — | — | 390 | — | France ¹ |
| — | — | — | — | — | — | — | — | — | — | — | 94 | — | — | — | — | — | — | — | 237 | — | Allemagne (Rep fédérale d') |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | — | — | 2 | — | Ghana |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | — | — | 2 | — | |
| 2358 | 7 | 37 | 9 | 509 | 48 | 81 | 1 | 5 | 2 | 86 | 48 | 49 | 475 | 614 | 1495 | 13042 | 5 | 229 | 23690 | — | |
| 1913 | 8 | 24 | 17 | 472 | 21 | 42 | — | 9 | 1 | 61 | 137 | 22 | 395 | 500 | 999 | 11138 | 4 | 47 | 19640 | — | |
| 11 | 2 | — | — | 29 | 5 | — | 12 | — | — | 10 | — | 6 | 10 | 47 | 42 | 258 | — | 8 | 647 | — | |
| 9 | — | 1 | 1 | 30 | 5 | — | 4 | — | — | 8 | — | 10 | 12 | 47 | 31 | 210 | — | 5 | 608 | — | |
| 5 | — | 1 | 1 | 20 | 2 | 1 | 12 | — | — | — | — | 9 | 12 | 14 | 35 | 309 | — | 9 | 527 | — | |
| 18 | 1 | — | 7 | 9 | — | — | 1 | — | — | — | — | 4 | 15 | 22 | 24 | 311 | — | 12 | 536 | — | |
| 5 | — | — | 3 | 2 | — | — | — | — | — | — | — | — | — | 3 | 3 | 48 | — | — | 74 | — | |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | — | 9 | — | — | 12 | — | |
| 1 | — | — | — | 2 | — | — | — | — | 1 | — | — | 2 | — | 9 | 1 | 1 | — | — | 31 | — | |
| 3 | — | — | — | 3 | — | — | — | — | — | — | 1 | 5 | 2 | 14 | 7 | 3 | — | — | 60 | — | |
| 3 | — | — | — | — | — | — | — | — | — | — | — | — | 1 | 9 | 9 | 9 | — | 1 | 46 | — | |
| 3 | — | — | — | — | — | — | — | — | — | — | — | — | 1 | 9 | 9 | 10 | — | 1 | 47 | — | |
| 56 | — | 5 | — | 9 | 2 | 1 | — | 26 | 4 | 1 | 1 | — | 22 | 64 | 98 | 201 | 7 | 1 | 1038 | — | |
| 50 | 1 | 1 | — | 14 | — | 1 | — | 18 | 1 | 1 | 1 | 2 | 19 | 65 | 39 | 176 | — | 1 | 844 | — | |
| — | — | — | — | — | — | — | — | — | 1 | — | 262 | — | — | — | — | — | — | — | 552 | — | |
| 5 | — | — | — | — | — | — | — | — | 3 | — | 92 | — | 5 | 14 | 6 | 15 | — | 1 | 423 | — | |
| 200 | 15 | 6 | — | 210 | 9 | 62 | 26 | — | — | 2 | 12 | 12 | 345 | 344 | 449 | 1442 | 2 | 15 | 4920 | — | |
| 62 | 3 | 2 | — | 31 | 2 | 22 | 2 | — | — | — | 5 | 1 | 99 | 65 | 75 | 212 | — | 3 | 975 | — | |
| 1 | — | — | — | 1 | — | — | — | — | — | — | — | — | — | 14 | 4 | 38 | — | 3 | 66 | — | |
| 1 | — | — | — | 6 | — | — | — | — | — | — | — | 1 | 2 | 25 | 8 | 60 | — | 3 | 117 | — | |
| 2 | 1 | — | — | 2 | — | — | 4 | — | — | — | — | 3 | 2 | 4 | 9 | 53 | — | 4 | 112 | — | |
| 3 | — | — | 3 | 2 | — | — | 1 | — | — | — | — | 2 | 3 | 3 | 2 | 40 | — | 6 | 82 | — | |
| 22 | 4 | — | 2 | 20 | — | 3 | 6 | — | 1 | 1 | 1 | 8 | 13 | 39 | 62 | 291 | — | 8 | 727 | — | |
| 11 | — | — | — | 5 | — | — | 2 | — | 1 | — | — | 5 | 2 | 15 | 19 | 132 | 1 | 3 | 315 | — | |
| 2 | — | — | — | 8 | — | — | — | — | — | — | — | — | — | 13 | 7 | 33 | — | — | 84 | — | |
| — | — | — | — | 1 | — | — | 1 | — | — | — | — | — | — | 4 | — | 10 | — | 3 | 26 | — | |
| 96 | 11 | 9 | — | 108 | 2 | 42 | 15 | 5 | — | 9 | 56 | 6 | 426 | 205 | 245 | 873 | 2 | 12 | 3178 | — | |
| 52 | 13 | 2 | 1 | 47 | — | 46 | 9 | — | — | 2 | 45 | 3 | 274 | 111 | 119 | 348 | 1 | 5 | 1585 | — | |
| 1840 | 39 | 15 | 3 | 253 | 8 | 24 | — | 6 | 1 | 22 | 215 | 120 | 187 | 429 | 433 | 2575 | 11 | 81 | 10029 | — | |
| 2197 | 60 | 44 | 5 | 769 | 8 | 37 | 16 | 17 | 4 | 30 | 383 | 93 | 491 | 1110 | 970 | 4920 | 12 | 34 | 17720 | — | |
| 40 | 3 | 2 | 2 | 30 | 1 | 3 | 10 | 25 | 7 | — | 312 | 4 | 23 | 78 | 60 | 197 | 6 | 7 | 1614 | — | |
| 68 | 6 | 4 | 54 | — | 2 | 6 | 28 | 2 | — | 120 | 9 | 28 | 147 | 62 | 308 | 7 | 6 | 1988 | — | | Rep. démocratique allemande |
| 1390 | 145 | 18 | 14 | 323 | 16 | 55 | 1 | 31 | 1 | 35 | 564 | 86 | 474 | 1127 | 650 | 3825 | 29 | 83 | 15445 | — | |
| 1390 | 40 | 20 | 2 | 434 | 6 | 21 | 10 | 22 | 5 | 7 | 347 | 24 | 270 | 818 | 498 | 3141 | 8 | 35 | 10204 | — | |
| 2 | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | 2 | 5 | — | 1 | 14 | — | |
| 2 | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | 2 | 5 | — | 1 | 14 | — | |



IP/STAT/1983/B

PATENTS

PATENTS

Chart 1b

Patent applications filed by and patents granted to
non-residents in 1983, broken down according to the country of origin

| Country of origin → Reporting country ↓ | AR | AU | AT | BS | BE | BR | BG | CA | CS | DK | FI | FR | DD | DE | GR | HU | IN | IE | IL | JP |
|--|----|-----|-----|----|-----|----|----|-----|----|-----|-----|------|-----|------|----|-----|----|----|----|-----|
| Greece 2 | — | 14 | 13 | — | 45 | — | 6 | 11 | — | 10 | 3 | 188 | 5 | 332 | — | 38 | — | 2 | 5 | 1 |
| | — | 2 | 6 | 2 | 14 | — | 2 | 3 | 2 | 1 | 4 | 60 | — | 149 | — | 11 | 2 | 1 | 2 | — |
| Guyana | — | — | — | — | — | — | — | — | — | — | — | 1 | — | 1 | — | — | — | — | — | — |
| | — | — | — | — | — | — | — | — | — | — | — | 1 | — | 1 | — | — | — | — | — | — |
| Haiti | — | — | — | — | — | — | — | — | — | — | — | 1 | — | — | — | — | — | — | — | — |
| | — | — | — | — | — | — | — | — | — | — | — | 1 | — | — | — | — | — | — | — | — |
| Honduras | — | 2 | — | — | — | — | — | 1 | — | — | — | — | — | 4 | — | — | — | — | — | — |
| | — | — | — | — | — | — | — | — | — | — | — | — | — | 3 | — | — | — | — | — | — |
| Hong Kong | — | 10 | 1 | — | 1 | — | — | 2 | — | 4 | 2 | 32 | 1 | 63 | — | — | — | — | 2 | 1 |
| | — | 7 | 1 | — | 2 | — | — | 1 | — | 2 | 1 | 28 | — | 50 | — | — | — | — | — | 1 |
| Hungary | — | 7 | 53 | — | 3 | — | 23 | 8 | 37 | 2 | 7 | 94 | 156 | 329 | — | — | — | — | 7 | 3 |
| | — | 2 | 38 | 1 | 9 | — | 11 | 1 | 13 | 3 | 9 | 76 | 98 | 305 | — | — | — | — | — | 4 |
| Iceland | — | — | — | — | — | — | — | 3 | — | 1 | — | 5 | — | 8 | — | — | — | — | — | — |
| | — | — | — | — | — | — | — | 1 | — | — | — | 2 | — | 5 | — | — | — | 1 | — | — |
| Indonesia | — | 12 | — | — | 5 | — | — | 2 | — | 3 | 1 | 64 | — | 30 | — | 3 | 1 | — | — | 15 |
| | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Iraq | — | 6 | 2 | — | 2 | — | — | 2 | — | 2 | — | 22 | 3 | 11 | — | 4 | 1 | — | — | 4 |
| | — | 4 | 1 | — | 4 | — | — | — | — | 3 | 1 | 29 | 1 | 7 | — | 10 | — | — | — | 17 |
| Ireland | — | 22 | 11 | — | 15 | — | — | 18 | — | 30 | 17 | 201 | — | 252 | 1 | 7 | — | — | 3 | 88 |
| | — | 1 | 2 | — | 10 | — | — | 3 | — | 11 | 4 | 130 | — | 131 | — | — | — | — | 1 | 3 |
| Iran (Islamic Republic of) | — | 1 | 1 | — | — | 2 | — | 1 | — | 1 | — | 30 | — | 39 | — | 5 | — | — | — | 17 |
| | 3 | 2 | 3 | — | 2 | — | — | — | — | 2 | 1 | 31 | — | 42 | 1 | 3 | — | — | — | 17 |
| Israel | — | 22 | 10 | — | 3 | — | — | 8 | — | 7 | 3 | 141 | — | 350 | 2 | 27 | — | — | — | 61 |
| | — | 7 | 4 | 1 | 6 | — | — | 2 | — | 3 | 1 | 70 | — | 201 | — | 17 | — | — | — | 28 |
| Italy | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | — | 5 | 7 | — | 12 | 2 | 2 | 5 | 2 | 9 | 6 | 81 | — | 196 | — | 3 | — | — | 1 | — |
| Jamaica | — | — | — | — | — | 1 | — | 1 | — | — | — | 3 | — | 4 | — | 1 | — | — | — | — |
| | — | — | — | 1 | — | — | — | 1 | — | — | — | — | — | 2 | — | 2 | — | — | — | — |
| Japan 6 | 3 | 128 | 205 | 3 | 140 | 9 | 25 | 323 | 45 | 101 | 94 | 1682 | 84 | 5285 | 7 | 106 | 5 | 9 | 73 | 610 |
| | 1 | 45 | 66 | — | 54 | 4 | 3 | 97 | 25 | 50 | 25 | 539 | 8 | 1692 | — | 21 | — | 1 | 7 | 177 |
| Kenya | — | — | 2 | — | 5 | — | — | — | — | 3 | — | — | — | 6 | — | 1 | 1 | — | 1 | 4 |
| | — | — | 2 | — | 5 | — | — | — | — | 3 | — | — | — | 6 | — | 1 | 1 | — | 1 | 4 |
| Malawi | — | 1 | — | — | — | — | — | 3 | — | — | — | 1 | — | — | — | — | — | — | — | 7 |
| | — | 4 | — | — | — | — | — | 1 | — | — | — | — | — | — | — | — | — | — | — | 4 |
| Malta | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | — | — | — | — | — | 4 |
| | — | — | 1 | — | 1 | — | — | — | — | — | — | 1 | — | 3 | — | — | — | — | — | 3 |
| Mauritius | 1 | 2 | — | — | — | — | — | — | — | — | — | 1 | — | — | — | — | — | — | — | — |
| | — | 1 | — | — | — | — | — | — | — | — | — | 1 | — | 1 | — | — | 1 | — | — | — |
| Mexico * | 5 | 23 | 7 | 2 | 6 | 13 | 2 | 31 | 5 | 10 | 15 | 179 | — | 205 | — | 10 | 1 | — | 12 | 73 |
| | 2 | 17 | 9 | — | 11 | 11 | — | 27 | 1 | 3 | 10 | 131 | — | 175 | — | 3 | 1 | 2 | 8 | 52 |
| | — | 7 | 6 | — | 1 | — | — | 6 | — | 2 | — | 45 | — | 50 | — | — | — | — | 2 | 12 |
| | 3 | 1 | 2 | 2 | 5 | — | — | 9 | — | — | 1 | 88 | — | 66 | — | 11 | — | — | 1 | 21 |
| Monaco | — | — | — | — | 3 | — | — | 1 | — | — | — | 10 | — | — | — | — | — | — | — | 2 |
| | — | — | — | — | — | — | — | — | — | — | — | 13 | — | — | — | — | — | — | — | 1 |
| Mongolia * | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 2 | — | — | — | — |
| | — | — | — | — | — | — | 1 | — | — | — | — | — | 2 | — | — | 2 | — | — | — | — |
| | — | — | — | — | — | — | 1 | — | — | — | — | — | 2 | — | — | 2 | — | — | — | — |
| Morocco | — | 2 | 4 | — | 9 | — | — | 1 | — | 2 | 1 | 110 | — | 34 | — | 4 | — | — | — | 8 |
| | — | 1 | — | — | 2 | 1 | — | 2 | — | 1 | 1 | 111 | — | 36 | — | 1 | — | — | — | 14 |
| Netherlands | 2 | 10 | 22 | — | 55 | 1 | 4 | 12 | 10 | 28 | 22 | 156 | 15 | 474 | 1 | 33 | — | — | 15 | 132 |
| | — | 31 | 114 | 3 | 113 | — | 2 | 38 | 4 | 33 | 13 | 1034 | 2 | 2336 | — | 24 | 1 | 6 | 6 | 138 |
| New Zealand | — | 248 | 12 | — | 9 | 1 | 1 | 38 | — | 10 | 4 | 127 | — | 190 | — | 9 | 1 | 6 | 7 | 46 |
| | — | 146 | 8 | — | 13 | 1 | — | 16 | — | 13 | 10 | 86 | — | 106 | — | 13 | — | 4 | 2 | 37 |
| Nicaragua | — | — | — | — | — | — | — | — | — | — | — | — | — | 10 | — | — | — | — | — | — |
| | — | — | — | — | — | — | — | — | — | — | — | — | — | 7 | — | — | — | — | — | 2 |
| Norway 7 | — | 32 | 36 | — | 20 | 1 | 3 | 61 | 2 | 84 | 154 | 278 | — | 568 | — | 27 | 1 | 1 | 8 | 88 |
| | — | 5 | 23 | 2 | 19 | — | 1 | 15 | 1 | 34 | 58 | 161 | 1 | 261 | — | 11 | — | — | 2 | 65 |
| OECD | 2 | 1 | — | — | 1 | — | — | 4 | — | 2 | — | 151 | — | 9 | — | — | — | — | — | 4 |
| | — | 5 | 1 | — | 7 | 1 | — | 4 | — | 1 | — | 150 | — | 21 | — | — | — | — | — | 14 |



IP/STAT/1983/B

BREVETS

Demandes de brevets déposées par des non-résidents et brevets délivrés à des non-résidents, en 1983 répartis selon leur pays d'origine

BREVETS
Tableau Ib

| JP | LI | LU | MX | NL | NZ | NO | PA | PL | RO | ZA | SU | ES | SE | CH | GB | US | YU | Others/Autres | TOTAL | ← Pays d'origine |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|------|----|---------------|-------|-----------------------|
| | | | | | | | | | | | | | | | | | | | | ↓ Pays de délivrance |
| 52 | 6 | 2 | — | 70 | 2 | 4 | 1 | — | — | 3 | 2 | 9 | 28 | 107 | 193 | 653 | — | 8 | 1960 | Grèce ² |
| 8 | 3 | 4 | 2 | 22 | 1 | 1 | — | — | — | 3 | 1 | 10 | 7 | 100 | 26 | 264 | — | 4 | 794 | |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | 2 | 2 | 6 | — | — | 12 | Guyane |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | 2 | 3 | 5 | — | — | 12 | |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | 12 | — | 1 | 15 | Haiti |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | 12 | — | 1 | 15 | |
| — | — | — | 1 | — | — | — | — | — | — | — | — | — | — | 2 | 1 | 12 | — | 1 | 24 | Honduras |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4 | 1 | 16 | — | — | 27 | |
| 191 | 3 | — | — | 32 | 5 | 1 | — | — | — | — | — | — | 13 | 62 | 120 | 288 | — | 16 | 871 | Hong-Kong |
| 132 | 5 | — | — | 37 | — | 1 | 2 | — | — | — | — | — | 10 | 55 | 115 | 246 | — | 10 | 721 | |
| 88 | 3 | 2 | — | 45 | 3 | — | 8 | 17 | 4 | 1 | 28 | 1 | 17 | 110 | 105 | 324 | 7 | 2 | 1530 | Hongrie |
| 54 | 5 | — | — | 51 | — | 4 | — | 22 | 4 | — | 47 | — | 15 | 99 | 61 | 258 | 5 | 1 | 1234 | |
| 2 | — | — | — | 1 | — | 11 | — | — | — | — | — | — | 11 | 6 | 4 | 9 | — | — | 62 | |
| 1 | — | 2 | — | — | — | 4 | — | — | — | — | — | — | — | 3 | 2 | 13 | — | 2 | 36 | Islande |
| 141 | 1 | — | — | 22 | 4 | 5 | — | — | — | 5 | — | 4 | 7 | 12 | 36 | 277 | — | 32 | 682 | |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | Indonésie |
| 6 | — | — | — | — | — | — | 3 | — | — | — | 2 | 4 | 9 | 6 | 26 | 10 | 2 | 1 | 128 | |
| 14 | 1 | — | 1 | 2 | — | — | 2 | 2 | — | — | 1 | 1 | 11 | 5 | 15 | — | — | — | 132 | Iraq |
| 93 | 6 | 4 | — | 74 | 12 | 10 | 1 | — | — | 4 | 1 | 3 | 41 | 153 | 451 | 1003 | — | 6 | 2527 | |
| 25 | 1 | 6 | — | 41 | 4 | 3 | 1 | — | — | 3 | 2 | 5 | 24 | 62 | 158 | 333 | — | 4 | 997 | Irlande |
| 9 | — | — | 2 | 12 | 1 | — | — | — | — | — | 1 | 4 | 17 | 20 | 32 | 79 | 2 | 4 | 280 | |
| 11 | — | — | — | 10 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 254 | Iran (Rép. islamique) |
| 54 | 1 | — | 1 | 31 | 4 | 1 | — | — | 1 | 15 | — | 11 | 21 | 134 | 228 | 1157 | — | 2 | 2295 | |
| 24 | 4 | 1 | — | 15 | 3 | — | — | — | — | 7 | — | 2 | 8 | 73 | 89 | 628 | — | 3 | 1197 | Israël |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| 54 | 1 | 3 | — | 43 | — | 5 | — | 1 | 1 | 4 | 3 | 2 | 22 | 48 | 81 | 292 | — | 1 | 892 | Italie |
| 4 | — | — | — | — | — | — | — | — | — | — | — | — | — | 19 | 17 | 41 | — | 2 | 93 | |
| 2 | — | — | — | — | — | — | — | — | — | — | — | — | 2 | 2 | 7 | 3 | — | — | 22 | Jama |

PATENTS

ALIENS

Part II

Patent applications filed by and patents granted to non-residents in 1983, broken down according to the country of origin

| Country of origin → | AR | AU | AT | BS | BE | BR | BG | CA | CS | DK | FI | FR | DD | DE | GR | HU | IN | IE | IL | IT |
|---------------------|--------|----------|----------|---------|-----------|--------|----------|----------|----------|----------|-----------|--------------|------------|--------------|---------|-----------|---------|--------|----------|------------|
| Reporting country ↓ | | | | | | | | | | | | | | | | | | | | |
| Panama | — 1 | — — | — — | — 28 | 4 3 | — — | — — | — — | 1 1 | — — | — — | 11 3 | — 1 | — 2 | — — | — 1 | — — | — — | — — | 2 — |
| Paraguay | 3 3 | — — | — — | — — | — — | 5 2 | — — | — — | — — | — — | — — | — 1 | — 4 | 6 — | — — | — — | — — | — — | — — | 2 1 |
| Penn | 2 — | 4 2 | — — | — — | — 2 | 3 7 | — — | 3 7 | — — | — — | 7 5 | 20 15 | — — | 19 26 | — 1 | 5 4 | — — | — — | 2 — | 10 16 |
| Philippines | — 2 | 48 18 | 3 3 | — — | 40 7 | — 2 | — — | 25 12 | 1 — | 18 2 | 4 9 | 72 61 | — — | 251 106 | — — | 9 6 | 13 — | — — | 8 1 | 44 41 |
| Poland | — — | 2 2 | 32 15 | — 1 | 7 12 | 1 1 | 10 1 | 4 7 | 15 13 | 5 5 | 6 14 | 53 54 | 16 22 | 127 168 | — — | 68 83 | 2 — | — — | 3 — | 20 22 |
| Portugal | 1 1 | 6 5 | 17 7 | — — | 21 17 | 7 — | — — | 9 6 | — 2 | 12 5 | 5 6 | 266 166 | — — | 262 155 | — — | 18 18 | — — | 1 1 | 5 3 | 90 64 |
| Republic of Korea | — — | 28 8 | 12 1 | — — | 19 10 | 1 — | — — | 34 8 | — — | 21 7 | 12 2 | 237 61 | — — | 315 119 | — — | — — | — — | 6 — | 9 — | 68 24 |
| Romania | — — | 2 3 | 17 13 | — 3 | 4 6 | — 1 | 11 11 | — 4 | 11 4 | 3 4 | 5 3 | 25 110 | 46 57 | 41 218 | — — | 38 51 | — — | — — | 2 2 | 18 28 |
| Rwanda ² | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — |
| Saint Lucia | — — | — — | — — | — — | 1 1 | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — |
| Seychelles | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — |
| Singapore | — — | 16 4 | — — | — — | 4 1 | — — | — — | 4 1 | — 1 | 7 2 | 1 1 | 29 30 | — — | 62 — | — 24 | 2 — | 1 — | — — | 6 — | 9 7 |
| Solomon Islands | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — | — — |
| South Africa | 3 — | 137 — | 66 — | — — | 11 — | 7 — | — — | 33 — | — — | 20 — | 30 — | 329 — | — — | 929 — | — — | 19 — | — — | 7 — | 48 — | 108 — |
| Soviet Union * | — — | 8 2 | 47 26 | — 1 | 12 16 | — — | 1 — | 15 12 | — — | 21 11 | 115 31 | 174 119 | 2 — | 408 303 | 1 — | 158 68 | — — | — — | 3 — | 83 63 |
| | — — | — — | — — | — — | — 1 | — — | 49 12 | — 47 | 101 — | — — | 1 — | 3 1 | 324 209 | 1 — | — 3 | 3 — | — — | — — | — — | — — |
| Spain | 5 5 | 44 29 | 76 51 | — 2 | 108 71 | 6 9 | 7 15 | 64 44 | 12 8 | 42 41 | 23 36 | 1149 1044 | 1 1 | 1408 1474 | — 5 | 56 60 | 1 1 | 2 5 | 16 19 | 420 436 |
| Sri Lanka | — — | 3 1 | — — | — — | 1 — | — — | — — | — — | — — | 1 — | — — | 4 3 | — — | 10 8 | — — | — 3 | — 3 | — — | 2 2 | |



IP/STAT/1983/B

BREVETS

Demandes de brevets déposées par des non-résidents et brevets
délivrés à des non-résidents, en 1983 répartis selon leur pays d'origineBRIEF
Tableau

| IP | LI | LU | MX | NL | NZ | NO | PA | PL | RO | ZA | SU | ES | SE | CH | GB | US | YU | Autres | TOTAL | ← Pays d'origine | |
|------|----|----|----|------|-----|-----|----|----|----|-----|-----|-----|------|------|------|------|----|--------|-------|----------------------------|---|
| | | | | | | | | | | | | | | | | | | | | ↓ Pays de délivrance | |
| 3 | - | - | - | - | - | - | - | - | - | - | - | 2 | - | 11 | 5 | 88 | - | 7 | 134 | Panama | |
| - | - | 1 | - | 5 | - | 1 | - | - | - | 5 | - | 16 | - | 1 | 10 | 108 | - | 19 | 201 | Paraguay | |
| - | - | - | - | 3 | - | - | - | - | - | - | - | 2 | - | 2 | 1 | 20 | - | 2 | 50 | Pérou | |
| - | - | - | 2 | 3 | - | 2 | 6 | - | - | 2 | 3 | 8 | 1 | 5 | 12 | 138 | - | 6 | 266 | Philippines | |
| 8 | - | - | 4 | 11 | - | - | 3 | - | - | 1 | 2 | 4 | 8 | 6 | 20 | 161 | - | 14 | 330 | Pologne | |
| 129 | - | - | - | 7 | 4 | 11 | - | - | - | 6 | - | 2 | 34 | 84 | 178 | 543 | 1 | 28 | 1613 | Portugal | |
| 199 | - | - | 2 | 16 | - | 2 | 1 | - | - | 1 | - | 2 | 20 | 96 | 56 | 556 | - | 7 | 1228 | République de Corée | |
| 14 | 2 | 4 | - | 25 | 1 | 2 | 12 | - | - | - | 5 | 1 | 16 | 40 | 70 | 214 | 5 | 1 | 783 | Roumanie | |
| 18 | 1 | 5 | 1 | 22 | - | 1 | 1 | - | 1 | 1 | 13 | - | 18 | 42 | 48 | 202 | 2 | - | 796 | Rwanda | 2 |
| 49 | 6 | 11 | - | 76 | - | 9 | 14 | 1 | - | 9 | 6 | 41 | 40 | 126 | 172 | 469 | 2 | 9 | 1760 | Sainte-Lucie | |
| 40 | 4 | 1 | 1 | 47 | 1 | 3 | 3 | - | 1 | 4 | - | 41 | 18 | 90 | 136 | 330 | 1 | 3 | 1180 | Seychelles | |
| 1044 | 4 | 11 | 2 | 100 | 7 | 3 | 12 | - | - | 3 | - | 9 | 57 | 143 | 209 | 1586 | 4 | 39 | 4795 | Singapour | |
| 1039 | - | - | - | 59 | 1 | 4 | - | - | - | 3 | - | 1 | 15 | 65 | 98 | 657 | - | 6 | 2188 | Union soviétique | * |
| 17 | 3 | - | - | 8 | - | 1 | - | 14 | - | - | 16 | 1 | 6 | 13 | 32 | 151 | 2 | - | 487 | Espagne | |
| 22 | 2 | 4 | 1 | 23 | - | 3 | 3 | 27 | - | - | 44 | 2 | 5 | 47 | 44 | 241 | 4 | 1 | 991 | Sri Lanka | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 2 | - | - | 3 | Soudan | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 2 | - | - | 3 | Souaziland | |
| 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 1 | - | - | - | 5 | Suède | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 1 | - | - | - | 5 | Suisse | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 1 | 1 | - | - | 3 | Tanzanie (République-Unie) | |
| 192 | 4 | - | - | 49 | 7 | 1 | - | - | - | - | - | - | 19 | 56 | 111 | 259 | - | 13 | 852 | Thaïlande | |
| 82 | 2 | - | - | 24 | - | 1 | 2 | - | - | - | - | - | 9 | 41 | 40 | 110 | - | 6 | 388 | Tunisie | |
| 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | - | 2 | - | - | 4 | Ouganda | |
| 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | - | 2 | - | - | 4 | Royaume-Uni | 1 |
| 200 | - | 19 | - | 92 | 19 | 5 | - | - | - | - | - | 12 | 76 | 229 | 1024 | 2024 | 1 | 10 | 5458 | Etats-Unis d'Amérique | |
| 131 | 2 | 8 | 2 | 51 | 4 | 10 | 14 | 25 | 7 | 1 | - | 5 | 77 | 106 | 130 | 396 | 6 | 4 | 2027 | Uruguay | |
| 133 | 5 | 2 | - | 39 | 2 | 3 | 3 | 16 | 3 | - | - | 1 | 54 | 100 | 53 | 215 | 2 | 5 | 1288 | Venezuela | |
| 1 | - | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | 8 | - | 2 | 496 | | |
| 2 | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | 1 | - | - | 278 | | |
| 495 | 16 | 27 | - | 288 | 5 | 21 | 6 | 4 | - | 16 | 5 | - | 151 | 503 | 682 | 2654 | 6 | 33 | 8352 | | |
| 434 | 13 | 20 | 6 | 308 | 4 | 21 | 3 | 2 | 2 | 10 | 2 | - | 117 | 420 | 561 | 2198 | 8 | 30 | 7515 | | |
| 2 | - | - | - | 4 | - | - | - | - | - | - | - | 1 | 11 | - | 25 | 20 | - | - | 85 | | |
| 3 | - | - | - | 2 | - | 1 | - | - | - | - | - | 1 | 6 | - | 13 | 22 | - | 3 | 71 | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 20 | - | - | 67 | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| 223 | 11 | 3 | 1 | 51 | 3 | 61 | - | 2 | - | 8 | 99 | 14 | - | 178 | 146 | 823 | 3 | 12 | 2958 | | |
| 361 | 29 | 15 | 1 | 350 | 5 | 42 | 3 | 11 | - | 10 | 95 | 7 | - | 459 | 515 | 1733 | 1 | 15 | 7287 | | |
| 293 | 65 | 4 | 2 | 40 | 2 | 7 | 4 | 4 | 1 | 3 | 37 | 28 | 38 | - | 99 | 525 | 9 | 21 | 3038 | | |
| 741 | 61 | 18 | - | 384 | 6 | 22 | 8 | 12 | 3 | 14 | 66 | 26 | 222 | - | 561 | 1909 | 8 | 17 | 9675 | | |
| 2 | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 13 | 11 | 16 | - | - | 57 | | |
| 2 | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 13 | 11 | 16 | - | - | 57 | | |
| 118 | 1 | - | - | 34 | - | 3 | - | - | - | 2 | - | 2 | 12 | 18 | 34 | 219 | - | 10 | 515 | | |
| 1 | 1 | - | - | 1 | - | 3 | - | - | - | - | - | - | - | 1 | - | 9 | - | - | 13 | | |
| - | - | - | - | 4 | - | - | - | - | - | - | - | 6 | 2 | 13 | 9 | 28 | - | 2 | 197 | | |
| 3 | - | - | - | - | - | - | - | - | - | - | - | 1 | 6 | 20 | 5 | 20 | - | 2 | 189 | | |
| 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 5 | 2 | - | - | 16 | | |
| 3300 | 54 | 20 | 8 | 433 | 31 | 45 | 16 | 4 | - | 87 | 105 | 87 | 271 | 703 | - | 4626 | 6 | 528 | 14798 | | |
| 5022 | 74 | 32 | 18 | 702 | 41 | 57 | 11 | 26 | 6 | 65 | 289 | 56 | 562 | 831 | - | 7179 | 10 | 158 | 22599 | | |
| 5000 | 17 | 49 | 73 | 1087 | 101 | 108 | 2 | 21 | 7 | 207 | 194 | 157 | 1181 | 1716 | 4138 | - | 20 | 815 | 44312 | | |
| 9191 | 12 | 27 | 32 | 626 | 38 | 66 | 1 | 20 | 2 | 61 | 222 | 50 | 623 | 1017 | 1931 | - | 9 | 157 | 23990 | | |
| 1 | 1 | 1 | - | 5 | - | - | - | - | - | - | - | 7 | 1 | 22 | 13 | 62 | - | 2 | 174 | | |
| 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 52 | | |
| 1 | 2 | 12 | 2 | 86 | 2 | 1 | 16 | - | - | 2 | 8 | 28 | 26 | 72 | 96 | 465 | - | 12 | 1426 | | |
| 11 | 5 | 12 | 51 | 3 | 6 | 6 | 1 | - | - | - | 4 | 93 | 16 | 68 | 89 | 786 | 4 | 21 | 1584 | | |



IP/STAT/1983/B

PATENTS

PATENTS
Chart 1b

Patent applications filed by and patents granted to
non-residents in 1983, broken down according to the country of origin

| Country of origin → Reporting country ↓ | AR | AU | AT | BS | BE | BR | BG | CA | CS | DK | FI | FR | DD | DE | GR | HU | IN | IE | IL | IT |
|--|----|----|----|----|----|----|----|----|----|----|----|-----|----|-----|----|----|----|----|----|----|
| Yugoslavia | — | 1 | 45 | — | 11 | — | 12 | 2 | 12 | 1 | 10 | 111 | 45 | 159 | — | 70 | — | 1 | 2 | 86 |
| | — | 2 | 15 | — | 7 | — | 2 | 4 | 3 | 4 | 3 | 71 | 9 | 249 | — | 48 | — | — | — | 94 |
| Zaire | — | 3 | — | — | 6 | — | — | 1 | — | — | 1 | 12 | — | 1 | — | — | — | — | — | 1 |
| | — | 3 | — | — | 6 | — | — | 1 | — | — | 1 | 11 | — | 1 | — | — | — | — | — | 1 |
| Zambia | — | 3 | — | — | 3 | — | — | 5 | — | — | 3 | 5 | — | 4 | — | — | — | — | — | 6 |
| | — | 2 | — | — | 3 | — | — | 2 | — | — | 1 | — | — | 2 | — | — | — | — | — | 5 |
| Zimbabwe | — | 14 | — | — | 2 | — | — | 8 | — | 1 | 2 | 4 | — | 10 | — | — | — | — | — | 5 |
| | — | 9 | — | — | 1 | — | — | 7 | — | 1 | 2 | 5 | — | 19 | — | — | — | — | — | 6 |



IP/STAT/1983/B

BREVETS

Demandes de brevets déposées par des non-résidents et brevets
délivrés à des non-résidents, en 1983 répartis selon leur pays d'origine

BREVETS
Tableau Ib

| IT | LU | MX | NL | NZ | NO | PA | PL | RO | ZA | SU | ES | SE | CH | GB | US | YU | Others/Autres | TOTAL | ← Pays d'origine |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|----|---------------|-------|----------------------|
| | | | | | | | | | | | | | | | | | | | ↓ Pays de délivrance |
| 2 | 1 | — | 17 | 1 | 3 | 13 | 11 | — | — | 24 | 5 | 37 | 55 | 67 | 260 | — | 3 | 1087 | Yougoslavie |
| 11 | 1 | — | 11 | — | 7 | 1 | 1 | — | 3 | 15 | 4 | 14 | 52 | 16 | 141 | — | 1 | 807 | |
| 1 | — | — | 1 | 1 | — | — | — | — | — | — | — | — | 5 | 15 | 17 | — | — | 66 | Zaire |
| 1 | — | — | 1 | 1 | — | — | — | — | — | — | — | — | 5 | 15 | 16 | — | — | 64 | |
| — | — | — | — | — | 2 | — | — | — | 11 | — | — | 3 | 1 | 22 | 21 | — | 2 | 91 | Zambie |
| 1 | — | — | — | — | 1 | — | — | — | 14 | — | — | 1 | 2 | 6 | 20 | — | 3 | 64 | |
| — | — | — | — | — | 2 | 1 | — | — | 38 | — | — | 1 | 20 | 73 | 55 | — | — | 237 | Zimbabwe |
| — | — | — | — | — | 2 | 2 | — | — | 46 | — | — | 1 | 15 | 66 | 60 | — | 3 | 246 | |

SOURCE:

Industrial Property Statistics
1983 in the form of Summary
Tables. W.I.P.O, Geneva, 1984
IP/STAT/1983/B PP. 6-9, 18-19,
10-17.



IP/STAT/1982/B

PATENTS/BREVETS

PATENTS
Chart IaPatent applications filed and patents granted during 1982
Demandes et délivrances de brevets au cours de 1982BREVETS
Tableau

| COUNTRIES PAYS | Applications for patents filed by Demandes de brevets déposées par des | | | Grants of patents to Brevets délivrés à des | | | Country of origin Code des pays d'origine |
|---|---|--------------------------------|--------------|--|--------------------------------|--------------|--|
| | Residents Résidents | Non-residents Non-résidents | Total | Residents Résidents | Non-residents Non-résidents | Total | |
| | | | | | | | |
| Algeria/Algérie * | 7 7 | 320 — | 327 7 | — — | — — | — — | DZ |
| Argentina/Argentine | 951 | 2793 | 3744 | 740 | 2552 | 3292 | AR |
| Australia/Australie | 6603 | 9572 | 16175 | 550 | 5248 | 5798 | AU |
| Austria/Autriche | 2233 | 2620 | 4853 | 1158 | 2903 | 4061 | AT |
| Bahamas | 3 | 50 | 53 | 2 | 43 | 45 | BS |
| Bahrain/Bahreïn | — | 41 | 41 | — | 21 | 21 | BH |
| Bangladesh | 40 | 104 | 144 | 13 | 105 | 118 | BD |
| Belgium/Belgique | 914 | 2944 | 3858 | 896 | 2930 | 3826 | BE |
| Bolivia/Bolivie | 18 | 89 | 107 | 3 | 113 | 116 | BO |
| Botswana | — | 29 | 29 | — | 29 | 29 | BW |
| Brazil/Bresil | 2116 | 5562 | 7678 | 1308 | 8766 | 10074 | BR |
| Bulgaria/Bulgarie * | — 3628 | 340 377 | 340 4005 | — 1424 | 169 126 | 169 1550 | BG |
| Burundi | — | 2 | 2 | — | 2 | 2 | BI |
| Canada | 1936 | 23357 | 25293 | 1527 | 21620 | 23147 | CA |
| Chile/Chili | 96 | 665 | 761 | 37 | 639 | 676 | CL |
| Costa Rica | 38 | 61 | 99 | 7 | 26 | 33 | CR |
| Cuba | 183 | 39 | 222 | 94 | 56 | 150 | CU |
| Cyprus/Cypre | — | 38 | 38 | — | 44 | 44 | CY |
| Czechoslovakia/Tchécoslovaquie * | 59 8334 | 1208 549 | 1267 8883 | 1 6112 | 1349 287 | 1350 6399 | CS |
| Denmark/Danemark | 1095 | 4706 | 5801 | 224 | 1306 | 1530 | DK |
| Dominican Rep./République dominicaine | — | — | — | 22 | 94 | 116 | DO |
| Ecuador/Équateur | 22 | 122 | 144 | 15 | 55 | 70 | EC |
| Egypt/Égypte | 53 | 713 | 766 | 3 | 279 | 282 | EG |
| El Salvador | 22 | 61 | 83 | 6 | 59 | 65 | SV |
| Finland/Finlande | 1633 | 2907 | 4545 | 523 | 1534 | 2057 | FI |
| France | 10681 | 11561 | 22242 | 7764 | 16180 | 23944 | FR |
| Gambia/Gambie | — | 5 | 5 | — | — | — | GM |
| German Dem. Rep./Rég. dém. allemande | 8584 | 1554 | 10138 | 4125 | 1179 | 5304 | DD |
| Germany (Fed. Rep.)/Allemagne (Rép. féd.) | 30668 | 17158 | 47826 | 8279 | 8027 | 16306 | DE |
| Ghana | — | 18 | 18 | — | 18 | 18 | GH |
| Greece/Grèce | 1291 | 1969 | 3260 | 1182 | 1054 | 2236 | GR |
| Guatemala | 17 | 168 | 185 | 6 | 61 | 67 | GT |
| Guyana/Guyane | 1 | 12 | 13 | 1 | 12 | 13 | GY |
| Haiti/Haïti | 2 | 24 | 26 | 2 | 24 | 26 | HT |
| Honduras | 17 | 36 | 53 | 16 | 50 | 66 | HN |
| Hong Kong/Hong-Kong | 15 | 696 | 711 | 9 | 549 | 558 | HK |
| Hungary/Hongrie | 2344 | 1559 | 3903 | 1090 | 1039 | 2129 | HU |
| Iceland/Islande | 18 | 62 | 80 | 1 | 24 | 25 | IS |
| Iran | 202 | 273 | 475 | 23 | 215 | 238 | IR |
| Iraq/Irak | 47 | 129 | 176 | 17 | 96 | 113 | IQ |
| Ireland/Irlande | 434 | 2676 | 3110 | 19 | 1064 | 1083 | IE |
| Israel/Israël | 707 | 2207 | 2914 | 283 | 1509 | 1792 | IL |
| Japan/Japon | 210897 | 24427 | 235324 | 42223 | 8378 | 50601 | JP |
| Kenya | — | 76 | 76 | — | 76 | 76 | KE |
| Lucembourg | 92 | 618 | 710 | 77 | 497 | 574 | LU |
| Malawi | 3 | 43 | 46 | — | 53 | 53 | MW |
| Maldives | — | 2 | 2 | — | — | — | ML |
| Mali/Mali | 3 | 15 | 18 | 2 | 4 | 6 | MT |
| Mauritius/Maurice | — | 8 | 8 | — | 3 | 3 | MU |
| Mexico/Mexique * | 526 24 | 4280 483 | 4806 507 | 197 17 | 2386 768 | 2583 785 | MX * |



IP/STAT/1982/B

PATENTS/BREVETS

NIS
laPatent applications filed and patents granted during 1982
Demandes et délivrances de brevets au cours de 1982BREVETS
Tableau Ia

| COUNTRIES PAYS | Applications for patents filed by Demandes de brevets déposées par des | | | Grants of patents to Brevets délivrés à des | | | Country code Code des pays |
|--|---|--------------------------------|--------|--|--------------------------------|-------|-------------------------------|
| | Residents Résidents | Non-residents Non-résidents | Total | Residents Résidents | Non-residents Non-résidents | Total | |
| | | | | | | | |
| Madagascar | 9 | 37 | 46 | 13 | 56 | 69 | MC |
| Mongolia/Mongolie * | — | 2 | 2 | — | 2 | 2 | MN * |
| Morocco/Maroc | 56 | 29 | 85 | 16 | 9 | 25 | MA |
| Nepal/Népal | 47 | 284 | 331 | 44 | 292 | 336 | NP |
| Netherlands/Pays-Bas | — | 3 | 3 | — | 1 | 1 | NL |
| New Zealand/Nouvelle-Zélande | 1873 | 3212 | 5085 | 618 | 6035 | 6653 | NZ |
| Paraguay | 986 | 2547 | 3533 | 185 | 1192 | 1377 | NI |
| Norway/Norvège | 3 | 72 | 75 | — | 60 | 60 | NO |
| Philippines | 693 | 3733 | 4426 | 208 | 1641 | 1849 | OA |
| Poland | 9 | 290 | 299 | 2 | 171 | 173 | PA |
| Peru | 9 | 87 | 96 | 9 | 87 | 96 | PY |
| Portugal | 5 | 40 | 45 | 3 | 61 | 64 | PE |
| Romania/Roumanie | 56 | 294 | 350 | 20 | 332 | 352 | PH |
| Saudi Arabia | 134 | 1514 | 1648 | 35 | 525 | 560 | PL |
| Spain/Espagne | 4482 | 990 | 5472 | 3607 | 856 | 4463 | PT |
| Sweden/Suède | 92 | 1734 | 1826 | 9 | 1204 | 1213 | KR |
| South Korea/Répub. de Corée | 1556 | 4368 | 5924 | 274 | 2335 | 2609 | RO |
| Switzerland/Suisse | 2724 | 638 | 3362 | 1581 | 920 | 2501 | RW |
| Tanzania | — | 2 | 2 | — | 2 | 2 | SL |
| Sierra Leone | — | — | — | — | 18 | 18 | SG |
| Singapore/Singapour | 4 | 644 | 648 | 3 | 516 | 519 | ZA |
| South Africa/Afrique du Sud | 3017 | 6585 | 9602 | — | — | 6781 | SU * |
| Soviet Union/Union soviétique * | — | 2418 | 2418 | — | 1414 | 1414 | ES |
| Spain/Espagne | 156972 | 568 | 157540 | 89304 | 378 | 89682 | LK |
| Sweden/Suède | 1646 | 8555 | 10201 | 1714 | 7996 | 9710 | SE |
| Switzerland/Suisse | 12 | 76 | 88 | 23 | 241 | 264 | CH |
| Syria/Syrie | 4087 | 3442 | 7529 | 1634 | 6230 | 7864 | SY |
| Thailand/Thaïlande | 3845 | 3637 | 7482 | 1915 | 7712 | 9627 | TH |
| Turkey/Turquie | 3 | 82 | 85 | 3 | 82 | 85 | TR |
| Uganda/Ouganda | 40 | 332 | 372 | 1 | 3 | 4 | UG |
| United Kingdom/Royaume-Uni | 126 | 385 | 511 | 42 | 304 | 346 | GB |
| United States of America/États-Unis d'Amérique | — | 17 | 17 | — | 17 | 17 | US |
| Uruguay | 20530 | 16563 | 37093 | 4686 | 24904 | 29590 | UY |
| Venezuela | 63316 | 46309 | 109625 | 33896 | 23993 | 57889 | VE |
| Yugoslavia/Yougoslavie | 49 | 157 | 206 | 23 | 90 | 113 | YU |
| Zaire | 196 | 1028 | 1224 | 214 | 1569 | 1783 | ZR |
| Zambia | 1428 | 1556 | 2984 | 55 | 215 | 270 | ZM |
| Zimbabwe | 6 | 93 | 99 | 6 | 93 | 99 | ZW |
| Zambia | 1 | 91 | 92 | 2 | 120 | 122 | |
| Zimbabwe | 41 | 230 | 271 | 19 | 255 | 274 | |



IP/STAT/1982/B...

PATENTS/BREVETS

PATENTS
Chart IIPatents in force on December 31, 1982 broken down according to the year of grant
Brevets en vigueur au 31 décembre 1982 répartis selon l'année de délivranceBRI
Tab

| CODES | 1982 | 1981 | 1980 | 1979 | 1978 | 1977 | 1976 | 1975 | 1974 | 1973 | 1972 | BEFORE AVANT 1972 | TO |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------------------|-----|
| AF | 3292 | 3513 | 4562 | 3358 | 1744 | 3009 | 4092 | 3376 | 4481 | 4226 | 4677 | 25688 | 6 |
| AU | 1 | 102 | 591 | 2333 | 5482 | 6096 | 5821 | 4644 | 4652 | 4178 | 3621 | 11321 | 4 |
| AI | 3914 | 4340 | 4836 | 4637 | 3935 | 3660 | 3172 | 2984 | 2771 | 2161 | 2143 | 7100 | 4 |
| BE | 3826 | 4129 | 4860 | 5877 | 7283 | 7797 | 6931 | 6032 | 5621 | 5224 | 4455 | 19269 | 8 |
| BW | 29 | 34 | 19 | 35 | 23 | 16 | 13 | 12 | 9 | 21 | 19 | — | — |
| BG | 1550 | 1560 | 1373 | 1453 | 1377 | 1726 | 832 | 875 | 1018 | 836 | 750 | 4533 | 1 |
| BI | 2 | 5 | 10 | 1 | 4 | 6 | 7 | 6 | 4 | 2 | 4 | 58 | — |
| CA | 23147 | 22696 | 23895 | 23546 | 21796 | 20793 | 21741 | 20544 | 21287 | 21246 | 28295 | 164653 | 41 |
| CL | 676 | 632 | 816 | 439 | 588 | 528 | 567 | 703 | 565 | 572 | 856 | 3623 | 1 |
| CU | 150 | 64 | 156 | — | 22 | 29 | 38 | 6 | 33 | 20 | 21 | 484 | — |
| CY | 44 | 27 | 66 | 52 | 42 | 59 | 52 | 59 | 59 | 46 | 44 | 48 | — |
| EC | 70 | 34 | 77 | 110 | 120 | 212 | 47 | 23 | 40 | 106 | 159 | 486 | — |
| FI | 2026 | 1762 | 1489 | 1127 | 967 | 559 | 450 | 403 | 344 | 221 | 182 | 116 | — |
| FR | 21688 | 21904 | 22527 | 23899 | 25573 | 24749 | 20620 | 18138 | 16632 | 15904 | 13746 | 60468 | 28 |
| DD | — | — | — | — | — | — | — | — | — | — | — | — | 6 |
| DE | 13751 | 12981 | 19535 | 19498 | 19201 | 14750 | 10914 | 7876 | 6995 | 6082 | 3202 | 1938 | 13 |
| GH | 18 | 19 | 17 | 37 | 39 | 75 | 45 | 52 | 50 | 48 | 61 | 461 | — |
| GY | 7 | 25 | 35 | 26 | 21 | 20 | 34 | 33 | 45 | 15 | 26 | 151 | — |
| HN | 66 | 82 | 74 | 80 | 68 | 126 | 170 | — | 13 | 58 | 81 | 1640 | — |
| HU | — | — | — | — | — | — | — | — | — | — | — | — | 1 |
| IS | 25 | 29 | 27 | 23 | 14 | 14 | 16 | 8 | 18 | 9 | 44 | 24 | — |
| IQ | 113 | 57 | 33 | 53 | 3 | 93 | 108 | 107 | 76 | 50 | 68 | — | — |
| IE | 1076 | 1191 | 1070 | 799 | 690 | 676 | 512 | 439 | 486 | 342 | 290 | 492 | — |
| IL | — | — | — | — | — | — | — | — | — | — | — | — | 1 |
| JF | 5060 | 50904 | 46106 | 38370 | 35702 | 36823 | 25334 | 27079 | 21307 | 21396 | 18512 | 31159 | 40 |
| KE | 76 | 75 | 97 | 98 | 106 | 124 | 98 | 95 | 126 | 117 | 131 | 464 | — |
| LU | 701 | 745 | 822 | 990 | 1316 | 1376 | 1184 | 1012 | 779 | 623 | 558 | 2286 | 1 |
| MW | 53 | 32 | 22 | 24 | 24 | 26 | 25 | 26 | 25 | 15 | 17 | 29 | — |
| MI | 6 | 20 | 10 | 12 | 4 | 11 | 5 | 5 | 6 | 2 | 4 | 11 | — |
| MU | 3 | 8 | 13 | 19 | 15 | 14 | 10 | 17 | 24 | 27 | 20 | 19 | — |
| MX * | 2583 | 2210 | 2002 | 2027 | 1653 | 2044 | 2441 | 3638 | 3503 | 3386 | 2806 | 8364 | 3 |
| | 785 | 615 | 556 | 666 | 847 | 1230 | 190 | — | — | — | — | — | — |
| MC | 58 | 36 | 43 | 32 | 23 | 22 | 16 | 13 | 16 | 14 | 7 | 62 | — |
| MN * | 2 | — | — | — | — | — | — | — | — | — | — | — | — |
| | 25 | 35 | 22 | 17 | 22 | 16 | 17 | 16 | 10 | 5 | 10 | 62 | — |
| MA | 336 | 312 | 351 | 372 | 381 | 401 | 321 | 286 | 229 | 221 | 210 | 752 | — |
| NL | 6674 | 4989 | 2952 | 2450 | 2053 | 1966 | 1588 | 1473 | 1070 | 864 | 611 | 1343 | 2 |
| NO | 1785 | 1641 | 1627 | 1306 | 1143 | 1109 | 873 | 795 | 745 | 624 | 493 | 782 | 1 |
| OA | 173 | 425 | 569 | 573 | 357 | 260 | 10 | 126 | 294 | 288 | 361 | 3758 | — |
| PA | 87 | 24 | 43 | 153 | 34 | 12 | 79 | 160 | 47 | 191 | 286 | — | — |
| PE | 352 | 345 | 331 | 465 | 1036 | 235 | 170 | 57 | 468 | 644 | 573 | 871 | — |
| PH | 555 | 786 | 898 | 849 | 672 | 1041 | 864 | 749 | 796 | 729 | 778 | 2977 | 1 |
| PL | 3935 | 5255 | 6029 | 3227 | 1851 | 1941 | 1603 | 1507 | 581 | 98 | 274 | 161 | 2 |
| PT | 1213 | 650 | — | — | — | — | — | — | — | — | — | — | — |
| KR | 2509 | 1776 | 1610 | 1264 | 251 | 137 | 243 | 193 | 107 | 67 | 59 | 30 | — |
| RW | 2 | 7 | 2 | 5 | 2 | 6 | 6 | 9 | 2 | 2 | 2 | 41 | — |
| SC | — | 7 | 3 | 5 | 1 | 4 | 2 | 3 | 3 | 1 | 3 | 12 | — |
| SG | 519 | 741 | 549 | 733 | 548 | 466 | 684 | 498 | 576 | 432 | 360 | 2597 | — |
| SU | 1407 | 1558 | 1326 | 1773 | 1546 | 1156 | 673 | 692 | 498 | 529 | 401 | 479 | 1 |
| LK | 264 | 77 | 412 | — | — | — | — | — | — | — | — | — | — |
| SE | 1 | 123 | 1538 | 3456 | 2892 | 3210 | 4238 | 4967 | 5111 | 4895 | 4118 | 14254 | 4 |
| CH | 9436 | 7645 | 5165 | 4828 | 498 | 13215 | 5789 | 5466 | 4422 | 4050 | 3586 | 13301 | 7 |
| SY | 85 | 64 | 38 | 90 | 69 | 55 | 66 | 40 | 33 | 28 | 22 | 62 | — |
| TH | 4 | — | — | — | — | — | — | — | — | — | — | — | — |
| TR | 346 | 280 | 484 | 458 | 396 | 556 | 623 | 462 | 246 | 311 | 449 | 2232 | — |
| UG | 17 | 55 | 38 | 18 | 31 | 33 | 54 | 56 | 56 | 41 | 55 | 1027 | — |
| GB | — | — | — | — | — | — | — | — | — | — | — | — | 22 |
| US | 57899 | 55770 | 61827 | 48355 | 66140 | 65269 | 70236 | 71994 | 76275 | 74139 | 74813 | 466321 | 119 |
| ZR | 99 | 81 | 104 | 97 | 116 | 121 | 186 | 147 | 127 | 144 | 144 | 1182 | — |
| ZW | 274 | 279 | 192 | 137 | 146 | 116 | 162 | 127 | 125 | 91 | 77 | 390 | — |



IP/STAT/1982/B

PATENTS

PATENTS Patent applications filed by and patents granted to non-residents in 1982, broken down according to the country of origin Chart 1b

| Country of origin → Reporting country ↓ | AR | AU | AT | BS | BE | BR | BG | CA | CS | DK | FI | FR | DD | DE | GR | HU | IN | IE | IL |
|--|----|-----|-----|----|-----|----|----|-----|-----|-----|-----|------|-----|------|----|-----|----|----|----|
| Algeria | — | 3 | 2 | — | 7 | 1 | 2 | 2 | — | — | 1 | 1 | 115 | 1 | 33 | — | 6 | — | — |
| Argentina | — | 16 | 16 | 2 | 15 | 28 | 1 | 19 | — | 19 | 12 | 215 | 1 | 372 | 1 | 40 | — | 2 | 4 |
| Australia | 2 | — | 32 | 6 | 46 | 9 | 1 | 156 | 4 | 42 | 50 | 370 | — | 951 | 2 | 53 | 1 | 12 | 37 |
| Austria | — | 3 | — | — | 25 | 1 | 2 | 8 | 21 | 20 | 40 | 91 | 88 | 955 | — | 141 | — | 2 | 6 |
| Bahamas | — | — | — | — | — | 1 | — | — | — | — | — | 1 | — | 2 | — | — | — | — | — |
| Bahrain | — | — | — | 2 | — | — | — | — | — | — | — | 4 | — | — | — | — | — | — | — |
| Bangladesh | — | 1 | 1 | — | — | — | — | 2 | — | — | — | 9 | — | 5 | — | — | — | — | — |
| Belgium | — | 14 | 10 | 1 | — | 6 | 2 | 16 | 11 | 41 | 20 | 322 | 21 | 577 | — | 71 | 1 | 8 | 7 |
| Bolivia | 1 | — | — | — | 1 | 1 | — | 4 | — | — | — | 4 | — | 7 | — | — | — | — | — |
| Brazil | 15 | 33 | 35 | 2 | 26 | — | — | 64 | 8 | 16 | 41 | 425 | 1 | 1116 | 2 | 21 | — | 2 | 13 |
| Bulgaria | — | 1 | 4 | — | 3 | — | — | 1 | — | — | 3 | 18 | — | 45 | — | 77 | — | — | — |
| Burundi | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Canada | 4 | 245 | 150 | 5 | 169 | 13 | 8 | — | 13 | 96 | 175 | 1332 | 2 | 2209 | 8 | 81 | 12 | 29 | 39 |
| Chile | 7 | 12 | 7 | — | 9 | 7 | — | 10 | — | 3 | 4 | 23 | — | 131 | — | 2 | — | — | 4 |
| Costa Rica | — | — | — | — | 1 | — | — | — | — | — | — | — | — | 10 | — | — | — | — | — |
| Cuba | 1 | 1 | — | 3 | 1 | — | — | 2 | — | 1 | — | 5 | 3 | 3 | — | 2 | — | — | — |
| Cyprus | — | — | — | — | — | — | — | — | — | — | — | 1 | — | 2 | — | — | — | — | — |
| Czechoslovakia | — | 6 | 30 | — | 8 | — | 20 | 15 | — | 5 | 10 | 72 | 6 | 311 | — | 155 | — | — | — |
| Denmark | 1 | 24 | 30 | 8 | 36 | 2 | 2 | 27 | 4 | — | 78 | 329 | 25 | 1053 | — | 80 | — | 9 | 4 |
| Dominican Republic | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Ecuador | — | — | — | — | 1 | 1 | — | 1 | — | 1 | — | 3 | — | 5 | — | — | — | — | — |
| Egypt | — | 11 | 4 | — | 13 | — | — | 6 | — | 4 | 3 | 100 | — | 118 | — | 5 | — | — | 5 |
| El Salvador | — | — | — | — | 1 | — | — | — | — | — | — | — | — | 15 | — | — | — | — | — |
| Finland | — | 14 | 32 | 2 | 20 | 3 | 6 | 38 | 7 | 64 | — | 196 | 11 | 572 | — | 70 | — | 5 | 2 |
| France | 8 | 56 | 90 | 1 | 128 | 15 | 23 | 78 | 52 | 81 | 97 | — | 149 | 2750 | 3 | 155 | — | 6 | 40 |
| German Democratic Republic | 1 | 4 | 36 | — | 11 | 3 | 31 | 4 | 92 | 10 | 22 | 64 | — | 360 | — | 161 | — | — | 4 |
| Germany (Federal Republic of) | 7 | 82 | 482 | — | 82 | 18 | 34 | 96 | 149 | 197 | 219 | 761 | 583 | — | 9 | 224 | 3 | 6 | 50 |
| Ghana | — | — | 1 | — | — | — | — | — | — | — | — | — | — | 3 | — | — | — | — | — |



IP/STAT/1982/B

BREVETS

Demandes de brevets déposées par des non-résidents et brevets
délivrés à des non-résidents, en 1982 répartis selon leur pays d'origineBREVETS
Tableau II

| IP | LI | LU | MX | NL | NZ | NO | PA | PL | RO | ZA | SU | ES | SE | CH | GB | US | YU | Others/Autres *** | TOTAL | Pays d'origine | |
|-----|----|----|-----|-----|-----|----|----|----|----|-----|-----|-----|------|-----|------|-------|----|----------------------|-------|------------------------------|---|
| | | | | | | | | | | | | | | | | | | | | Pays de délivrance | |
| 2 | | | 1 | 13 | — | — | — | 1 | — | 2 | 1 | 1 | 6 | 19 | 8 | 70 | — | — | 320 | Algerie | |
| 116 | 2 | 10 | 6 | 89 | 6 | 4 | 30 | — | 3 | 4 | 1 | 53 | 25 | 174 | 194 | 1147 | — | 26 | 2793 | Argentine | |
| 195 | 7 | 8 | 4 | 106 | 4 | 1 | 5 | 1 | 1 | 10 | 7 | 41 | 24 | 170 | 142 | 1032 | — | 32 | 2552 | Australie | |
| 194 | 20 | 17 | 6 | 282 | 154 | 22 | 11 | — | — | 134 | 57 | 13 | 145 | 334 | 1065 | 3865 | 1 | 49 | 9482 | Autriche | |
| 194 | 7 | 3 | 1 | 184 | 48 | 18 | 12 | 3 | — | 51 | 62 | 8 | 97 | 203 | 445 | 2444 | 1 | 21 | 5248 | Bahamas | |
| 194 | 41 | 9 | 2 | 64 | 1 | 8 | — | 1 | — | 5 | 50 | 6 | 66 | 219 | 63 | 361 | 17 | 3 | 2620 | Bahrein | |
| 122 | 47 | 7 | 1 | 111 | — | 7 | 11 | 6 | — | 2 | 41 | 7 | 66 | 306 | 111 | 376 | 9 | 2 | 2903 | Bangladesh | |
| 1 | | | | | | | | | | | | | | 1 | 5 | 37 | — | — | 50 | | |
| 1 | | | | | | | | | | | | 1 | | 1 | 6 | 28 | — | 2 | 43 | | |
| 1 | | | | 2 | | 1 | | | | | | | 1 | | 8 | 17 | — | 4 | 41 | | |
| 1 | | | | 1 | | 1 | | | | | | | | 1 | 5 | 3 | — | 1 | 21 | | |
| 1 | | | | 7 | | 1 | 5 | | | | | | | 2 | 19 | 34 | — | 1 | 104 | | |
| 1 | | | | 5 | | | | | | | | | | 9 | 20 | 25 | — | 8 | 105 | | |
| 194 | 20 | 12 | 2 | 138 | 1 | 10 | — | — | — | 4 | 11 | 28 | 19 | 126 | 122 | 895 | 9 | 9 | 2944 | Belgique | |
| 194 | 20 | 12 | 2 | 137 | 1 | 10 | — | — | — | 4 | 11 | 28 | 19 | 124 | 122 | 889 | 9 | 8 | 2930 | Bolivia | |
| 2 | | | 1 | 3 | — | — | 2 | — | — | — | 1 | — | — | 13 | 7 | 30 | — | 6 | 89 | | |
| 1 | | | 2 | — | — | 1 | — | — | — | 1 | 2 | 4 | — | 10 | 4 | 44 | — | 3 | 113 | Brésil | |
| 194 | 10 | 15 | 7 | 182 | 10 | 16 | — | — | 1 | 14 | 17 | 25 | 73 | 247 | 278 | 2186 | 5 | 40 | 5562 | Bulgarie | * |
| 24 | 18 | 21 | 9 | 259 | 2 | 31 | 4 | 3 | 3 | 20 | 21 | 44 | 170 | 384 | 334 | 3618 | — | 32 | 8766 | | |
| 13 | | 4 | — | 10 | — | 2 | — | 4 | 5 | — | — | 1 | 5 | 16 | 9 | 107 | — | — | 340 | | |
| 8 | | 1 | — | 3 | — | — | — | 2 | — | — | — | 1 | 1 | 5 | 13 | 62 | 1 | — | 169 | | |
| | | | | | | | | | | | 158 | — | — | — | — | — | — | 2 | 377 | | |
| | | | | | | | | | | | 51 | — | — | — | — | — | — | — | 126 | | |
| | | | | | | | | | | | | | | | 1 | 1 | — | — | 2 | | |
| | | | | | | | | | | | | | | | 1 | 1 | — | — | 2 | | |
| 46 | 7 | 29 | 21 | 474 | 37 | 82 | — | 7 | 2 | 73 | 90 | 33 | 445 | 623 | 1375 | 12427 | 7 | 130 | 23357 | Burundi | |
| 104 | 9 | 16 | 10 | 491 | 22 | 52 | — | 7 | 2 | 57 | 147 | 23 | 418 | 509 | 1111 | 12595 | 3 | 50 | 21620 | Canada | |
| 11 | | | 1 | 30 | 3 | 1 | 6 | — | — | 7 | — | 19 | 18 | 53 | 44 | 234 | — | 2 | 665 | | |
| 6 | 1 | — | 5 | 20 | 1 | 4 | 7 | — | — | 10 | — | 26 | 17 | 55 | 25 | 218 | — | 22 | 639 | Chili | |
| 2 | | | | 1 | — | — | — | — | — | — | — | 2 | — | 1 | 2 | 37 | — | 4 | 61 | | |
| 1 | | | | | — | — | — | — | — | — | — | 2 | — | — | 2 | 18 | — | — | 26 | | |
| 5 | 1 | — | | 2 | — | — | — | 1 | — | — | — | 1 | 4 | — | 4 | 2 | — | — | 39 | Cuba | |
| 1 | | | | 1 | — | — | — | — | — | — | 3 | 3 | 1 | 6 | 5 | 5 | — | — | 56 | | |
| 2 | | | | 1 | — | — | — | — | — | — | — | — | 1 | 6 | 13 | 8 | — | — | 38 | | |
| 68 | | | | 1 | — | — | — | — | — | — | — | — | 1 | 7 | 16 | 8 | — | — | 44 | | |
| 72 | | 4 | 1 | 12 | — | 1 | — | 12 | 3 | — | 2 | 1 | 22 | 65 | 66 | 234 | 9 | 5 | 1208 | | |
| 72 | | 4 | — | 28 | — | 6 | — | 23 | 2 | — | 1 | 4 | 25 | 121 | 83 | 233 | 6 | 2 | 1349 | Tchécoslovaquie | * |
| | | | | | | | | | 1 | — | 218 | — | — | — | — | — | — | 1 | 549 | | |
| 22 | 10 | 7 | — | 215 | 5 | 62 | 11 | 3 | — | 2 | 16 | 9 | 323 | 294 | 424 | 1227 | 3 | 24 | 4706 | | |
| 6 | 10 | 2 | 1 | 64 | 1 | 21 | 1 | 1 | — | 1 | 11 | 2 | 121 | 101 | 84 | 298 | — | 4 | 1306 | Danemark | |
| 3 | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | 3 | — | — | — | — | — | — | — | 3 | 1 | 22 | 7 | 38 | — | 4 | 94 | République dominicaine | |
| | | | 4 | 6 | 1 | — | 8 | — | — | — | — | 5 | 5 | 1 | 7 | 51 | 3 | 4 | 122 | | |
| | | | 3 | 1 | 1 | — | 2 | — | — | — | — | 3 | — | 1 | 1 | 28 | — | 2 | 55 | Equateur | |
| 27 | 1 | — | 2 | 19 | — | 1 | 2 | 3 | — | 2 | — | 11 | 8 | 26 | 50 | 256 | — | 2 | 713 | Egypte | |
| 21 | 1 | 2 | — | 8 | 1 | 3 | — | — | — | — | — | 1 | 2 | 13 | 29 | 83 | — | — | 279 | | |
| 2 | | | | 3 | — | — | 1 | — | — | — | — | — | — | 8 | 1 | 28 | — | 2 | 61 | | |
| 2 | | | 1 | 1 | — | — | — | — | — | — | — | — | — | 4 | 5 | 26 | — | — | 59 | El Salvador | |
| 11 | 6 | 1 | 81 | 2 | 51 | 7 | 3 | — | — | 9 | 38 | 4 | 404 | 202 | 229 | 646 | 6 | 6 | 2907 | | |
| 14 | 16 | 4 | 2 | 55 | — | 38 | 5 | 2 | — | 6 | 39 | 1 | 315 | 96 | 78 | 295 | — | 7 | 1534 | Finlande | |
| 18 | 45 | 31 | 8 | 270 | 9 | 35 | 7 | 13 | 1 | 22 | 257 | 148 | 199 | 525 | 571 | 2985 | 19 | 64 | 11561 | | |
| 1 | 72 | 55 | 5 | 783 | 8 | 52 | 10 | 20 | 5 | 19 | 256 | 90 | 446 | 958 | 1068 | 4504 | 13 | 42 | 16180 | France | |
| 4 | | 2 | 3 | 30 | — | 1 | 4 | 13 | 5 | — | 219 | 2 | 27 | 96 | 41 | 205 | 9 | 3 | 1554 | | |
| 1 | 1 | 3 | 4 | 36 | 1 | 3 | — | 24 | 1 | — | 93 | 2 | 18 | 69 | 33 | 231 | 4 | 2 | 1179 | Rép. démocratique allemande | |
| 112 | 41 | 13 | 396 | 12 | 48 | 3 | 21 | 3 | 31 | 304 | 106 | 396 | 1231 | 789 | 4256 | 58 | 88 | 17158 | | | |
| 4 | 25 | 13 | 2 | 384 | 4 | 25 | 6 | 19 | 7 | 6 | 277 | 13 | 212 | 630 | 434 | 2531 | 8 | 14 | 8027 | Allemagne (Rép. fédérale d') | |
| 2 | | | | | | | | 1 | — | — | — | — | — | 2 | 3 | 4 | — | 2 | 18 | | |
| 2 | | | | | | | | 1 | — | — | — | — | — | 2 | 3 | 4 | — | 2 | 18 | Ghana | |



IP/STAT/1982/B

PATENTS

PATENTS
Chart IbPatent applications filed by and patents granted to:
non-residents in 1982, broken down according to the country of origin

| Country of origin → | AR | AU | AT | BS | BE | BR | BG | CA | CS | DK | FI | FR | DD | DE | GR | HU | IN | IE | IL |
|---------------------|----|-----|-----|----|-----|----|----|-----|----|-----|-----|------|-----|------|----|-----|----|----|----|
| Reporting country ↓ | | | | | | | | | | | | | | | | | | | |
| Greece | 1 | 12 | 14 | — | 36 | — | 1 | 16 | — | 14 | 7 | 206 | — | 384 | — | 44 | — | — | 2 |
| | — | 5 | 11 | 2 | 19 | — | 4 | 2 | 5 | 2 | 3 | 119 | 1 | 183 | — | 28 | 1 | — | 2 |
| Guyana | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | — | — | — | — | — |
| | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | — | — | — | — | — |
| Haiti | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Honduras | — | — | — | — | — | — | — | — | — | — | — | 5 | — | 2 | — | — | — | — | — |
| | — | — | — | 2 | — | — | — | — | — | — | — | 3 | 1 | 1 | — | — | — | — | — |
| Hong Kong | — | 16 | 1 | 3 | 11 | — | — | 1 | — | 1 | 1 | 18 | 1 | 53 | — | — | — | 1 | — |
| | — | 13 | 1 | 6 | 10 | — | — | 1 | — | 1 | 2 | 10 | — | 53 | — | — | — | 1 | — |
| Hungary | 1 | 6 | 27 | — | 11 | — | 18 | 14 | 47 | 2 | 17 | 109 | 200 | 349 | — | — | — | — | 1 |
| | — | 3 | 45 | — | 7 | 2 | 1 | 1 | 11 | 2 | 4 | 81 | 39 | 275 | — | — | — | — | — |
| Iceland | 2 | — | — | — | — | — | — | — | — | 2 | 2 | 4 | — | 6 | — | — | — | — | — |
| | 1 | — | — | — | — | — | — | — | — | — | 2 | — | — | 2 | — | — | — | — | — |
| Iran | — | 2 | 1 | — | — | — | — | 3 | — | — | 2 | 18 | — | 32 | 3 | 18 | — | — | — |
| | — | 1 | — | — | — | — | — | 2 | — | — | 2 | 24 | — | 24 | — | 15 | 2 | 1 | — |
| Iraq | — | 3 | 2 | — | 2 | — | — | 1 | — | 2 | 1 | 31 | 1 | 12 | 2 | 4 | — | — | — |
| | — | 1 | 1 | — | — | — | — | 1 | — | — | 1 | 28 | — | 10 | — | 1 | — | — | — |
| Ireland | 1 | 17 | 1 | — | 19 | 3 | — | 24 | — | 24 | 17 | 255 | 6 | 305 | — | 10 | 1 | — | 2 |
| | — | 5 | 2 | 2 | 7 | — | — | 5 | — | 8 | 3 | 129 | — | 171 | — | 1 | — | — | 2 |
| Israel | — | 19 | 6 | — | 21 | — | — | 11 | — | 8 | 8 | 151 | — | 398 | — | 31 | — | — | — |
| | — | 5 | 5 | — | 5 | — | — | 4 | — | 3 | — | 102 | — | 252 | — | 22 | — | 1 | — |
| Japan | 2 | 137 | 152 | 3 | 136 | 17 | 25 | 273 | 49 | 115 | 123 | 1759 | 101 | 5669 | 5 | 139 | 1 | 10 | 45 |
| | — | 39 | 50 | — | 40 | 4 | 3 | 92 | 26 | 42 | 24 | 465 | 11 | 1527 | 1 | 22 | 2 | — | 10 |
| Kenya | — | 1 | — | — | 1 | — | — | — | 1 | — | — | — | — | 10 | — | 1 | — | — | — |
| | — | 1 | — | — | 1 | — | — | — | 1 | — | — | — | — | 10 | — | 1 | — | — | — |
| Luxembourg | — | 1 | 2 | — | 132 | — | — | 1 | — | 9 | — | 99 | 3 | 92 | — | 17 | — | 8 | 1 |
| | — | — | 1 | — | 83 | — | — | 1 | 1 | 4 | — | 84 | 1 | 84 | — | 10 | — | 4 | — |
| Malawi | — | — | — | — | — | — | — | 1 | — | — | — | — | — | 1 | — | — | — | — | — |
| | — | — | — | — | — | — | — | 1 | — | — | — | 2 | — | 2 | — | — | — | — | — |
| Mali | — | — | — | — | — | — | — | — | — | — | — | 1 | — | — | — | — | — | — | — |
| | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Malta | — | — | — | — | 1 | — | — | — | — | — | — | 2 | — | 1 | — | — | — | — | — |
| | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | — | — | — |
| Mauntius | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | — | 1 | — | — | — | — | — | 1 | — | — | — | — | — | — | — | — | — | — | — |
| Mexico * | 2 | 32 | 20 | — | 16 | 19 | 4 | 68 | 3 | 17 | 22 | 259 | — | 342 | 3 | 19 | 1 | 1 | 16 |
| | 5 | 17 | 9 | 1 | 11 | 5 | 2 | 25 | — | 3 | 3 | 134 | — | 170 | 2 | 2 | — | — | 5 |
| | — | 1 | 1 | — | 1 | — | — | 6 | — | 2 | — | 52 | — | 40 | — | — | — | — | — |
| | — | 2 | — | — | 5 | 1 | — | — | — | 2 | — | 66 | — | 80 | 1 | 8 | — | — | — |
| Monaco | — | — | — | — | — | — | — | — | — | — | — | 15 | — | — | — | — | — | — | — |
| | — | — | — | — | — | — | — | 1 | — | — | — | 12 | — | — | — | — | — | — | — |
| Mongolia * | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 2 | — | — | — |
| | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 2 | — | — | — |
| | — | — | — | — | — | — | — | — | — | — | — | — | 4 | — | — | — | — | — | — |
| | — | — | — | — | — | — | — | — | — | — | — | — | 1 | — | — | — | — | — | — |
| Morocco | — | 3 | — | — | 4 | 1 | — | 2 | — | 2 | — | 122 | — | 27 | — | 2 | — | — | — |
| | — | 3 | 1 | — | 3 | — | — | 4 | — | — | 1 | 120 | — | 22 | — | 3 | — | — | — |
| Nepal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Netherlands | — | 21 | 15 | — | 54 | 2 | 5 | 23 | 14 | 45 | 32 | 193 | 37 | 561 | 1 | 69 | — | 2 | 10 |
| | — | 18 | 49 | 1 | 82 | — | — | 27 | 7 | 39 | 10 | 722 | 4 | 1939 | — | 14 | — | 2 | 5 |
| New Zealand | — | 217 | 6 | — | 20 | 3 | — | 26 | — | 18 | 16 | 107 | — | 181 | — | 10 | — | 4 | 5 |
| | 1 | 91 | 4 | 1 | 6 | — | — | 17 | 1 | 10 | — | 57 | — | 100 | — | 3 | — | 3 | 4 |
| Nicaragua | — | — | — | — | — | — | — | 1 | — | — | — | — | — | 17 | — | — | — | — | — |
| | — | 1 | — | — | — | — | — | — | — | — | — | — | — | 16 | — | — | — | — | — |
| Norway | — | 22 | 22 | 1 | 28 | 2 | — | 41 | 3 | 78 | 133 | 310 | 5 | 591 | — | 31 | 1 | 2 | 1 |
| | — | 11 | 14 | 1 | 12 | — | 1 | 21 | — | 36 | 48 | 143 | 3 | 255 | — | 10 | 1 | — | 6 |
| PAK | — | 3 | — | — | 3 | 1 | — | 1 | — | — | — | 112 | — | 18 | — | — | — | — | — |
| | — | — | — | — | 2 | — | — | 1 | — | — | — | 88 | 1 | — | — | — | — | — | — |



IP/STAT/1982/B

BREVETS

Demandes de brevets déposées par des non-résidents et brevets
délivrés à des non-résidents, en 1982 répartis selon leur pays d'origineBREVET
Tableau

| JP | LI | LU | MX | NL | NZ | NO | PA | PL | RO | ZA | SU | ES | SE | CH | GB | US | YU | Others/Autres ** | TOTAL | ← Pays d'origine | |
|-----|----|----|----|-----|----|----|----|----|----|----|-----|----|-----|------|------|-------|----|---------------------|-------|----------------------|---|
| | | | | | | | | | | | | | | | | | | | | ↓ Pays de délivrance | |
| 49 | 6 | 5 | 1 | 64 | 1 | 2 | — | — | — | 5 | — | 10 | 28 | 115 | 183 | 590 | 5 | 15 | 1969 | Grèce | |
| 39 | 7 | — | 4 | 31 | — | 2 | 1 | 1 | 1 | 3 | 1 | 17 | 15 | 64 | 84 | 307 | — | 16 | 1054 | | |
| 1 | — | — | — | — | — | — | — | — | — | — | — | — | — | 2 | 1 | 5 | — | 1 | 12 | Guyane | |
| 1 | — | — | — | — | — | — | — | — | — | — | — | — | — | 2 | 1 | 5 | — | 1 | 12 | | |
| 1 | — | — | — | — | — | — | — | — | — | 1 | — | 1 | — | — | 2 | 13 | — | 5 | 24 | Haiti | |
| 1 | — | — | — | — | — | — | — | — | — | 1 | — | 1 | — | — | 2 | 13 | — | 5 | 24 | | |
| 1 | — | — | — | 1 | — | — | — | — | — | — | — | — | — | 2 | 3 | 21 | — | 1 | 36 | Honduras | |
| — | — | — | — | 4 | — | — | — | — | — | — | — | 1 | — | 1 | 2 | 32 | — | 3 | 50 | | |
| 184 | 3 | — | — | 28 | 3 | — | — | — | — | — | — | — | 7 | 80 | 99 | 163 | — | 12 | 696 | Hong-Kong | |
| 175 | — | — | — | 11 | 3 | — | — | — | — | — | — | — | 5 | 58 | 58 | 120 | — | 7 | 549 | | |
| 90 | 8 | 1 | 1 | 31 | 2 | 1 | 7 | 10 | 5 | — | 39 | 2 | 16 | 120 | 84 | 283 | 8 | 4 | 1559 | Hongrie | |
| 64 | 4 | 2 | — | 42 | — | 2 | 5 | 19 | 2 | — | 54 | 3 | 18 | 64 | 64 | 166 | 5 | 2 | 1039 | | |
| 3 | — | — | — | 1 | — | 4 | — | — | — | — | — | — | 7 | 14 | 4 | — | 10 | 2 | 62 | Islande | |
| 3 | — | — | — | — | — | — | — | — | — | — | — | — | — | 5 | 1 | 9 | — | — | 24 | | |
| 12 | — | — | 1 | 15 | — | — | — | — | — | 1 | 2 | 1 | 12 | 49 | 21 | 64 | — | 1 | 273 | Iran | |
| 18 | — | — | 4 | 11 | — | — | — | — | — | — | 5 | — | 14 | 3 | 21 | 53 | — | — | 215 | | |
| 16 | — | — | 2 | 2 | — | — | 1 | — | — | — | — | 1 | 7 | 4 | 13 | 3 | — | 1 | 129 | Irak | |
| 9 | — | — | — | 2 | 1 | — | — | 2 | — | — | 2 | 2 | 2 | 3 | 7 | 6 | — | 1 | 96 | | |
| 115 | 9 | 3 | — | 78 | 10 | 15 | — | 1 | — | 5 | — | 2 | 52 | 153 | 480 | 991 | — | 8 | 2676 | Irlande | |
| 22 | 6 | 8 | — | 29 | 2 | 6 | — | — | — | 1 | 3 | 7 | 20 | 67 | 193 | 332 | — | — | 1064 | | |
| 55 | 8 | 1 | 2 | 36 | — | 2 | — | — | 1 | 7 | — | 6 | 23 | 179 | 143 | 1023 | — | — | 2207 | Israël | |
| 33 | — | 15 | — | 20 | — | 1 | 1 | 1 | — | 13 | — | 2 | 7 | 117 | 116 | 733 | 1 | 2 | 1509 | | |
| — | 48 | 29 | 13 | 924 | 29 | 41 | 27 | 8 | 1 | 38 | 220 | 68 | 369 | 1200 | 1555 | 10050 | 10 | 427 | 24427 | Japon | |
| — | 17 | 14 | 7 | 344 | 3 | 29 | 5 | 12 | 1 | 8 | 203 | 15 | 193 | 380 | 462 | 4101 | 1 | 69 | 8378 | | |
| 2 | — | — | 1 | 1 | — | — | — | — | — | — | — | — | 3 | 13 | 17 | 17 | — | — | 76 | Kenya | |
| 2 | — | — | 1 | 1 | — | — | — | — | — | — | — | — | 3 | 13 | 17 | 17 | — | — | 76 | | |
| 13 | 4 | — | — | 9 | — | 3 | — | — | — | — | 1 | — | 4 | 23 | 29 | 108 | — | — | 618 | Luxembourg | |
| 14 | — | — | — | 10 | — | 1 | — | — | 1 | — | 2 | 3 | 1 | 24 | 16 | 108 | — | 2 | 497 | | |
| — | — | — | — | — | — | — | 1 | — | — | 7 | — | — | 1 | 2 | 13 | 13 | — | 1 | 43 | Malawi | |
| — | 3 | — | — | 1 | — | — | — | — | — | 10 | — | — | — | 4 | 13 | 8 | — | 2 | 53 | | |
| — | — | — | — | — | — | — | — | — | — | — | — | 1 | — | — | — | — | — | — | 2 | Mali | |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | | |
| — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | 2 | 4 | 1 | — | — | 15 | Malte | |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | 2 | — | — | — | 4 | | |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | 6 | — | 1 | 8 | Maurice | |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | — | — | 3 | | |
| 171 | 6 | 3 | — | 59 | 4 | 9 | 14 | 1 | — | 4 | 10 | 97 | 54 | 83 | 179 | 2619 | — | 17 | 4280 | | |
| 88 | 10 | 6 | — | 55 | 1 | 8 | 10 | 1 | — | 4 | 8 | 35 | 34 | 59 | 85 | 1524 | — | 5 | 2386 | Mexique | * |
| 35 | — | — | — | 22 | — | — | 3 | — | — | — | — | — | — | 19 | 38 | 240 | — | 2 | 483 | | |
| 63 | 1 | — | — | 14 | — | 1 | 7 | — | — | 2 | 2 | 8 | 7 | 29 | 24 | 431 | — | 1 | 768 | | |
| 1 | — | — | — | — | — | — | — | — | — | — | — | 1 | — | 10 | 5 | 4 | — | — | 37 | Monaco | |
| 1 | — | — | — | — | — | — | — | — | — | — | — | 1 | — | 32 | 5 | 2 | — | 2 | 56 | | |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 2 | | |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 2 | Mongolie | * |
| — | — | — | — | — | — | — | — | — | — | — | 25 | — | — | — | — | — | — | — | 29 | | |
| 3 | 1 | — | — | 7 | — | 1 | — | — | — | — | 8 | — | — | — | — | — | — | — | 9 | | |
| 3 | — | — | — | 9 | — | 3 | — | — | — | 1 | 1 | 5 | 2 | 22 | 8 | 52 | — | 3 | 284 | Maroc | |
| — | — | — | — | — | — | — | — | — | — | — | 1 | 16 | 1 | 23 | 6 | 62 | — | 3 | 292 | | |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | — | — | — | — | 1 | Népal | |
| 470 | 19 | 4 | 4 | — | 4 | 18 | — | — | — | 1 | 18 | 23 | 49 | 127 | 144 | 1057 | 3 | 34 | 3212 | Pays-Bas | |
| 499 | 19 | 19 | 2 | — | 3 | 16 | 9 | 4 | — | 10 | 25 | 2 | 106 | 381 | 443 | 1457 | — | 11 | 6035 | | |
| 116 | 5 | 1 | 1 | 63 | — | 5 | 4 | — | — | 17 | 1 | 1 | 53 | 148 | 459 | 1002 | 1 | 11 | 2547 | Nouvelle-Zélande | |
| 50 | 2 | — | — | 51 | — | 2 | 1 | — | — | 7 | 1 | 1 | 29 | 71 | 227 | 426 | — | 6 | 1192 | | |
| — | — | — | — | 6 | — | — | — | — | — | — | — | — | — | 6 | 3 | 30 | — | — | 72 | Nicaragua | |
| — | — | — | — | 6 | — | — | — | — | — | — | — | — | — | 12 | 1 | 20 | — | 2 | 60 | | |
| 114 | 12 | 7 | 5 | 138 | 2 | — | 5 | 2 | — | 5 | 14 | 10 | 399 | 210 | 344 | 1083 | — | 9 | 3733 | Norvège | |
| 52 | 13 | 5 | 1 | 52 | — | — | 2 | 3 | — | 4 | 14 | 3 | 212 | 104 | 98 | 456 | — | 4 | 1641 | | |
| — | — | 3 | — | 4 | — | 2 | — | — | — | 1 | — | 2 | 8 | 14 | 25 | 70 | — | 3 | 290 | OAPI | |
| 2 | — | — | — | 7 | — | 2 | — | — | — | — | — | 3 | 1 | 10 | 11 | 38 | — | 3 | 171 | | |

PATENTS

Patent applications filed by and patents granted to non-residents in 1982, broken down according to the country of origin

non-residents in 1982, broken down according to the country of origin

| Country of origin → | AR | AU | AT | BS | BE | BR | BG | CA | CS | DK | FI | FR | DD | DE | GR | HU | IN | IE | IL |
|--------------------------|----|-----|-----|----|-----|----|----|------|----|-----|-----|------|-----|-------|----|-----|----|----|-----|
| Reporting country ↓ | | | | | | | | | | | | | | | | | | | |
| Panama | — | — | — | — | 1 | 2 | — | — | 1 | — | — | 4 | — | 3 | — | 1 | — | — | — |
| Paraguay | — | — | — | — | 1 | 2 | — | — | 1 | — | — | 4 | — | 3 | — | 1 | — | — | — |
| Peru | — | — | 1 | — | 5 | 3 | — | 1 | — | — | — | 4 | — | 2 | — | 1 | — | — | — |
| Philippines | 4 | — | 2 | — | 5 | 1 | — | — | — | 2 | — | 2 | — | 1 | — | 2 | — | — | — |
| Poland | 1 | 2 | — | — | 3 | 8 | — | 5 | — | — | 4 | 12 | — | 27 | 1 | 3 | — | — | — |
| Portugal | 2 | 1 | 1 | 1 | 3 | 8 | — | 4 | — | — | 7 | 23 | — | 21 | — | 5 | — | — | 1 |
| Republic of Korea | — | 13 | 3 | — | 7 | 1 | — | 10 | — | — | 1 | 23 | — | 155 | — | 12 | 10 | — | 9 |
| Romania | — | 5 | 16 | — | 15 | — | 2 | 9 | 18 | 5 | 8 | 57 | 27 | 185 | — | 112 | 1 | 1 | 1 |
| Rwanda | — | 1 | 29 | 1 | 9 | — | 3 | 7 | 12 | 10 | 6 | 57 | 16 | 228 | — | 55 | — | — | — |
| Sierra Leone | — | 8 | 6 | — | 32 | 3 | 3 | 12 | 1 | 13 | 6 | 253 | — | 249 | — | 25 | — | 2 | 5 |
| Singapore | — | 5 | 6 | — | 29 | — | — | 7 | — | 7 | 6 | 156 | — | 185 | 1 | 18 | — | 3 | 1 |
| South Africa | 1 | 20 | 5 | — | 21 | 3 | — | 30 | — | 11 | 13 | 203 | — | 300 | 1 | 3 | — | 2 | 5 |
| Spain | — | 8 | 3 | — | 8 | — | — | 7 | — | 4 | — | 98 | — | 225 | — | — | — | — | — |
| Sweden | — | 5 | 20 | — | 7 | — | 8 | 4 | 14 | 5 | 2 | 39 | 57 | 77 | 1 | 78 | — | — | 1 |
| Switzerland | — | 2 | 13 | 2 | 7 | — | 1 | 2 | 8 | 1 | 4 | 90 | 55 | 172 | — | 50 | — | — | 1 |
| Taiwan | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Tanzania | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Thailand | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Togo | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Turkey | — | 20 | 1 | 3 | 8 | — | — | 2 | 1 | 1 | 1 | 28 | — | 57 | — | — | — | — | — |
| United Kingdom | — | 15 | 1 | 3 | 10 | — | — | 3 | — | — | 1 | 12 | — | 46 | — | — | — | — | — |
| United States of America | 2 | 132 | 37 | 6 | 58 | 9 | — | 70 | — | 37 | 43 | 968 | — | 1103 | 2 | 22 | — | 7 | 44 |
| USSR | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Zambia | — | 12 | 33 | 2 | 14 | 6 | 1 | 21 | 2 | 23 | 109 | 189 | 3 | 500 | 1 | 217 | 3 | 1 | 4 |
| Zimbabwe | — | 3 | 28 | 1 | 9 | — | — | 7 | — | 10 | 26 | 159 | — | 360 | — | 82 | — | — | 1 |
| Yugoslavia | — | — | — | — | 1 | — | 32 | 1 | 74 | — | — | 2 | 386 | 1 | — | 7 | — | — | — |
| Zaire | 8 | 42 | 67 | 2 | 81 | 13 | 13 | 57 | 9 | 51 | 47 | 1155 | 2 | 1603 | 5 | 80 | 1 | 10 | 22 |
| Zambia | 7 | 33 | 82 | 4 | 77 | 7 | 3 | 53 | 6 | 28 | 29 | 1119 | 1 | 1555 | 6 | 63 | 1 | 8 | 24 |
| Zimbabwe | — | 1 | — | — | — | — | — | 1 | — | — | 1 | — | — | 11 | — | 1 | — | — | — |
| Other countries | — | 3 | — | — | — | — | — | 2 | — | — | 1 | 4 | — | 30 | — | 2 | 6 | 2 | — |
| Sweden | 1 | 22 | 28 | 1 | 24 | 2 | 5 | 37 | 13 | 72 | 228 | 150 | 56 | 611 | 4 | 63 | — | — | 7 |
| Switzerland | — | 29 | 101 | — | 65 | 1 | 7 | 51 | 17 | 79 | 99 | 638 | 21 | 1756 | — | 41 | — | 1 | 6 |
| Switzerland | 1 | 6 | 122 | — | 23 | 1 | 13 | 8 | 40 | 28 | 26 | 297 | 76 | 1202 | 2 | 89 | — | 3 | 10 |
| Syria | 1 | 34 | 158 | 3 | 80 | 1 | 3 | 18 | 19 | 36 | 27 | 894 | 19 | 3056 | 1 | 54 | 1 | 3 | 9 |
| Thailand | — | 1 | 1 | — | — | — | — | 1 | — | 1 | — | 17 | 1 | 5 | — | 1 | — | — | — |
| Thailand | — | 14 | — | 1 | 2 | 2 | — | 2 | — | 3 | 1 | 9 | — | 23 | — | 1 | — | 1 | — |
| Turkey | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Turkey | — | 6 | 2 | — | 5 | — | — | 4 | — | — | 2 | 31 | — | 77 | 1 | 6 | — | — | 3 |
| Uganda | — | 2 | 6 | 1 | 5 | — | — | 3 | — | — | 2 | 24 | 6 | 68 | 1 | 7 | — | — | 2 |
| United Kingdom | — | — | — | — | — | — | — | — | — | 1 | — | — | — | 2 | — | — | — | — | — |
| United Kingdom | — | — | — | — | — | — | — | — | — | 1 | — | — | — | 2 | — | — | — | — | — |
| United States of America | 5 | 200 | 78 | 7 | 161 | 20 | 21 | 256 | 65 | 144 | 120 | 608 | 142 | 2429 | 15 | 146 | 5 | 66 | 46 |
| United States of America | 5 | 221 | 28 | 3 | 117 | 7 | 25 | 243 | 71 | 167 | 107 | 1829 | 163 | 4910 | 2 | 107 | 5 | 41 | 38 |
| United States of America | 35 | 630 | 418 | 9 | 356 | 70 | 37 | 2138 | 77 | 277 | 300 | 3336 | 107 | 10002 | 21 | 225 | 20 | 48 | 316 |
| Uruguay | 18 | 266 | 229 | 2 | 224 | 27 | 13 | 990 | 50 | 121 | 125 | 1975 | 59 | 5409 | 9 | 112 | 4 | 24 | 114 |
| Venezuela | 10 | 5 | — | — | 3 | 7 | — | 1 | — | — | — | 7 | — | 31 | — | 3 | — | — | — |
| Venezuela | 11 | — | — | — | 2 | — | — | 1 | — | — | — | 5 | — | 7 | — | — | — | — | — |
| Venezuela | 5 | 7 | 4 | — | 13 | 9 | — | 27 | — | 5 | 5 | 97 | — | 150 | 1 | 7 | — | 3 | 7 |
| Yugoslavia | 9 | 6 | 6 | 3 | 9 | 20 | — | 14 | — | 6 | 3 | 117 | 13 | 89 | — | 4 | — | — | — |
| Yugoslavia | — | 8 | 42 | 1 | 16 | 5 | 9 | 5 | 9 | 5 | 14 | 151 | 59 | 290 | 2 | 99 | — | — | 2 |
| Zaire | — | — | 7 | — | 1 | — | — | 2 | 3 | 4 | 1 | 16 | 4 | 70 | 1 | 7 | — | — | 1 |
| Zaire | — | 2 | — | — | 11 | — | — | 3 | — | — | 3 | 9 | — | 1 | — | — | — | — | — |
| Zambia | — | 2 | — | — | 11 | — | — | 3 | — | — | 3 | 9 | — | 1 | — | — | — | — | — |
| Zambia | — | 6 | — | — | 1 | — | — | 2 | — | — | 2 | 2 | — | 1 | — | — | — | — | — |
| Zimbabwe | — | 2 | — | 1 | — | — | — | 2 | — | — | 2 | 2 | — | 1 | — | — | — | — | — |
| Zimbabwe | — | 8 | — | — | 5 | — | — | 4 | — | — | 5 | 3 | — | 6 | — | — | — | — | — |
| Zimbabwe | 1 | 11 | 1 | — | 1 | — | — | 5 | — | 1 | — | 2 | — | 21 | 1 | — | — | — | 3 |
| Zimbabwe | — | — | — | — | — | — | — | 6 | — | — | 3 | 10 | — | 17 | 1 | 2 | — | — | — |



IP/STAT/1982/B

BREVETS

Demandes de brevets déposées par des non-résidents et brevets
délivrés à des non-résidents, en 1982 répartis selon leur pays d'origineBREVETS
Tableau 1b

| | LI | LU | MX | NL | NZ | NO | PA | PL | RO | ZA | SU | ES | SE | CH | GB | US | YU | Autres** | TOTAL | ← Pays d'origine |
|----|----|----|------|-----|-----|----|----|----|-----|-----|-----|------|------|------|------|------|-----|----------|-------|-----------------------|
| | | | | | | | | | | | | | | | | | | | | ↓ Pays de délivrance |
| 1 | | | | | | | 9 | | | | | 3 | | 4 | | 54 | | 2 | 87 | |
| 2 | | | | | | | 9 | | | | | 3 | | 4 | | 54 | | 2 | 87 | Panama |
| 3 | | | | 1 | | | | | | 1 | | | | 3 | 3 | 12 | | 3 | 40 | Paraguay |
| 4 | | | | 8 | | | | | | 1 | | 2 | | 4 | 1 | 23 | | 3 | 61 | |
| 5 | | | 5 | 9 | | | 3 | | | 2 | | 3 | 6 | 8 | 19 | 135 | | 15 | 293 | Pérou |
| 6 | | | 6 | 14 | | 1 | 3 | | | 2 | | 19 | 10 | 2 | 14 | 139 | | 19 | 332 | |
| 7 | | | 1 | 20 | 3 | 2 | | | | 4 | | 4 | 26 | 59 | 155 | 658 | | 33 | 1514 | Philippines |
| 8 | 1 | | | 5 | 2 | 1 | 2 | | | 1 | | 2 | 1 | 24 | 27 | 268 | 1 | | 525 | |
| 9 | 3 | 2 | 1 | 19 | | 1 | 5 | | | | 5 | 1 | 25 | 55 | 69 | 269 | 5 | 2 | 990 | Pologne |
| 10 | 4 | 1 | 2 | 22 | | 5 | 2 | | 1 | 1 | 38 | 2 | 11 | 40 | 42 | 200 | 4 | 1 | 856 | |
| 11 | 5 | 3 | | 60 | 1 | 7 | 8 | 1 | | 5 | 1 | 60 | 31 | 137 | 171 | 456 | 5 | 11 | 1734 | Portugal |
| 12 | 6 | | | 40 | | 10 | 2 | 1 | 1 | 6 | 2 | 41 | 21 | 74 | 129 | 338 | 3 | 3 | 1204 | |
| 13 | 7 | 2 | 2 | 98 | 2 | 13 | 5 | | | 4 | | 11 | 42 | 129 | 169 | 1395 | 4 | 29 | 4368 | République de Corée |
| 14 | | 1 | | 35 | | 9 | 7 | | | | | 1 | 23 | 85 | 77 | 705 | | 12 | 2335 | |
| 15 | | 1 | 1 | 8 | | 3 | | 6 | | | 14 | | 9 | 21 | 29 | 185 | 1 | 1 | 639 | Roumanie |
| 16 | 3 | 2 | 4 | 20 | | 5 | 4 | 28 | | | 36 | 4 | 7 | 47 | 42 | 253 | 3 | | 920 | |
| 17 | | | | | | | | | | | | | | 1 | | 1 | | | 2 | Rwanda |
| 18 | | | | | | | | | | | | | | 1 | | 1 | | | 2 | |
| 19 | | | | | | | | | | | | | | | | | | | | Sierra Leone |
| 20 | 1 | | | 41 | 2 | 3 | | | | | | | 5 | 63 | 84 | 189 | | 8 | 644 | Singapour |
| 21 | | | | 31 | 4 | 3 | | | | | | | | 3 | 43 | 73 | 156 | | 12 | 516 |
| 22 | 16 | 17 | 1 | 70 | 22 | 9 | 4 | | | | | 7 | 106 | 334 | 958 | 2104 | 1 | 41 | 6585 | Afrique du Sud |
| 23 | | | | | | | | | | | | | | | | | | | | |
| 24 | 2 | 10 | 6 | 50 | 4 | 6 | 12 | 17 | 14 | | | 5 | 74 | 117 | 132 | 456 | 6 | 16 | 2418 | |
| 25 | 4 | 9 | 4 | 32 | 1 | 5 | 7 | 21 | 1 | 1 | | 3 | 53 | 91 | 60 | 220 | 3 | 5 | 1414 | Union soviétique * |
| 26 | | | | 1 | | | | | | | | | | | 2 | 4 | | | 568 | |
| 27 | | | | | | | | | | | | | | | 2 | | | | 378 | |
| 28 | 27 | 22 | 5 | 316 | 4 | 25 | 5 | 3 | | 10 | 2 | | 148 | 510 | 676 | 2500 | 7 | 41 | 8555 | Espagne |
| 29 | 20 | 22 | 7 | 316 | 2 | 22 | 6 | 6 | 2 | 17 | 20 | | 143 | 485 | 598 | 2278 | 5 | 33 | 7996 | |
| 30 | | | | 4 | | | 1 | | | | | | | 7 | 12 | 24 | | 9 | 76 | Sri Lanka |
| 31 | | | | 13 | 2 | | 1 | | | 1 | | | | 47 | 28 | 76 | | 13 | 241 | |
| 32 | 28 | 7 | 3 | 54 | 4 | 61 | 1 | 5 | 1 | 9 | 158 | 17 | | 175 | 159 | 1002 | 7 | 13 | 3442 | Suède |
| 33 | 20 | 15 | 3 | 279 | 3 | 53 | 4 | 2 | 1 | 11 | 122 | 10 | | 426 | 451 | 1489 | | 8 | 6230 | |
| 34 | 68 | 7 | | 47 | | 11 | 2 | 2 | | 3 | 44 | 31 | 52 | | 119 | 675 | 10 | 16 | 3637 | Suisse |
| 35 | 59 | 20 | 1 | 293 | 1 | 19 | 12 | 8 | 1 | 15 | 62 | 23 | 183 | | 437 | 1397 | 2 | 17 | 7712 | |
| 36 | 1 | | | 4 | | | | | | | | | | 4 | 14 | 11 | | 1 | 82 | Syrie |
| 37 | | | | 4 | | | | | | | | | | 4 | 14 | 11 | | 1 | 82 | |
| 38 | | | 1 | 20 | 1 | 1 | | | | | 1 | | 9 | 18 | 25 | 123 | | 9 | 332 | Thaïlande |
| 39 | | | 1 | | | | | | | | | | | | | 2 | | | 3 | |
| 40 | | | 1 | 25 | | | | | | 3 | 4 | | 3 | 31 | 29 | 102 | | | 385 | Turquie |
| 41 | | | | 4 | | 2 | 3 | | | | 6 | 2 | 3 | 22 | 13 | 82 | | 2 | 304 | |
| 42 | | | | 1 | | | | | | | | | | 5 | 4 | 2 | | | 17 | Ouganda |
| 43 | | | | 1 | | | | | | | | | | 5 | 4 | 2 | | | 17 | |
| 44 | 30 | 30 | 17 | 493 | 52 | 69 | 7 | 11 | 1 | 81 | 152 | 85 | 317 | 715 | | 5223 | 15 | 450 | 16563 | Royaume-Uni |
| 45 | 41 | 5 | 990 | 46 | 84 | 7 | 40 | 7 | 81 | 191 | 70 | 817 | 1179 | | 7831 | | 9 | 104 | 24904 | |
| 46 | 45 | 70 | 1077 | 87 | 152 | | 25 | 8 | 199 | 331 | 159 | 1144 | 1820 | 4351 | | | 24 | 817 | 46309 | Etats-Unis d'Amérique |
| 47 | 19 | 26 | 35 | 619 | 44 | 65 | 1 | 26 | 5 | 73 | 209 | 49 | 685 | 1147 | 2135 | | 10 | 173 | 23993 | |
| 48 | | | | 4 | | | 3 | | | | 1 | 2 | | 17 | 11 | 40 | | 2 | 157 | Uruguay |
| 49 | | | | 3 | | 1 | | | | | | 1 | 1 | 23 | 2 | 30 | | 1 | 90 | |
| 50 | 1 | 2 | 9 | 57 | 2 | 2 | 18 | | | 1 | 5 | 31 | 25 | 66 | 96 | 230 | | 12 | 1028 | Venezuela |
| 51 | 11 | 5 | 12 | 51 | 3 | 6 | 6 | 1 | | | 4 | 93 | 16 | 68 | 82 | 779 | 4 | 21 | 1570 | |
| 52 | 14 | | 1 | 22 | | 6 | 12 | 5 | | 2 | 30 | 2 | 36 | 82 | 96 | 372 | | | 1556 | Yougoslavie |
| 53 | 4 | | | 3 | | 2 | | 2 | | | | 1 | 3 | 17 | 9 | 45 | | | 215 | |
| 54 | | | | 2 | | | | | | | | | 2 | 6 | 13 | 36 | | 1 | 93 | Zaire |
| 55 | | | | 2 | | | | | | | | | 2 | 6 | 13 | 36 | | 1 | 93 | |
| 56 | | | | | | | | | | 18 | | | 2 | 4 | 22 | 25 | | 2 | 91 | Zambie |
| 57 | | | 2 | 1 | 1 | | | | | 22 | | | | 2 | 41 | 23 | | 1 | 120 | |
| 58 | | | | 1 | | | 1 | | | 45 | | | 2 | 14 | 63 | 56 | | 2 | 230 | Zimbabwe |
| 59 | 1 | | | 3 | | 3 | | | | 42 | | | 9 | 20 | 54 | 62 | | 1 | 255 | |

SOURCE:

Industrial Property Statistics
1982 in the form of Summary
Tables. W.I.P.O., Geneva, 1983
IP/STAT/1982/B
pp. 8-9, 16, 10-15



IP/STAT/1981/B

PATENTS/BREVETS

Patent applications filed and patents granted during 1981
Demandes et délivrances de brevets au cours de 1981

PATENTS
Chart 1a

BRE
Table

| COUNTRIES PAYS | Applications for patents filed by Demandes de brevets déposées par des | | | Grants of patents to Brevets délivrés à des | | | Country Code de |
|---|---|--------------------------------|--------|--|--------------------------------|-------|--------------------|
| | Residents Résidents | Non-residents Non-résidents | Total | Residents Résidents | Non-residents Non-résidents | Total | |
| | | | | | | | |
| Algeria/Algérie * | — | 340 | 340 | — | — | — | DZ |
| | 14 | — | 14 | — | — | — | |
| Argentina/Argentine | 954 | 3321 | 4275 | 820 | 2694 | 3514 | AR |
| Australia/Australie | 6341 | 9807 | 16148 | 505 | 5929 | 6434 | AU |
| Austria/Autriche | 2390 | 3428 | 5818 | 1120 | 4360 | 5480 | AT |
| Bahamas | 2 | 51 | 53 | — | 51 | 51 | BS |
| Bahrain/Bahreïn | 1 | 28 | 29 | 1 | 29 | 30 | BH |
| Bangladesh | 39 | 133 | 172 | 17 | 85 | 102 | BD |
| Barbados/Barbade | — | 38 | 38 | — | 22 | 22 | BB |
| Belgium/Belgique 1 | 806 | 3918 | 4724 | 788 | 3902 | 4690 | BE |
| Bolivia/Bolivie | 12 | 120 | 132 | 6 | 145 | 151 | BO |
| Brazil/Brésil | 2171 | 6113 | 8284 | 844 | 9448 | 10292 | BR |
| | 4 | 361 | 365 | 1 | 239 | 240 | |
| Bulgaria/Bulgarie * | 3669 | 510 | 4179 | 1416 | 144 | 1560 | BG |
| Burundi | — | 5 | 5 | — | 5 | 5 | BF |
| Canada 2 | 1951 | 23547 | 25498 | 1369 | 21327 | 22696 | CA |
| Chile/Chili | 92 | 744 | 836 | 67 | 568 | 635 | CL |
| Colombia/Colombie | 39 | 604 | 643 | 4 | 202 | 206 | CO |
| Costa Rica | 41 | 91 | 132 | 8 | 20 | 28 | CR |
| Cuba | 122 | 58 | 180 | 32 | 32 | 64 | CU |
| Cyprus/Chypre | — | 34 | 34 | — | 27 | 27 | CY |
| Czechoslovakia/Tchécoslovaquie 2 * | 69 | 1282 | 1351 | 1 | 1349 | 1350 | CZ |
| | 7967 | 737 | 8704 | 5446 | 211 | 5657 | |
| Denmark/Danemark | 1085 | 4745 | 5830 | 163 | 1276 | 1439 | DK |
| Ecuador/Equateur | 14 | 180 | 194 | 3 | 31 | 34 | EC |
| Egypt/Égypte | 59 | 738 | 797 | 8 | 249 | 257 | EG |
| El Salvador | 17 | 107 | 124 | — | — | — | SV |
| Fiji/Fidji | — | 14 | 14 | — | 5 | 5 | FJ |
| Finland/Finlande | 1423 | 2809 | 4232 | 491 | 1559 | 2050 | FI |
| France 1 | 10945 | 13723 | 24668 | 6855 | 14622 | 21477 | FR |
| German Dem. Rep./Rép. dém. allemande | 7420 | 2177 | 9597 | 5713 | 1734 | 7447 | DE |
| Germany (Fed. Rep.)/Allemagne (Rép. féd.) 1 | 29841 | 16738 | 46579 | 6537 | 6892 | 13429 | DE |
| Ghana | — | 19 | 19 | — | 19 | 19 | GH |
| Greece/Grèce | 1273 | 1881 | 3154 | 1368 | 1164 | 2532 | GR |
| Haiti/Haïti | — | — | 8 | — | 14 | 14 | HT |
| Hong Kong/Hong-Kong | 22 | 637 | 659 | 22 | 632 | 654 | HK |
| Hungary/Hongrie | 2124 | 1528 | 3652 | 764 | 840 | 1604 | HU |
| Iceland/Islande | 14 | 79 | 93 | 1 | 28 | 29 | IS |
| India/Inde | 1067 | 1834 | 2901 | 419 | 870 | 1289 | IN |
| Iraq/Irak | 26 | 107 | 133 | 13 | 45 | 58 | IQ |
| Ireland/Irlande | 461 | 2649 | 3110 | 25 | 1315 | 1340 | IE |
| Israel/Israël | 727 | 2132 | 2859 | 294 | 1241 | 1535 | IL |
| Italy/Italie | — | — | 14843 | — | — | 6500 | IT |
| Japan/Japon 3 | 191621 | 24686 | 216307 | 42080 | 8824 | 50904 | JP |
| Jordan/Jordanie | — | 91 | 91 | — | — | — | JO |
| Kenya | — | 75 | 75 | — | 75 | 75 | KE |
| Luxembourg 1 | 109 | 708 | 817 | 73 | 745 | 818 | LU |
| Malawi | 7 | 41 | 48 | 2 | 32 | 34 | MW |
| Mali | 1 | 7 | 8 | — | — | — | ML |
| Malta/Malte | 6 | 17 | 23 | 2 | 19 | 21 | MT |
| Mauritius/Maurice | 2 | 19 | 21 | — | 8 | 8 | MR |
| Mexico/Mexique * | 704 | 4624 | 5328 | 188 | 2022 | 2210 | MX |
| | 61 | 608 | 669 | 22 | 593 | 615 | |
| Monaco | 20 | 56 | 76 | 9 | 59 | 68 | MC |



IP/STAT/1981/B

PATENTS/BREVETS

PATENTS
Chart 1aPatent applications filed and patents granted during 1981
Demandes et délivrances de brevets au cours de 1981BREVETS
Tableau I

| COUNTRIES PAYS | Applications for patents filed by Demandes de brevets déposées par des | | | Grants of patents to Brevets délivrés à des | | | Country code Code des pays |
|---|---|--------------------------------|--------|--|--------------------------------|-------|-------------------------------|
| | Residents Résidents | Non-residents Non-résidents | Total | Residents Résidents | Non-residents Non-résidents | Total | |
| Morocco/Maroc | 36 | 299 | 335 | 31 | 281 | 312 | MA |
| Netherlands/Pays Bas | 1897 | 4228 | 6125 | 397 | 2661 | 3058 | NL |
| New Zealand/Nouvelle-Zélande | 1033 | 2424 | 3457 | 199 | 1435 | 1634 | NZ |
| Norway/Norvège | 714 | 3785 | 4499 | 179 | 1668 | 1847 | NO |
| Oman | 7 | 278 | 285 | — | — | — | OA |
| Panama | 8 | 90 | 98 | 2 | 22 | 24 | PA |
| Paraguay | 22 | 85 | 107 | 2 | 49 | 51 | PY |
| Peru/Pérou | 50 | 375 | 425 | 32 | 313 | 345 | PE |
| Philippines | 91 | 1514 | 1605 | 69 | 718 | 787 | PH |
| Poland/Pologne | 4370 | 1188 | 5558 | 4693 | 1409 | 6102 | PL |
| Portugal | 90 | 1843 | 1933 | 48 | 1540 | 1588 | PT |
| Rep. of Korea/Rep. de Corée | 1319 | 3984 | 5303 | 232 | 1576 | 1808 | KR |
| Romania/Roumanie | 2481 | 681 | 3162 | 1228 | 1276 | 2504 | RO |
| Rwanda | — | 7 | 7 | — | 7 | 7 | RW |
| Saint Lucia/Sainte-Lucie | — | 10 | 10 | — | 10 | 10 | LC |
| Samoa | 2 | — | 2 | — | — | — | WS |
| Seychelles | — | 7 | 7 | — | 7 | 7 | SC |
| Sierra Leone | — | — | — | — | 23 | 23 | SL |
| Somalia/Somalie | — | — | — | 2 | 143 | 145 | SO |
| South Africa/Afrique du Sud | 3340 | 5694 | 9034 | — | — | 6005 | ZA |
| Soviet Union/Union soviétique | 5 | 2590 | 2595 | 1 | 1715 | 1716 | SU * |
| | 146223 | 682 | 146905 | 96536 | 227 | 96763 | |
| Spain/Espagne | 1718 | 8509 | 10227 | 1115 | 6140 | 7255 | ES |
| Sri Lanka | 6 | 102 | 108 | 19 | 58 | 77 | LK |
| Swaziland/Souaziland | — | — | — | — | 25 | 25 | SZ |
| Sweden/Suède | 3914 | 3968 | 7882 | 1321 | 3561 | 4882 | SE |
| Switzerland/Suisse | 3712 | 4430 | 8142 | 1908 | 6381 | 8289 | CH |
| Syria/Syrie | 7 | 76 | 83 | — | — | — | SY |
| Thailand/Thaïlande | 26 | 304 | 330 | — | — | — | TH |
| Tunisia/Tunisie | 28 | 183 | 211 | 25 | 152 | 177 | TN |
| Turkey/Turquie | 157 | 368 | 525 | 26 | 254 | 280 | TR |
| Uganda/Ouganda | — | 55 | 55 | — | 55 | 55 | UG |
| United Kingdom/Royaume-Uni | 20808 | 18406 | 39214 | 6076 | 16848 | 22924 | GB |
| United States America/États-Unis Amérique | 62404 | 44009 | 106413 | 39225 | 26545 | 65770 | US |
| Uruguay | 71 | 227 | 298 | 21 | 158 | 179 | UY |
| Venezuela | 176 | 1980 | 2156 | 58 | 755 | 813 | VE |
| Yemen/Yémen dém. | — | 3 | 3 | — | — | — | YD |
| Yugoslavia/Yougoslavie | 1422 | 1734 | 3156 | 94 | 741 | 835 | YU |
| Zaire/Zaire | 8 | 74 | 82 | 8 | 73 | 81 | ZR |
| Zambia/Zambie | 1 | 107 | 108 | — | 68 | 68 | ZM |
| Zimbabwe | 35 | 274 | 309 | 5 | 274 | 279 | ZW |



IP/STAT/1981/B

PATENTS/BREVETS

Patents in force on December 31, 1981 broken down according to the year of grant
Brevets en vigueur au 31 décembre 1981 répartis selon l'année de délivrance

PATENTS
Chart II

BREVETS
Tabl

| CODES | 1981 | 1980 | 1979 | 1978 | 1977 | 1976 | 1975 | 1974 | 1973 | 1972 | 1971 | BEFORE AVANT 1971 | TO |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------------------|-----|
| AR | 3514 | 4562 | 3368 | 1744 | 3008 | 4102 | 3384 | 4485 | 4223 | 5052 | 5277 | 25403 | 6 |
| AW | | | | | | | | | | | | | 5 |
| AT 1 2 | 4708 | 5358 | 5333 | 4554 | 4263 | 3679 | 3486 | 3279 | 2570 | 2553 | 2080 | 6943 | 4 |
| BB | 17 | 44 | 33 | 24 | 9 | 12 | 15 | 6 | 4 | 7 | 9 | 14 | |
| BE 1 | 4690 | 5311 | 6465 | 8142 | 8854 | 7929 | 7038 | 6518 | 6046 | 5229 | 4600 | 19226 | 9 |
| BG * | 240 | 363 | 404 | 281 | 131 | 142 | 155 | 88 | 108 | 34 | 55 | 118 | |
| BR | 1560 | 1373 | 1453 | 1377 | 1726 | 832 | 875 | 1018 | 836 | 750 | 694 | 3809 | 1 |
| BS | 5 | 10 | 1 | 4 | 6 | 7 | 6 | 4 | 2 | 4 | 5 | 53 | |
| CA 3 | 22696 | 23895 | 23546 | 21796 | 20793 | 21741 | 20544 | 21287 | 21246 | 28295 | 29593 | 158835 | 41 |
| CH | 635 | 816 | 440 | 588 | 533 | 567 | 703 | 566 | 580 | 869 | 1091 | 3873 | 1 |
| CO | 206 | 403 | 844 | 45 | 100 | 14 | 5 | 16 | 8 | 50 | 697 | | |
| CR | 28 | 32 | 20 | 12 | 66 | 42 | 82 | 59 | 63 | 37 | 42 | 740 | |
| CU | 64 | 156 | | 22 | 29 | 38 | 6 | 33 | 20 | 21 | 47 | 437 | |
| CY | 27 | 66 | 52 | 42 | 59 | 52 | 59 | 59 | 46 | 44 | 49 | 87 | |
| EG 3 | | 1 | 7 | 177 | 395 | 483 | 579 | 584 | 425 | 426 | 333 | 616 | |
| FJ | 5 | 9 | | | | | | | | | | | |
| FI | 1939 | 1680 | 1298 | 1054 | 675 | 548 | 514 | 409 | 262 | 254 | 230 | 186 | |
| FR 1 4 | 23981 | 24849 | 26915 | 29396 | 27590 | 24927 | 20502 | 18958 | 18187 | 16023 | 14253 | 59725 | 308 |
| GB | 19 | 17 | 37 | 39 | 75 | 45 | 52 | 50 | 48 | 61 | 96 | 439 | |
| GR | | | | | | | | | | | | | 13 |
| IS | 29 | 27 | 23 | 19 | 27 | 36 | 8 | 19 | 11 | 6 | 45 | 19 | |
| IN | 1289 | 1470 | 1100 | 1049 | 1257 | 936 | 701 | 866 | 401 | 421 | 865 | 1637 | 1 |
| IO | 58 | 33 | 64 | 3 | 95 | 115 | 157 | 136 | 84 | 132 | 27 | | |
| IE | 1316 | 1271 | 937 | 802 | 782 | 573 | 500 | 528 | 375 | 336 | 319 | 360 | |
| IL | | | | | | | | | | | | | 1 |
| JP 3 | 50904 | 46106 | 44104 | 39179 | 40665 | 27536 | 30093 | 24845 | 23704 | 21514 | 17422 | 41561 | 407 |
| KE | 75 | 97 | 98 | 106 | 124 | 98 | 95 | 126 | 117 | 131 | 120 | 406 | |
| LU 1 4 | 817 | 831 | 992 | 1307 | 1379 | 1208 | 1068 | 844 | 685 | 607 | 481 | 2130 | 12 |
| MW | 34 | 31 | 28 | 26 | 29 | 26 | 27 | 25 | 16 | 26 | 6 | 47 | |
| MT | 21 | 12 | 12 | 4 | 11 | 5 | 5 | 6 | 2 | 4 | 9 | 9 | |
| MU | 8 | 13 | 19 | 15 | 14 | 10 | 17 | 24 | 27 | 20 | 3 | 22 | |
| MX * | 2210 | 2002 | 2027 | 1653 | 2044 | 2441 | 3638 | 3503 | 3388 | 2806 | 2136 | 6228 | 34 |
| | 615 | 556 | 666 | 847 | 1230 | 190 | | | | | | | 4 |
| MC | 53 | 48 | 38 | 29 | 21 | 17 | 15 | 16 | 15 | 8 | 4 | 60 | |
| MA | 312 | 351 | 372 | 381 | 401 | 321 | 286 | 229 | 221 | 210 | 145 | 1002 | 4 |
| NL 1 | 3004 | 2997 | 2794 | 2367 | 2302 | 1856 | 1683 | 1266 | 1049 | 836 | 596 | 2101 | 22 |
| NO | 1779 | 1788 | 1508 | 1311 | 1268 | 1030 | 941 | 868 | 730 | 593 | 518 | 721 | 13 |
| OA | | 568 | 573 | 357 | 269 | 10 | 126 | 294 | 288 | 361 | 470 | 2288 | 5 |
| PA | 24 | 43 | 153 | 34 | 12 | 79 | 160 | 47 | 191 | 286 | | | 1 |
| PE | 345 | 331 | 466 | 1036 | 235 | 170 | 57 | 468 | 644 | 573 | 871 | | 5 |
| PH | 787 | 902 | 853 | 878 | 1047 | 869 | 750 | 802 | 730 | 780 | 611 | 2950 | 11 |
| PL | 5282 | 6694 | 4949 | 2454 | 2429 | 2490 | 2149 | 843 | 156 | 412 | 183 | 274 | 28 |
| PR | 1576 | 1632 | 1419 | 427 | 274 | 479 | 442 | 322 | 199 | 218 | 229 | 266 | 7 |
| RO 4 | 2296 | 2265 | 2597 | 1453 | 2049 | 1291 | 918 | 1377 | 814 | 564 | 671 | 1260 | 17 |
| RW | 7 | 2 | 6 | 2 | 6 | 6 | 9 | 2 | 2 | 2 | 6 | 35 | |
| TC | 10 | 14 | 15 | 2 | 4 | 2 | 9 | 10 | 9 | 5 | 7 | 15 | |
| WS | | 1 | 3 | 1 | 3 | 1 | 1 | 1 | 2 | | | | |
| SC | 7 | 3 | 5 | 1 | 4 | 2 | 3 | 3 | 1 | 3 | 4 | 14 | |
| SL | 23 | 34 | 25 | 13 | 9 | 18 | 21 | 26 | 20 | 22 | 22 | | |
| SU | 1692 | 1473 | 2043 | 1772 | 1349 | 787 | 837 | 600 | 675 | 515 | 419 | 420 | 12 |
| LK | 77 | 620 | | | 1 | | | | | | | | |
| SZ | 25 | 11 | 27 | 27 | 14 | 9 | 11 | 11 | 15 | 24 | 9 | | |
| SE 1 | | 94 | 654 | 1286 | 2291 | 3616 | 4953 | 5644 | 5632 | 4814 | 4008 | 14455 | 47 |
| CH | 8202 | 5789 | 5490 | 556 | 15303 | 6780 | 6409 | 5192 | 4795 | 4284 | 3910 | 13259 | 79 |
| IN | 177 | 227 | 242 | 211 | 114 | 212 | 201 | 380 | 137 | 385 | 89 | 2063 | 4 |
| IR | 291 | 484 | 458 | 398 | 656 | 623 | 462 | 246 | 311 | 449 | 400 | 1832 | 6 |
| UG | 56 | 38 | 18 | 31 | 33 | 54 | 56 | 56 | 41 | 55 | 83 | 944 | 1 |
| US | 65770 | 61827 | 48853 | 66140 | 65269 | 70236 | 71994 | 76275 | 74139 | 74813 | 78316 | 388005 | 114 |
| VE | | 757 | 650 | 1748 | 740 | 1934 | 1418 | 1647 | 1482 | 2310 | 1620 | | 14 |
| ZR | 81 | 104 | 97 | 116 | 121 | 186 | 147 | 127 | 144 | 144 | 132 | 1153 | 25 |



IP/STAT/1981/B

PATENTS/BREVETS

Patents
Part II

Patents in force on December 31, 1981 broken down according to the year of grant
Brevets en vigueur au 31 décembre 1981 répartis selon l'année de délivrance

BREVETS
Tableau II

| CODES | 1981 | 1980 | 1979 | 1978 | 1977 | 1976 | 1975 | 1974 | 1973 | 1972 | 1971 | BEFORE AVANT 1971 | TOTAL |
|-------|------|------|------|------|------|------|------|------|------|------|------|-------------------------|-------|
| ZM | 1 | 3 | 2 | 57 | 64 | 73 | 90 | 61 | 57 | 36 | 30 | 111 | 585 |
| ZW | 276 | 212 | 189 | 160 | 153 | 204 | 137 | 123 | 152 | 108 | 37 | 576 | 2327 |



IP/STAT/1981/B

PATENTS

PATENTS Patent applications filed by and patents granted to
Chart 1b non-residents in 1981, broken down according to the country of origin

| Country of origin → | AR | AU | AT | BS | BE | BR | BG | CA | CS | DK | FI | FR | DD | DE | GR | HU | IN | IE | IL | IT |
|----------------------------|----|-----|-----|----|-----|----|----|-----|-----|-----|-----|------|-----|------|----|-----|----|----|----|----|
| Reporting country ↓ | | | | | | | | | | | | | | | | | | | | |
| Algeria | — | 3 | 3 | — | 11 | 2 | — | 2 | — | — | — | 76 | 2 | 33 | — | 5 | — | — | — | — |
| Argentina | — | 30 | 22 | 1 | 25 | 36 | 3 | 36 | 3 | 6 | 3 | 218 | — | 501 | 2 | 40 | 1 | 3 | 15 | 22 |
| | — | 17 | 24 | 3 | 15 | 24 | 3 | 23 | — | 7 | 9 | 241 | 1 | 239 | 1 | 25 | — | — | 6 | 22 |
| Australia | 5 | — | 57 | 4 | 47 | 4 | 5 | 175 | 5 | 28 | 31 | 374 | 1 | 1025 | 5 | 55 | 3 | 10 | 37 | 17 |
| | — | — | 35 | 3 | 43 | 4 | 1 | 98 | 3 | 28 | 16 | 276 | — | 533 | — | 15 | 2 | 2 | 15 | 12 |
| Austria | 1 | 9 | — | 2 | 17 | 3 | 6 | 6 | 30 | 18 | 24 | 129 | 68 | 1282 | — | 147 | — | 2 | 3 | 14 |
| | — | 12 | — | 1 | 30 | 3 | 4 | 17 | 20 | 22 | 36 | 278 | 34 | 1930 | — | 61 | — | 2 | 8 | 10 |
| Bahamas | — | — | — | — | 1 | — | — | — | — | — | — | 2 | — | — | — | — | — | — | — | — |
| | — | 2 | — | — | 1 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Bahrain | — | — | — | — | — | — | — | — | — | — | — | 3 | — | 3 | — | — | — | — | — | — |
| | — | — | — | — | — | — | — | — | — | — | — | 1 | — | — | — | — | — | — | — | — |
| Bangladesh | — | 1 | — | — | 1 | — | — | — | — | — | — | 6 | — | 8 | — | — | 5 | 2 | — | — |
| | — | 1 | — | — | 5 | — | — | — | — | — | — | 10 | — | 2 | — | — | 1 | — | — | — |
| Barbados | — | — | — | — | — | — | — | — | — | 2 | — | — | — | 1 | — | — | — | — | — | — |
| | — | — | — | — | — | — | — | — | — | 1 | — | — | — | 1 | — | — | — | — | — | — |
| Belgium | 3 | 26 | 27 | — | — | 2 | 2 | 21 | 15 | 31 | 31 | 466 | 11 | 631 | 1 | 66 | 4 | 4 | 6 | 22 |
| | 3 | 26 | 27 | — | — | 2 | 2 | 21 | 15 | 31 | 31 | 459 | 11 | 631 | 1 | 66 | 4 | 4 | 6 | 22 |
| Bolivia | 4 | 2 | — | — | — | 1 | — | 2 | — | 2 | — | 6 | — | 13 | — | 4 | 2 | — | — | — |
| | 7 | 4 | — | — | 6 | 4 | — | 1 | 1 | — | — | 5 | — | 12 | — | 1 | — | 1 | — | — |
| Brazil | 36 | 45 | 39 | — | 22 | — | 4 | 50 | 3 | 6 | 29 | 510 | — | 1275 | 1 | 36 | 1 | 22 | 15 | 20 |
| | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Bulgaria | — | — | 6 | — | 6 | 1 | — | — | — | — | 7 | 25 | — | 41 | — | 55 | — | — | — | — |
| | — | 1 | 6 | — | — | — | — | — | — | — | 2 | 13 | 3 | 48 | — | 37 | — | — | — | — |
| | — | — | — | — | — | — | — | — | 54 | — | — | — | 151 | — | — | — | — | — | — | — |
| | — | — | — | — | 1 | — | — | — | 6 | — | — | — | 39 | — | — | — | — | — | — | — |
| Burundi | — | — | — | — | — | — | — | 1 | — | — | — | 1 | — | — | — | — | 2 | — | — | — |
| | — | — | — | — | — | — | — | 1 | — | — | — | 1 | — | — | — | — | 2 | — | — | — |
| Canada | 15 | 269 | 163 | 3 | 175 | 17 | 12 | — | 14 | 110 | 142 | 1163 | 2 | 2192 | 5 | 93 | 5 | 33 | 44 | 4 |
| | 5 | 159 | 135 | 1 | 164 | 7 | 9 | — | 20 | 85 | 99 | 1061 | — | 1845 | 2 | 41 | 5 | 15 | 30 | 3 |
| Chile | 8 | 4 | 5 | — | 4 | 14 | — | 12 | — | 1 | 10 | 20 | — | 132 | — | 4 | — | — | 5 | — |
| | 5 | 5 | 2 | 1 | 7 | 7 | — | 3 | — | 2 | 8 | 16 | — | 88 | — | — | — | — | — | — |
| Colombia | 2 | 2 | 2 | — | — | 4 | — | 6 | — | — | — | 32 | — | 33 | — | 1 | — | 1 | — | — |
| | — | — | — | — | 2 | 1 | — | 6 | — | 2 | — | 12 | — | 16 | — | — | — | — | — | — |
| Costa Rica | — | — | — | — | — | — | — | — | — | — | — | 1 | — | 7 | — | — | — | — | — | — |
| | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Cuba | — | 2 | — | — | — | — | — | 1 | 1 | — | 1 | 6 | 1 | 5 | — | 4 | — | — | — | — |
| | — | — | — | — | — | — | — | 2 | — | 2 | 1 | 3 | — | 2 | — | 2 | — | — | — | — |
| Cyprus | — | 1 | — | — | — | — | — | — | — | 1 | — | 2 | — | 1 | 1 | — | — | — | — | — |
| | — | 1 | — | — | — | — | — | — | — | — | — | 2 | — | 1 | 1 | — | — | — | — | — |
| Czechoslovakia | — | 6 | 58 | — | 8 | 2 | 10 | 10 | — | 3 | 17 | 60 | — | 321 | — | 130 | — | — | — | — |
| | 1 | 7 | 43 | — | 5 | — | 2 | 7 | — | 11 | 6 | 90 | 3 | 352 | — | 82 | — | — | — | — |
| | — | — | — | — | — | — | 34 | — | — | — | — | — | 314 | — | 1 | 2 | — | — | — | — |
| | — | — | 1 | — | — | — | 5 | — | — | — | — | — | 107 | 1 | — | 7 | — | — | — | — |
| Denmark | 2 | 29 | 45 | — | 30 | 1 | 4 | 21 | 7 | — | 74 | 329 | 22 | 1070 | 1 | 61 | — | 16 | 5 | 10 |
| | — | 3 | 7 | — | 13 | — | — | 6 | 6 | — | 13 | 104 | 1 | 318 | — | 16 | — | 1 | 2 | 3 |
| Ecuador | 2 | — | — | — | 1 | 2 | — | — | — | — | — | 8 | — | 12 | 1 | — | — | — | — | — |
| | — | — | — | — | 3 | — | — | — | — | — | — | 1 | — | 5 | — | — | — | — | — | — |
| Egypt | 1 | 4 | — | — | 12 | 2 | — | 1 | — | 1 | 3 | 81 | — | 105 | 1 | 12 | — | 3 | 6 | 4 |
| | — | — | 4 | — | 3 | — | — | — | — | — | — | 20 | — | 44 | — | 3 | — | — | — | — |
| El Salvador | — | — | — | — | — | — | — | — | — | 1 | — | 6 | — | 16 | — | — | 2 | — | — | — |
| | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Eri | — | — | — | — | — | — | — | — | — | — | — | — | — | 2 | — | — | — | — | — | — |
| | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | — | — | — | — | — | — |
| Finland | 1 | 11 | 33 | 2 | 31 | — | 5 | 50 | 4 | 35 | — | 143 | 10 | 551 | 1 | 59 | — | 4 | — | 5 |
| | — | 3 | 23 | — | 11 | — | 5 | 27 | 12 | 25 | — | 96 | — | 283 | — | 13 | — | 1 | — | 2 |
| France | 7 | 66 | 156 | 5 | 142 | 13 | 19 | 102 | 65 | 76 | 78 | — | 148 | 3132 | 4 | 140 | 2 | 7 | 39 | 8 |
| | 3 | 60 | 148 | 2 | 135 | 5 | 24 | 92 | 31 | 101 | 61 | — | 60 | 3610 | 5 | 62 | 1 | 8 | 24 | 70 |
| German Democratic Republic | — | 3 | 47 | — | 7 | 1 | 46 | 3 | 125 | 5 | 20 | 77 | — | 441 | — | 131 | — | — | — | 4 |
| | — | 5 | 45 | — | 17 | 1 | — | 4 | 47 | 11 | 13 | 104 | — | 549 | — | 126 | — | — | — | 5 |



IP/STAT/1981/B

BREVETS

Demandes de brevets déposées par des non-résidents et brevets
délivrés à des non-résidents, en 1981 répartis selon leur pays d'origineBREVETS
Tableau II

| délivres à des non-résidents, en 1967 (Rapports statistiques) | | | | | | | | | | | | | | | | | | | | | |
|---|----|----|----|-----|-----|----|----|----|----|-----|-----|-----|-----|-----|------|-------|----|--------|-------|-----------------------------|---|
| IP | LI | LU | MX | NL | NZ | NO | PA | PL | RO | ZA | SU | ES | SE | CH | GB | US | YU | Autres | TOTAL | ← Pays d'origine | |
| | | | | | | | | | | | | | | | | | | | | ↓ Pays de délivrance | |
| 4 | | | 2 | 9 | | 1 | | | | 1 | 4 | 14 | 13 | 28 | 21 | 84 | | 4 | 340 | Algérie | |
| 100 | 5 | 6 | 9 | 98 | 3 | 5 | 3 | | | 14 | 2 | 68 | 39 | 234 | 178 | 1337 | 1 | 48 | 3321 | Argentine | |
| 97 | 6 | 2 | 7 | 87 | 2 | 5 | 13 | | | 13 | 7 | 64 | 33 | 164 | 131 | 1175 | 1 | 26 | 2694 | | |
| 1163 | 16 | 32 | 3 | 311 | 164 | 25 | 5 | 2 | | 141 | 50 | 18 | 147 | 334 | 1177 | 4119 | 3 | 56 | 9807 | Australie | |
| 245 | 6 | 9 | 1 | 204 | 58 | 18 | 8 | 4 | | 47 | 28 | 11 | 156 | 241 | 577 | 2636 | 1 | 21 | 5929 | | |
| 216 | 33 | 14 | 3 | 107 | 1 | 8 | 8 | 2 | 3 | 2 | 46 | 17 | 95 | 368 | 97 | 502 | 11 | 7 | 3428 | Autriche | |
| 118 | 28 | 7 | | 169 | | 13 | 7 | 10 | 1 | 2 | 35 | 7 | 97 | 526 | 157 | 568 | 7 | 3 | 4360 | | |
| 1 | | | | | | | | | | | | 1 | | 1 | 7 | 29 | | 3 | 51 | Bahamas | |
| 1 | | | | | | | | | | | | 1 | | 1 | 7 | 29 | | 3 | 51 | | |
| 1 | | | | | | 3 | | | | | | | 1 | | 4 | 12 | | | 28 | Bahrein | |
| 1 | | | 2 | | | 2 | | | | | | | 1 | | 6 | 15 | | | 29 | | |
| 1 | 7 | | | 4 | | | 2 | | | 1 | | | | 17 | 23 | 38 | | 6 | 133 | Bangladesh | |
| 3 | | | | 5 | | | | | | | | | | 7 | 20 | 22 | | 1 | 85 | | |
| 1 | | | | | | | | | | | | | | 12 | 9 | 12 | | 1 | 38 | Barbade | |
| 1 | | | | | | | | | | | | | | 4 | 3 | 11 | | 2 | 22 | | |
| 270 | 28 | 26 | 3 | 208 | 1 | 11 | 1 | 3 | 2 | 8 | 9 | 39 | 82 | 155 | 193 | 1291 | 5 | 12 | 3918 | Belgique | 1 |
| 270 | 28 | 26 | 3 | 208 | 1 | 11 | 1 | 3 | 2 | 8 | 9 | 39 | 82 | 155 | 191 | 1284 | 5 | 12 | 3902 | | |
| 1 | | | 1 | 3 | | | 1 | | | | 1 | 4 | | 3 | 4 | 55 | | 2 | 120 | Bolivia | |
| 2 | 1 | | 2 | | | | | | | 2 | 1 | 8 | | 6 | 4 | 51 | | 11 | 145 | | |
| 364 | 1 | 21 | 4 | 182 | 8 | 17 | | 3 | | 31 | 10 | 39 | 92 | 238 | 268 | 2408 | 3 | 62 | 6113 | Brésil | |
| 6 | | 1 | | 6 | | 1 | 1 | 8 | 1 | | | 1 | 3 | 16 | 23 | 130 | 2 | | 361 | | |
| 4 | 2 | | | 4 | | | | 5 | 1 | | | | 1 | 11 | 18 | 72 | 3 | | 239 | Bulgarie | * |
| | | | | | | | | | | | 305 | | | | | | | | 510 | | |
| | | | | | | | | | | | 98 | | | | | | | | 144 | | |
| | | | | | | | | | | | | | 1 | | | | | | 5 | Burundi | |
| | | | | | | | | | | | | | 1 | | | | | | 5 | | |
| 2228 | 12 | 30 | 21 | 495 | 41 | 73 | | 6 | | 87 | 137 | 38 | 491 | 595 | 1384 | 12938 | 4 | 91 | 23547 | Canada | 2 |
| 1804 | 8 | 14 | 13 | 456 | 24 | 48 | 1 | 25 | | 71 | 146 | 28 | 458 | 532 | 1097 | 12523 | 4 | 34 | 21327 | | |
| 9 | | | 6 | 15 | 3 | 3 | 4 | | | 13 | | 34 | 20 | 58 | 27 | 280 | | 35 | 744 | Chili | |
| 7 | | | 2 | 14 | 1 | 3 | | | | 5 | | 19 | 9 | 73 | 21 | 233 | | 13 | 568 | | |
| 8 | 1 | 1 | 3 | 19 | 1 | 1 | 3 | | | | | 27 | 18 | 19 | 34 | 350 | | 11 | 604 | Colombie | |
| 4 | | | 4 | 3 | | 1 | 1 | | | | | 2 | 5 | 10 | 12 | 108 | | 3 | 201 | | |
| | | | 1 | 4 | | | | | | | | | | 5 | 2 | 66 | | 3 | 91 | Costa Rica | |
| 1 | | | | | | | | | | | | 1 | | | | 18 | | | 20 | | |
| 1 | | | 1 | 2 | | | | | | | 2 | 1 | | 19 | 4 | 3 | | | 58 | Cuba | |
| 2 | | | | | | 1 | | 1 | | 1 | 7 | 2 | | 2 | 3 | | | | 32 | | |
| 2 | | | | | | | | | | | | | 1 | 2 | 8 | 13 | | 1 | 34 | Chypre | |
| 1 | | | | | | | | | | | | | 1 | 1 | 5 | 12 | | 1 | 27 | | |
| 53 | | 3 | | 18 | | 3 | | 25 | 4 | | 3 | 2 | 24 | 108 | 57 | 288 | 7 | 2 | 1282 | | 2 |
| 72 | 1 | 3 | 2 | 14 | | 7 | | 43 | | | 3 | 3 | 34 | 102 | 106 | 247 | 14 | 1 | 1349 | Tchécoslovaquie | * |
| | | | | | | | | | | | 386 | | | | | | | | 737 | | |
| | | | | | | | | 2 | | | 87 | | | | | 1 | | | 211 | | |
| 203 | 15 | 7 | 1 | 243 | 3 | 61 | 5 | 5 | 1 | 6 | 9 | 21 | 344 | 289 | 438 | 1177 | 5 | 28 | 4745 | Danemark | |
| 64 | 5 | 2 | | 59 | | 17 | 3 | | 1 | | 12 | 3 | 109 | 104 | 69 | 302 | 1 | 3 | 1276 | | |
| 3 | | | 3 | 2 | 2 | | 2 | | | | | 9 | 8 | 5 | 3 | 98 | | 1 | 180 | Equateur | |
| 2 | | | | | | | | | | | | 5 | | 1 | | 11 | | 1 | 31 | | |
| 30 | | | 2 | 14 | 6 | 6 | | | | 4 | | 9 | 5 | 33 | 52 | 292 | 1 | 10 | 738 | Egypte | |
| 5 | | 2 | | 2 | | 2 | 2 | | 1 | | | 3 | 10 | 21 | 26 | 85 | | | 249 | | |
| 1 | | | 1 | 6 | | | | | | | | | | 20 | 1 | 52 | | | 107 | El Salvador | |
| | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | | | 1 | | | | | | | | | | 2 | 7 | | 1 | 14 | Fidji | |
| 1 | | | | | 1 | | | | | | | | | | | 2 | | | 5 | | |
| 95 | 10 | 6 | | 83 | | 39 | 3 | 1 | | 3 | 81 | 9 | 423 | 181 | 187 | 664 | 3 | 28 | 2809 | Finlande | |
| 62 | 14 | 3 | 1 | 51 | | 41 | | 1 | 1 | 2 | 33 | 4 | 311 | 85 | 91 | 325 | | 4 | 1559 | | |
| 115 | 43 | 34 | 11 | 431 | 13 | 29 | 9 | 10 | 4 | 26 | 402 | 147 | 332 | 611 | 636 | 3688 | 14 | 68 | 13723 | France | 1 |
| 170 | 16 | 34 | 9 | 631 | 3 | 26 | 10 | 29 | 7 | 27 | 349 | 84 | 338 | 818 | 1006 | 4164 | 5 | 35 | 14622 | | |
| 48 | | 5 | 1 | 51 | | 2 | 3 | 25 | 2 | | 636 | 8 | 19 | 96 | 51 | 266 | 7 | 3 | 2177 | Rép. démocratique allemande | |
| 36 | 5 | 1 | 3 | 40 | 3 | 5 | 9 | 44 | 7 | | 142 | 4 | 17 | 101 | 63 | 270 | 7 | 4 | 1734 | | |



IP/STAT/1981/B

PATENTS

PATENTS
Part IbPatent applications filed by and patents granted to
non-residents in 1981, broken down according to the country of origin

| Country of origin → | AR | AU | AT | BS | BE | BR | BG | CA | CS | DK | FI | FR | DD | DE | GR | HU | IN | IE | IL | IT |
|--|---------|-----------|------------|--------|------------|---------|---------|-----------|-----------|-----------|-----------|-------------|-----------|--------------|--------|-----------|--------|---------|---------|----------|
| Reporting country ↓ | | | | | | | | | | | | | | | | | | | | |
| Germany (Federal Republic of) ¹ | 12 1 | 72 19 | 450 131 | — — | 89 40 | — — | — — | 119 56 | 121 31 | 125 54 | — — | 877 629 | 609 47 | — — | — — | 185 52 | — — | 12 4 | 58 3 | 75 17 |
| Ghana | — | — | — | — | — | — | — | — | — | 1 | — | — | — | 2 | — | — | — | — | — | — |
| Greece | — | 8 12 | 17 16 | 1 1 | 33 21 | 3 1 | 3 10 | 5 4 | 1 — | 13 4 | 9 6 | 185 146 | 5 3 | 323 187 | — — | 47 31 | — 1 | 1 1 | 5 7 | 11 10 |
| Gt. Brit. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Hong Kong | — | 3 3 | — | — | 4 4 | — | — | — | — | 3 6 | — | 13 11 | — | 57 54 | — | 1 — | — | — | — | — |
| Hungary | — | 1 | 27 43 | — | 11 6 | 1 — | 21 4 | 6 2 | 25 18 | 3 2 | 11 6 | 105 53 | 175 63 | 389 213 | — | — | — | — | — | — |
| Iceland | — | — | — | — | 2 1 | — | — | 1 1 | — | 4 1 | 3 1 | 2 1 | — | 9 2 | — | — | — | 1 | — | — |
| India | 1 — | 32 5 | 18 9 | — 1 | 16 7 | — 1 | 5 2 | 22 11 | 1 1 | 16 2 | 9 2 | 122 59 | — | 236 149 | 2 — | 24 18 | — | 4 — | 2 1 | 9 3 |
| Iraq | — | — | — | — | 2 1 | — | — | 1 — | — | 2 — | — | 32 10 | — | 12 3 | — | 4 1 | 2 — | — | — | — |
| Ireland | 2 — | 24 10 | 5 1 | — 2 | 17 17 | — | — | 17 8 | — | 34 22 | 6 5 | 195 179 | — | 294 216 | 2 — | 8 4 | — | — | 4 5 | — |
| Israel | 1 — | 11 10 | 5 8 | — — | 17 7 | 2 1 | — | 16 3 | 1 — | 7 5 | 5 — | 113 72 | — | 380 247 | 2 — | 36 18 | — | — | — | — |
| Japan ⁶ | 11 — | 150 42 | 218 68 | 4 — | 138 46 | 11 3 | 29 3 | 270 75 | 46 31 | 93 48 | 100 30 | 1624 473 | 122 6 | 5797 1460 | 6 1 | 121 35 | 6 3 | 8 2 | 50 5 | 51 1 |
| Jordan | — | — | 4 | — | 1 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Kenya | — | — | — | 1 | — | — | — | — | — | 1 | — | 1 | — | 9 | — | — | — | — | — | — |
| Luxembourg ¹ | — | 3 4 | 5 7 | — — | 133 111 | — | — | 1 2 | — | 6 3 | 2 3 | 112 124 | — | 97 98 | — | 13 9 | — | — | — | — |
| Malawi | — | 1 2 | — | — | — | — | — | — | — | — | — | — | 2 | 4 | — | — | 1 | — | — | — |
| Mali | — | — | — | — | — | — | — | — | — | — | — | 2 | — | — | — | — | — | — | — | — |
| Malta | — | — | 1 | — | — | — | — | — | — | — | 1 | 2 | — | 3 | — | — | — | — | — | — |
| Mauritius | — | 1 1 | — | — | — | — | — | — | — | — | — | 1 | — | 2 1 | — | — | 1 | — | — | — |
| Mexico [*] | 11 5 | 45 17 | 18 16 | 2 1 | 16 7 | 13 3 | 4 — | 57 16 | 1 1 | 15 3 | 25 5 | 266 116 | — | 392 168 | 3 1 | 25 1 | 1 — | 3 4 | 23 3 | 1 — |
| Mexico | — | — | 2 | — | 2 3 | — | 1 — | 6 3 | — | — | — | 40 43 | — | 52 61 | — | — | — | — | — | — |
| Mexico | — | — | — | — | 1 1 | — | — | 1 — | — | — | — | 10 18 | — | — | — | — | 1 | — | — | — |
| Morocco | 1 1 | 1 — | 1 3 | — — | 8 10 | — 1 | — — | 4 1 | — | — | 3 2 | 98 89 | — | 28 37 | — | 2 3 | — | — | — | — |
| Netherlands ¹ | — | 14 7 | 32 26 | 3 3 | 65 31 | 3 — | 6 1 | 36 16 | 13 2 | 49 24 | 23 2 | 287 249 | 36 6 | 791 564 | 1 2 | 72 11 | — | 3 3 | 12 — | 1 — |
| New Zealand | — | 245 1 | 6 131 | — 1 | 21 9 | — — | — — | 21 21 | — | 16 7 | 5 4 | 77 66 | — | 160 112 | — | 8 1 | 1 — | 8 2 | 7 2 | — |
| Norway | 1 — | 17 5 | 31 14 | — 2 | 32 15 | 5 — | 4 6 | 45 29 | 2 1 | 89 54 | 98 46 | 258 146 | 6 — | 599 245 | 1 — | 35 7 | — | 6 — | 2 — | 1 — |
| OAPI | — | 2 | 1 | — | 2 | — | — | 1 | — | — | — | 141 | — | 15 | — | 1 | — | — | — | — |
| Panama | — | 1 | — | — | 8 | — | — | — | — | — | — | 1 | — | 1 | — | — | — | — | 1 | — |
| Paraguay | 11 4 | — 1 | — — | — — | — — | 11 5 | — — | — — | — — | 2 — | — — | 7 3 | — | 4 9 | — | — 3 | — | — | — | — |
| Peru | 5 3 | 1 5 | 1 2 | — — | 3 3 | 8 2 | — — | 10 8 | — — | 2 — | 10 3 | 20 18 | — | 31 33 | — | 4 7 | — | 1 — | 2 — | — |



IP/STAT/1981/B

BREVETS

Demandes de brevets déposées par des non-résidents et brevets
délivrés à des non-résidents, en 1981 répartis selon leur pays d'origineBREVETS
Tableau I

| IP | LI | LU | MX | NL | NZ | NO | PA | PL | RO | ZA | SU | ES | SE | CH | GB | US | YU | ** Autres | TOTAL | ← Pays d'origine | |
|------|----|----|----|-----|----|----|----|----|----|----|-----|-----|-----|------|------|-------|----|--------------|-------|---|--|
| | | | | | | | | | | | | | | | | | | | | ↓ Pays de délivrance | |
| 4945 | 83 | 34 | — | 471 | — | 45 | — | — | — | 35 | 349 | 96 | 486 | 1256 | 712 | 4374 | — | 358 | 16738 | Allemagne (Rép. fédérale d') ¹ | |
| 1541 | 30 | 14 | — | 343 | — | 17 | — | — | — | 10 | 239 | 17 | 187 | 534 | 372 | 2229 | — | 114 | 6892 | | |
| 2 | — | — | — | 1 | — | — | — | — | — | — | — | — | — | 2 | 4 | 5 | — | 2 | 19 | Ghana | |
| 2 | — | — | — | 1 | — | — | — | — | — | — | — | — | — | 2 | 4 | 5 | — | 2 | 19 | | |
| 25 | 5 | — | 3 | 75 | 1 | 5 | — | 4 | — | 6 | 4 | 18 | 29 | 116 | 180 | 618 | 2 | 6 | 1881 | Grèce | |
| 25 | 8 | 1 | 1 | 39 | 1 | 4 | 1 | 2 | 1 | 12 | 8 | 17 | 12 | 66 | 73 | 326 | 1 | 10 | 1164 | | |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | 9 | — | — | — | Haiti | |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 14 | | |
| 125 | — | — | — | 17 | 2 | 1 | 2 | — | — | 3 | — | 1 | 4 | 42 | 101 | 231 | — | 5 | 637 | Hong-Kong | |
| 120 | — | — | — | 15 | 2 | 1 | — | — | — | 3 | — | 1 | 6 | 38 | 103 | 247 | — | 5 | 632 | | |
| 82 | 5 | 1 | — | 39 | 1 | 2 | 3 | 20 | 2 | — | 43 | 3 | 21 | 117 | 62 | 302 | 4 | 1 | 1528 | Hongrie | |
| 30 | 2 | 2 | — | 16 | — | 5 | 1 | 14 | 2 | 1 | 40 | 2 | 27 | 68 | 55 | 117 | — | — | 840 | | |
| 2 | — | 3 | — | — | — | 16 | — | — | — | — | — | 1 | 4 | 10 | 2 | 14 | 1 | 4 | 79 | Islande | |
| 2 | — | — | — | — | — | 2 | — | — | — | 1 | 1 | — | 2 | 4 | — | 7 | — | — | 28 | | |
| 96 | 1 | 3 | 3 | 62 | 4 | 12 | 3 | 5 | — | 7 | 57 | 14 | 27 | 68 | 234 | 610 | 1 | 24 | 1834 | Inde | |
| 30 | — | 8 | — | 30 | — | 3 | — | 3 | — | 1 | 33 | 2 | 17 | 43 | 114 | 285 | — | 7 | 870 | | |
| 9 | — | — | 2 | 3 | — | 1 | — | 1 | — | — | — | 1 | 12 | — | 4 | 4 | — | — | 107 | Irak | |
| — | — | — | — | 1 | — | — | — | 1 | — | — | 4 | 2 | 1 | 4 | 7 | 3 | — | — | 45 | | |
| 115 | 8 | 3 | — | 102 | 6 | 13 | 3 | — | — | 3 | 6 | 13 | 54 | 150 | 498 | 978 | 1 | 14 | 2649 | Irlande | |
| 17 | 11 | 9 | — | 48 | 4 | 5 | 1 | — | — | 6 | 3 | 2 | 31 | 73 | 203 | 370 | — | 7 | 1315 | | |
| 37 | 15 | — | — | 67 | 1 | 4 | 3 | — | — | 17 | — | 16 | 12 | 196 | 130 | 961 | — | 7 | 2132 | Israël | |
| 16 | — | 6 | — | 15 | — | 1 | — | — | — | 9 | — | 3 | 8 | 83 | 128 | 569 | — | 2 | 1241 | | |
| — | 41 | 45 | 14 | 883 | 32 | 37 | 24 | 15 | 2 | 49 | 249 | 53 | 467 | 1169 | 1556 | 10290 | 13 | 360 | 24686 | Japon ⁶ | |
| — | 21 | 5 | 3 | 390 | 5 | 15 | 7 | 15 | 4 | 7 | 233 | 14 | 229 | 446 | 492 | 4371 | 1 | 80 | 8824 | | |
| 1 | — | — | — | 1 | — | 1 | — | — | — | 1 | — | — | 1 | — | 21 | 20 | — | 9 | 91 | Jordanie | |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | | |
| 2 | — | — | — | 1 | — | 2 | — | — | — | — | — | — | — | 7 | 19 | 27 | — | 3 | 75 | Kenya | |
| 2 | — | — | — | 1 | — | 2 | — | — | — | — | — | — | — | 7 | 19 | 27 | — | 3 | 75 | | |
| 20 | 2 | — | 1 | 17 | — | 1 | — | — | 1 | 1 | 2 | 9 | 3 | 28 | 36 | 158 | 3 | 3 | 708 | Luxembourg ¹ | |
| 15 | 2 | — | — | 17 | — | 2 | — | — | — | 1 | 1 | 10 | 5 | 37 | 39 | 168 | 5 | 5 | 745 | | |
| — | 1 | — | — | 1 | — | — | — | — | — | 7 | — | — | — | 5 | 10 | 7 | 1 | 2 | 41 | Malawi | |
| — | — | — | — | — | — | — | — | — | — | 4 | — | — | — | 3 | 5 | 7 | — | — | 32 | | |
| — | — | — | — | 1 | — | — | — | — | — | — | — | — | — | — | — | 1 | — | 2 | 7 | Mali | |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | | |
| — | — | — | — | — | — | — | — | — | — | — | — | 1 | — | 3 | 4 | 3 | — | 2 | 17 | Malte | |
| — | — | — | — | — | — | — | — | — | — | 1 | — | — | 2 | 4 | 4 | 1 | — | — | 19 | | |
| — | — | — | — | — | — | — | — | — | — | 2 | — | — | — | — | 2 | 8 | — | 2 | 19 | Maurice | |
| — | — | — | — | — | — | — | — | — | — | 2 | — | — | — | — | 2 | 1 | — | 1 | 8 | | |
| 201 | 10 | 7 | — | 65 | 3 | 22 | 19 | — | 1 | 10 | 23 | 111 | 65 | 107 | 174 | 2716 | 1 | 17 | 4624 | | |
| 53 | 19 | 5 | — | 45 | — | 4 | 8 | — | — | 1 | 10 | 30 | 45 | 59 | 73 | 1225 | — | 11 | 2022 | Mexique | |
| — | — | — | — | 19 | — | — | 1 | — | — | — | — | — | 2 | 28 | 28 | 362 | — | 2 | 608 | | |
| 54 | — | — | — | 10 | — | — | 4 | — | — | — | 1 | 6 | 5 | 31 | 21 | 326 | 1 | 2 | 593 | | |
| 1 | — | — | — | — | — | — | — | — | — | — | — | 2 | — | 30 | 5 | 4 | — | 2 | 56 | Monaco | |
| — | — | — | — | — | — | — | — | 1 | — | 1 | — | — | 1 | 28 | 2 | 4 | — | — | 59 | | |
| — | — | — | — | 7 | — | 2 | — | — | — | 1 | — | 24 | 1 | 16 | 11 | 72 | — | 4 | 299 | Maroc | |
| 4 | — | — | 1 | 9 | — | 1 | — | — | — | — | — | 14 | 3 | 12 | 12 | 64 | — | 5 | 281 | | |
| 500 | 20 | 18 | 3 | — | 3 | 21 | 1 | 1 | 1 | 6 | 21 | 27 | 117 | 184 | 186 | 1357 | 7 | 15 | 4228 | Pays-Bas ¹ | |
| 328 | 13 | 3 | 1 | — | 2 | 12 | 3 | 7 | — | 3 | 32 | 6 | 58 | 162 | 142 | 868 | — | 1 | 2661 | | |
| 85 | 1 | — | — | 76 | — | 15 | 4 | — | — | 19 | 1 | 5 | 52 | 144 | 444 | 940 | 2 | 19 | 2424 | Nouvelle-Zélande | |
| 52 | 2 | 2 | — | 44 | — | 1 | 2 | 3 | — | 6 | 2 | 3 | 24 | 113 | 266 | 513 | — | 9 | 1435 | | |
| 192 | 11 | 7 | 2 | 143 | 3 | — | 5 | 4 | — | 2 | 13 | 22 | 435 | 202 | 340 | 1116 | 4 | 23 | 3785 | Norvège | |
| 67 | 10 | 2 | 1 | 73 | — | — | 4 | 2 | 1 | 2 | 11 | 5 | 239 | 94 | 121 | 404 | — | 2 | 1668 | | |
| 2 | 1 | — | — | 3 | — | 2 | — | — | — | — | — | 4 | 6 | 14 | 18 | 59 | — | 1 | 278 | OAPI | |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | | |
| — | — | — | — | — | — | 1 | — | — | — | 1 | — | 2 | — | 3 | 6 | 57 | 1 | 4 | 90 | Panama | |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3 | 1 | 12 | — | — | 22 | | |
| — | — | — | — | 5 | 1 | — | — | — | — | — | — | 4 | — | 3 | 1 | 28 | — | 6 | 85 | Paraguay | |
| — | 1 | — | — | 1 | 1 | — | — | — | — | — | — | 1 | — | — | — | 15 | — | 1 | 49 | | |
| — | — | — | 6 | 8 | — | 2 | 4 | — | — | 2 | — | 21 | 12 | 5 | 18 | 157 | — | 14 | 375 | Pérou | |
| 12 | 1 | — | 9 | 7 | 1 | 2 | 1 | 2 | — | 3 | — | 6 | 6 | 12 | 16 | 128 | — | 8 | 313 | | |



IP/STAT/1981/B

PATENTS

PATENTS
Chart 1b

Patent applications filed by and patents granted to
non-residents in 1981, broken down according to the country of origin

| Country of origin → | AR | AU | AT | BS | BE | BR | BG | CA | CS | DK | FI | FR | DD | DE | GR | HU | IN | IE | IL | IT |
|-----------------------------|----|-----|-----|----|-----|----|----|------|-----|-----|-----|------|-----|------|----|-----|----|----|-----|------|
| Reporting country ↓ | | | | | | | | | | | | | | | | | | | | |
| Philippines | 2 | 40 | 11 | — | 17 | — | — | 18 | — | 2 | 5 | 62 | — | 152 | — | 9 | 4 | — | 4 | 4 |
| | — | 17 | — | 1 | 4 | — | — | 10 | — | 4 | 3 | 43 | — | 66 | — | — | — | — | — | 1 |
| Poland | — | 5 | 29 | 1 | 16 | 1 | 9 | 10 | 14 | 8 | 15 | 63 | 42 | 232 | — | 109 | — | — | — | 4 |
| | — | 1 | 42 | 3 | 10 | — | 2 | 7 | 18 | 7 | 7 | 86 | 37 | 307 | — | 84 | — | 1 | — | 4 |
| Portugal | 1 | 7 | 13 | — | 34 | 1 | — | 8 | 1 | 11 | 9 | 226 | — | 276 | 1 | 27 | — | 3 | 3 | 11 |
| | 1 | 8 | 10 | — | 25 | 4 | 1 | 4 | — | 11 | 3 | 245 | — | 247 | — | 22 | — | 1 | 3 | 9 |
| Republic of Korea | 1 | 29 | 6 | 4 | 15 | 2 | — | 25 | — | 12 | 4 | 167 | — | 275 | 1 | — | — | 3 | 4 | 7 |
| | — | 4 | 2 | — | 12 | — | — | 6 | — | 1 | — | 68 | — | 137 | — | — | — | — | — | 3 |
| Romania | — | 2 | 8 | 1 | 8 | 1 | 11 | 4 | 14 | 2 | 9 | 60 | 63 | 109 | — | 43 | — | 1 | 1 | 2 |
| | — | 3 | 33 | 1 | 8 | — | 10 | 13 | 15 | 8 | 5 | 95 | 93 | 282 | — | 50 | — | — | 1 | 5 |
| Rwanda ² | — | — | — | — | — | — | — | — | — | — | — | 3 | — | — | — | — | — | — | — | — |
| | — | — | — | — | — | — | — | — | — | — | — | 3 | — | — | — | — | — | — | — | — |
| Saint Lucia | — | — | — | — | — | — | — | — | — | 1 | — | — | — | 2 | — | — | — | — | — | — |
| | — | — | — | — | — | — | — | — | — | 1 | — | — | — | 2 | — | — | — | — | — | — |
| Seychelles | — | — | — | — | — | — | — | — | — | — | — | — | — | 2 | — | — | — | — | — | — |
| | — | — | — | — | — | — | — | — | — | — | — | — | — | 2 | — | — | — | — | — | — |
| Sierra Leone | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | — | 1 | — | — | — | — | — | — | — | 1 | — | 1 | — | 1 | — | — | — | — | — | — |
| Somalia | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | — | — | — | — | 2 | — | — | 3 | — | — | — | 6 | — | 10 | 2 | 1 | — | — | — | 6 |
| South Africa | 4 | 145 | 43 | 5 | 45 | 10 | — | 81 | — | 30 | 22 | 300 | — | 970 | 2 | 16 | — | 2 | 51 | 12 |
| | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Soviet Union * | — | 8 | 50 | — | 16 | 2 | — | 19 | — | 14 | 67 | 233 | — | 540 | — | 169 | 2 | 3 | 1 | 115 |
| | 1 | 4 | 25 | — | 8 | 1 | 1 | 13 | — | 7 | 34 | 174 | 2 | 377 | — | 81 | — | 1 | — | 76 |
| | — | — | — | — | — | — | 58 | — | 116 | — | — | 2 | 470 | 5 | — | 11 | — | — | — | — |
| | — | — | — | — | — | — | 25 | — | 33 | — | — | — | 160 | — | — | 2 | — | — | — | — |
| Spain | 9 | 43 | 74 | 5 | 80 | 5 | 7 | 46 | 7 | 37 | 33 | 1184 | — | 1678 | 7 | 64 | 1 | 7 | 29 | 49 |
| | 4 | 30 | 61 | 1 | 45 | 2 | 7 | 38 | 6 | 25 | 22 | 902 | — | 1244 | 1 | 65 | — | 8 | 9 | 35 |
| Sri Lanka | — | — | — | — | — | — | — | — | — | — | — | 1 | — | 14 | — | 4 | 6 | 2 | — | 2 |
| | — | 3 | — | — | 1 | — | — | — | — | — | — | 2 | — | 10 | — | 2 | — | — | — | 3 |
| Sweden ¹ | — | 23 | 40 | 3 | 23 | 7 | 5 | 51 | 19 | 78 | 180 | 161 | 58 | 762 | — | 72 | — | 2 | 13 | 16 |
| | — | 25 | 48 | 4 | 18 | 1 | — | 40 | 21 | 61 | 73 | 292 | 21 | 782 | — | 26 | — | 1 | 3 | 79 |
| Switzerland | 4 | 15 | 182 | — | 23 | 5 | 6 | 18 | 38 | 25 | 12 | 311 | 96 | 1481 | — | 90 | 2 | 1 | 10 | 25 |
| | — | 19 | 118 | 1 | 64 | — | 2 | 21 | 29 | 39 | 13 | 703 | 12 | 2598 | — | 40 | — | 2 | 10 | 227 |
| Syria | — | — | — | — | — | — | — | — | — | — | — | 11 | 4 | 7 | — | 4 | — | — | — | 17 |
| | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Thailand | — | 8 | — | — | 5 | — | — | 1 | — | — | — | 4 | — | 23 | — | 7 | — | 1 | — | 8 |
| | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Tunisia | — | — | 1 | — | 8 | — | — | 1 | — | — | — | 72 | — | 14 | — | 1 | — | — | — | 18 |
| | — | 4 | — | 5 | — | — | — | — | — | — | — | 61 | — | 16 | — | 3 | — | — | — | 13 |
| Turkey | — | 2 | 7 | — | 5 | — | — | 1 | — | 3 | 2 | 27 | — | 70 | — | 4 | — | — | — | 32 |
| | — | 1 | 2 | — | 2 | — | — | 4 | — | 1 | — | 24 | — | 75 | — | 3 | — | — | — | 11 |
| Uganda | — | — | — | — | 1 | — | — | — | — | — | — | 4 | — | 3 | — | 1 | — | — | — | 3 |
| | — | — | — | — | 1 | — | — | — | — | — | — | 4 | — | 3 | — | 1 | — | — | — | 3 |
| United Kingdom ¹ | 6 | 207 | 143 | 16 | 167 | 7 | 13 | 291 | 60 | 143 | 92 | 802 | 153 | 2705 | — | 117 | 14 | 57 | 46 | 646 |
| | 4 | 128 | 104 | 6 | 128 | 4 | 11 | 175 | 40 | 134 | 59 | 1148 | 49 | 3597 | 4 | 54 | 5 | 53 | 41 | 476 |
| United States of America | 55 | 597 | 449 | 4 | 391 | 66 | 30 | 2202 | 82 | 243 | 275 | 3237 | 96 | 9924 | 22 | 212 | 22 | 63 | 317 | 1384 |
| | 25 | 318 | 279 | 8 | 262 | 23 | 27 | 1135 | 41 | 130 | 140 | 2181 | 52 | 6250 | 5 | 98 | 6 | 17 | 123 | 883 |
| Uruguay | 15 | — | — | — | 3 | 5 | — | — | — | 1 | — | 8 | — | 18 | — | 9 | — | — | 1 | 29 |
| | 16 | 1 | 1 | — | 2 | 4 | — | — | — | 3 | — | 8 | — | 14 | — | 11 | — | — | — | 9 |
| Venezuela | 8 | 7 | 5 | 1 | 9 | 4 | 1 | 33 | — | 4 | 3 | 98 | 1 | 142 | 1 | 15 | 1 | 3 | 4 | 112 |
| | 2 | 5 | 3 | — | 6 | 5 | — | 11 | — | 1 | 1 | 58 | — | 56 | — | 1 | — | — | — | 51 |
| Democratic Yemen | — | — | — | — | — | — | — | — | — | — | — | — | — | 2 | — | — | — | — | — | — |
| | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Yugoslavia | — | 13 | 32 | 1 | 15 | — | 7 | 8 | 11 | 3 | 10 | 121 | 69 | 369 | 1 | 96 | — | 1 | 1 | 101 |
| | — | 1 | 28 | 1 | 5 | — | 1 | 2 | 9 | 8 | 3 | 53 | 7 | 202 | — | 31 | — | — | — | 95 |
| Zaire | — | — | — | — | 9 | — | — | — | — | — | 1 | 8 | — | 6 | — | — | — | — | — | 3 |
| | — | — | — | — | 9 | — | — | — | — | — | 1 | 8 | — | 6 | — | — | — | — | — | 3 |
| Zambia | — | 3 | — | — | 4 | — | — | 4 | — | — | 6 | 2 | — | 3 | — | — | — | — | — | 8 |
| | — | 4 | — | 2 | 1 | — | — | 1 | — | — | 1 | 5 | — | 3 | — | — | — | — | — | 4 |



IP/STAT/1981/B

BREVETS

Demandes de brevets déposées par des non-résidents et brevets
délivrés à des non-résidents, en 1981 répartis selon leur pays d'origineBREVETS
Tableau II

| | LU | UU | MX | NL | NZ | NO | PA | PL | RO | ZA | SU | ES | SE | CH | GB | US | YU | * Autres | TOTAL | ← Pays d'origine |
|----|-----|----|----|------|-----|-----|----|----|----|-----|-----|-----|------|------|------|------|----|-------------|-------|-----------------------|
| | | | | | | | | | | | | | | | | | | | | ↓ Pays de délivrance |
| 1 | | 1 | | 25 | 3 | 8 | — | — | — | 3 | — | 3 | 42 | 71 | 90 | 709 | — | 25 | 1514 | Philippines |
| 2 | | | 2 | 18 | 1 | 4 | 10 | — | — | 2 | — | 1 | 2 | 62 | 50 | 316 | — | 8 | 718 | |
| 3 | 1 | 8 | 1 | 31 | — | 4 | 3 | — | 2 | 1 | 13 | 2 | 24 | 73 | 64 | 336 | 5 | 1 | 1188 | Pologne |
| 4 | 7 | 8 | — | 43 | 1 | 14 | 7 | — | — | — | 40 | 2 | 47 | 99 | 82 | 362 | 1 | 1 | 1409 | |
| 5 | 5 | 7 | 1 | 71 | 1 | 12 | 6 | 3 | 2 | 6 | 2 | 76 | 36 | 128 | 185 | 520 | 4 | 6 | 1843 | Portugal |
| 6 | 7 | 7 | — | 63 | 2 | 2 | 10 | 1 | — | 4 | 1 | 51 | 17 | 150 | 117 | 392 | 4 | 9 | 1540 | |
| 7 | 4 | 2 | 2 | 88 | 4 | 5 | 8 | — | — | 6 | — | 6 | 49 | 115 | 119 | 1378 | — | 43 | 3984 | République de Corée |
| 8 | — | — | — | 20 | — | — | 6 | — | — | — | — | 2 | 8 | 60 | 61 | 438 | — | 5 | 1576 | |
| 9 | 2 | 2 | 2 | 12 | — | 4 | 1 | 9 | — | — | 9 | 1 | 5 | 24 | 26 | 211 | 2 | 2 | 681 | Roumanie |
| 10 | 9 | 1 | — | 16 | — | 1 | 4 | 38 | — | 1 | 52 | 8 | 11 | 45 | 37 | 331 | 4 | 1 | 1276 | |
| 11 | — | 1 | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | — | 2 | 7 | Rwanda 2 |
| 12 | — | 1 | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | — | 2 | 7 | |
| 13 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | 5 | — | — | 10 | Sainte-Lucie |
| 14 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | 5 | — | — | 10 | |
| 15 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | 2 | — | — | 7 | Seychelles |
| 16 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | 2 | — | — | 7 | |
| 17 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | Sierra Leone |
| 18 | — | — | — | — | — | — | — | — | — | — | — | — | — | 4 | 6 | 6 | — | 2 | 23 | |
| 19 | — | — | 1 | — | — | — | — | — | — | — | — | 1 | — | — | — | 40 | — | 1 | — | Somalie |
| 20 | 16 | 32 | 4 | 123 | 19 | 15 | 6 | — | — | — | — | 16 | 75 | 347 | 933 | 2051 | 2 | 9 | 5694 | Afrique du Sud |
| 21 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| 22 | 6 | 13 | 3 | 65 | 1 | 15 | 9 | 31 | 3 | 1 | — | 12 | 90 | 163 | 123 | 562 | 8 | 16 | 2590 | |
| 23 | 7 | 11 | — | 32 | — | 7 | 12 | 18 | 1 | 1 | — | 2 | 81 | 138 | 98 | 349 | 8 | 3 | 1715 | |
| 24 | — | — | — | 3 | — | — | — | 1 | — | — | — | — | — | — | — | 10 | — | 1 | 682 | Union soviétique * |
| 25 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| 26 | 22 | 19 | 5 | 345 | 2 | 26 | 8 | 5 | 4 | 19 | 17 | — | — | — | — | 2 | 2 | — | 227 | |
| 27 | 12 | 12 | 11 | 262 | 5 | 17 | 8 | 5 | 3 | 10 | 14 | — | 155 | 494 | 646 | 2457 | 6 | 37 | 8509 | Espagne |
| 28 | — | — | — | 7 | — | 1 | — | — | — | — | — | — | 89 | 405 | 413 | 1724 | 4 | 23 | 6140 | |
| 29 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| 30 | — | — | — | 2 | — | — | — | — | — | — | — | — | — | 6 | 10 | 12 | 1 | 1 | 58 | Sri Lanka |
| 31 | 20 | 13 | 2 | 114 | 2 | 62 | — | 3 | 1 | 11 | 155 | 32 | — | 199 | 186 | 1151 | 7 | 13 | 3968 | Suède 1 |
| 32 | 22 | 12 | 2 | 175 | 2 | 28 | 2 | 7 | — | 6 | 85 | 9 | — | 236 | 210 | 1059 | 4 | 6 | 3561 | |
| 33 | 112 | 14 | 3 | 96 | 1 | 9 | 10 | 3 | — | 9 | 49 | 31 | 101 | — | 156 | 818 | 13 | 12 | 4430 | Suisse |
| 34 | 76 | 19 | 1 | 236 | — | 14 | 8 | 5 | 6 | 9 | 71 | 18 | 160 | — | 303 | 1171 | 6 | 7 | 6381 | |
| 35 | — | — | — | 2 | — | 1 | — | — | — | — | — | — | — | 7 | 9 | 12 | 1 | 1 | 76 | Syrie |
| 36 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| 37 | — | — | 2 | 6 | 1 | — | — | — | — | — | — | — | 3 | 21 | 28 | 121 | — | 8 | 304 | Thaïlande |
| 38 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| 39 | — | — | — | 5 | — | 1 | — | — | — | — | — | 5 | 5 | 16 | 10 | 25 | — | — | 183 | Tunisie |
| 40 | — | — | 3 | 7 | — | 3 | 1 | — | — | — | — | 4 | — | 12 | 5 | 13 | — | 1 | 152 | |
| 41 | 2 | — | — | 17 | — | 2 | — | — | — | — | 7 | 4 | 5 | 24 | 27 | 123 | — | — | 368 | Turquie |
| 42 | 3 | — | — | 7 | — | — | 1 | — | 1 | — | 1 | 1 | 1 | 18 | 23 | 63 | — | — | 254 | |
| 43 | — | — | — | — | — | — | — | — | — | — | — | — | — | 7 | 17 | 16 | — | 2 | 55 | Ouganda |
| 44 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 17 | 16 | — | — | 55 | |
| 45 | — | — | 2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| 46 | 56 | 36 | 15 | 592 | 69 | 74 | 9 | 17 | 6 | 87 | 171 | 103 | 415 | 819 | — | 5962 | 15 | 424 | 18406 | Royaume-Uni 1 |
| 47 | 52 | 38 | 8 | 727 | 38 | 63 | 6 | 17 | 8 | 48 | 110 | 46 | 431 | 873 | — | 6234 | 5 | 129 | 16848 | |
| 48 | 18 | 51 | 99 | 1077 | 119 | 133 | 1 | 49 | 13 | 213 | 417 | 147 | 1191 | 1828 | 4294 | — | 28 | 651 | 44009 | Etats-Unis d'Amérique |
| 49 | 20 | 27 | 42 | 641 | 47 | 93 | — | 38 | 10 | 111 | 373 | 58 | 766 | 1239 | 2473 | — | 8 | 206 | 26545 | |
| 50 | — | — | — | 8 | 1 | — | 1 | — | — | — | — | 7 | 1 | 32 | 12 | 73 | — | 2 | 227 | Uruguay |
| 51 | — | — | — | 2 | 1 | 1 | 1 | — | — | 2 | — | 6 | — | 17 | 9 | 48 | — | — | 158 | |
| 52 | 1 | 1 | 9 | 38 | 4 | 9 | 6 | — | — | 1 | 7 | 71 | 31 | 102 | 93 | 1082 | — | 28 | 1980 | Venezuela |
| 53 | 2 | 4 | 1 | 13 | — | 1 | 1 | 1 | — | 2 | — | 56 | 13 | 42 | 40 | 363 | — | 4 | 755 | |
| 54 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3 | Yémen démocratique |
| 55 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| 56 | 6 | 3 | 3 | 37 | 1 | 5 | 5 | 11 | 3 | — | 62 | 4 | 20 | 170 | 79 | 441 | — | 4 | 1734 | Yougoslavie |
| 57 | 6 | 1 | — | 14 | — | 3 | 1 | 4 | 2 | — | 21 | 1 | 23 | 58 | 27 | 116 | — | — | 741 | |
| 58 | — | — | — | — | — | — | — | — | — | — | — | — | — | 3 | 9 | 34 | — | 1 | 74 | Zaire |
| 59 | — | — | — | — | — | — | — | — | — | — | — | — | — | 3 | 9 | 33 | — | 1 | 73 | |
| 60 | — | — | — | 1 | — | 1 | — | — | — | 20 | — | — | 2 | 1 | 24 | 28 | — | — | 107 | Zambie |
| 61 | — | — | — | 1 | — | 1 | — | — | — | 9 | — | — | 2 | 1 | 12 | 19 | — | 1 | 68 | |



IP/STAT/1981/B

PATENTS

PATENTS
Chart 1b

Patent applications filed by and patents granted to
non-residents in 1981, broken down according to the country of origin

| Country of origin → | AR | AU | AT | BS | BE | BR | BG | CA | CS | DK | FI | FR | DD | DE | GR | HU | IN | IE | IL | IS |
|---------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Reporting country ↓ | | | | | | | | | | | | | | | | | | | | |
| Zimbabwe | 1 | 8 | 1 | 2 | 2 | 1 | — | 3 | — | — | 4 | 14 | — | 18 | — | 2 | — | — | — | 1 |
| | — | 4 | 1 | — | — | 1 | — | 4 | — | — | 1 | 16 | — | 20 | — | — | — | — | — | — |



IP/STAT/1981/B

BREVETS

Demandes de brevets déposées par des non-résidents et brevets
délivrés à des non-résidents, en 1981 répartis selon leur pays d'origine

BREVETS
Tableau I

| delivres a des non-residents, en 1981 (raparts communautaires) | | | | | | | | | | | | | | | | | | | | | |
|--|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---------------------|-------|----------------------|--|
| JP | LI | LU | MX | NL | NZ | NO | PA | PL | RO | ZA | SU | ES | SE | CH | GB | US | YU | ** Others/Autres | TOTAL | ← Pays d'origine | |
| | | | | | | | | | | | | | | | | | | | | ↓ Pays de delivrance | |
| 2 | — | 2 | — | 5 | — | 3 | 1 | — | — | 43 | — | — | 9 | 26 | 54 | 60 | 1 | 3 | 274 | Zimbabwe | |
| — | — | — | — | 4 | 1 | — | — | — | — | 59 | — | — | 4 | 14 | 76 | 57 | — | 3 | 274 | | |

SOURCE:

Industrial Property Statistics
1981 in the form of Summary
Tables. W.I.P.O., Geneva, 1983
IP/STAT/1981/B
PP. 8-9, 18-19, 10-17



IP/STAT/1980/B

PATENTS/BREVETS

Patent applications filed and patents granted during 1980
Demandes et délivrances de brevets au cours de 1980

PATENTS
Chart 1a

BREVETS
Table

| COUNTRIES PAYS | Applications for patents filed by Demandes de brevets déposées par des | | | Grants of patents to Brevets délivrés à des | | | Country Code des |
|---|---|------------------------------------|--------------|--|------------------------------------|--------------|-------------------------|
| | Residents Résidents | Non-residents Non-résidents | Total | Residents Résidents | Non-residents Non-résidents | Total | |
| | | | | | | | |
| Algeria/Algérie * | — 5 | 349 — | 349 5 | — — | — — | — — | DZ |
| Argentina/Argentine | 1259 | 3063 | 4332 | 1590 | 2980 | 4570 | AR |
| Australia/Australie | 5582 | 9354 | 15936 | 620 | 7805 | 8425 | AU |
| Austria/Autriche | 2327 | 4166 | 6493 | 2 | 1227 | 5972 | AT |
| Bahamas | — | 34 | 34 | — | 34 | 34 | BS |
| Bahrain/Bahreïn | — | 47 | 47 | — | 52 | 52 | BH |
| Bangladesh | 34 | 102 | 136 | 7 | 94 | 101 | BD |
| Belgium/Belgique | 865 | 5104 | 5969 | 2 | 837 | 5918 | BE |
| Bolivia/Bolivie | 8 | 117 | 125 | 9 | 126 | 135 | BO |
| Botswana | — | 18 | 18 | — | 18 | 18 | BW |
| Brazil/Brésil | 2149 | 6228 | 8377 | 349 | 3494 | 3843 | BR |
| Bulgaria/Bulgarie * | 1 3296 | 452 352 | 453 3648 | — 1271 | 425 102 | 425 1373 | BG |
| Burundi | — | 10 | 10 | — | 10 | 10 | BI |
| Canada | 1785 | 23189 | 24974 | 1503 | 22392 | 23895 | CA |
| Chile/Chili | 140 | 685 | 825 | 71 | 746 | 817 | CL |
| Colombia/Colombie | 43 | 335 | 378 | 12 | 391 | 403 | CO |
| Costa Rica | 30 | 85 | 115 | 13 | 19 | 32 | CR |
| Cuba | 129 | 70 | 199 | 84 | 72 | 156 | CU |
| Cyprus/Cypré | 1 | 65 | 66 | 1 | 65 | 66 | CY |
| Czechoslovakia/Tchécoslovaquie * | 57 7549 | 1495 541 | 1552 8090 | 4 6763 | 1546 307 | 1550 7070 | CS |
| Denmark/Danemark | 964 | 4605 | 5569 | 192 | 1453 | 1645 | DK |
| Ecuador/Equateur | 35 | 152 | 187 | 1 | 76 | 77 | EC |
| Egypt/Egypte | 76 | 731 | 807 | 10 | 317 | 327 | EG |
| El Salvador | 12 | 79 | 91 | 5 | 50 | 55 | SV |
| Fiji/Fidji | 2 | 11 | 13 | 2 | 7 | 9 | FJ |
| Finland/Finlande | 1356 | 2734 | 4090 | 439 | 1467 | 1906 | FI |
| France | 11000 | 16989 | 27989 | 2 | 8438 | 28060 | FR |
| German Dem. Rep./Rép. dém. allemande | 6599 | 1891 | 8490 | 4455 | 1371 | 5826 | DD |
| Germany (Fed. Rep.)/Allemagne (Rép. féd.) | 3 28683 | 19900 | 48583 | 2 9826 | 10362 | 20188 | DE |
| Ghana | — | 17 | 17 | — | 17 | 17 | GH |
| Greece/Grèce | 1308 | 1590 | 2898 | 1114 | 942 | 2056 | GR |
| Grenada/Grenade | — | 2 | 2 | — | 2 | 2 | GD |
| Haiti/Haïti | 4 | 13 | 17 | 4 | 10 | 14 | HT |
| Honduras | 6 | 40 | 46 | 2 | 67 | 69 | HN |
| Hong Kong/Hong-Kong | 10 | 723 | 733 | 10 | 708 | 718 | HK |
| Hungary/Hongrie | 1601 | 1571 | 3172 | 760 | 1018 | 1778 | HU |
| Iceland/Islande | 19 | 58 | 77 | — | 27 | 27 | IS |
| India/Inde | 1207 | 1817 | 3024 | 349 | 1152 | 1501 | IN |
| Indonesia/Indonésie | 5 | 475 | 480 | — | — | — | ID |
| Iran | 169 | 493 | 662 | 35 | 366 | 401 | IR |
| Iraq/Irak | 19 | 126 | 145 | 14 | 24 | 38 | IQ |
| Ireland/Irlande | 394 | 2355 | 2749 | 24 | 1407 | 1431 | IE |
| Israel/Israël | 669 | 2104 | 2773 | 305 | 1419 | 1724 | IL |
| Italy/Italie | 6369 | 9971 | 16340 | 2 1810 | 6190 | 8000 | IT |
| Japan/Japon | 4 165730 | 25290 | 191020 | 38032 | 8074 | 46106 | JP |
| Kenya | — | 96 | 96 | — | 97 | 97 | KE |
| Luxembourg | 97 | 897 | 994 | 2 73 | 1025 | 1098 | LU |
| Malawi | 2 | 51 | 53 | 2 | 34 | 36 | MW |
| Malì | — | 7 | 7 | — | — | — | ML |
| Malta/Malte | 7 | 17 | 24 | 1 | 11 | 12 | MT |
| Mauritius/Maurice | — | 10 | 10 | 1 | 12 | 13 | MU |



IP/STAT/1980/B

PATENTS/BREVETS

Patent applications filed and patents granted during 1980
Demandes et délivrances de brevets au cours de 1980

BREVETS
Tableau Ia

ENIS
et la

| COUNTRIES PAYS | Applications for patents filed by Demandes de brevets déposées par des | | | Grants of patents to Brevets délivrés à des | | | |
|---|---|------------------------------------|--------|--|------------------------------------|-------|-----------------------------------|
| | Residents Résidents | Non-residents Non-résidents | Total | Residents Résidents | Non-residents Non-résidents | Total | Country code Code des pays |
| | | | | | | | |
| | 665 | 4132 | 4797 | 165 | 1831 | 1996 | MX * |
| Mexico/Mexique * | 39 | 636 | 675 | 9 | 547 | 556 | |
| Morocco/Maroc | 14 | 54 | 68 | 14 | 45 | 59 | MO |
| Morocco/Maroc | 29 | 315 | 344 | 21 | 330 | 351 | MA |
| Netherlands/Pays Bas | 1826 | 5532 | 7358 | 2 | 417 | 2907 | NL |
| New Zealand/Nouvelle-Zélande | 1148 | 2290 | 3438 | 137 | 1122 | 1259 | NZ |
| Norway/Norvège | 716 | 3247 | 3963 | 276 | 1843 | 2119 | NO |
| Oman | 5 | 6 | 304 | 7 | 136 | 143 | OA |
| Pakistan | 37 | 369 | 406 | 14 | 335 | 349 | PK |
| Panama | 15 | 90 | 105 | 9 | 29 | 38 | PA |
| Peru Pérou | 82 | 280 | 362 | 31 | 300 | 331 | PE |
| Philippines | 119 | 1454 | 1573 | 93 | 811 | 904 | PH |
| Poland/Pologne | 6198 | 1644 | 7842 | 5736 | 1962 | 7698 | PL |
| Portugal | 92 | 1731 | 1823 | 95 | 2200 | 2295 | PT |
| Rep. of Korea/Rep. de Corée | 1241 | 3829 | 5070 | 186 | 1446 | 1632 | KR |
| Romania/Roumanie | 2569 | 726 | 3295 | 1194 | 814 | 2008 | RO |
| Rwanda | — | 3 | 3 | — | 2 | 2 | RW |
| Saint Lucia/Sainte-Lucie | — | 14 | 14 | — | 14 | 14 | LC |
| Samoa | — | 2 | 2 | — | 1 | 1 | WS |
| Seychelles | — | 3 | 3 | — | 3 | 3 | SC |
| Sierra Leone | — | — | — | — | 34 | 34 | SL |
| Singapore/Singapour | 2 | 631 | 633 | 1 | 548 | 549 | SG |
| South Africa/Afrique du Sud | 3092 | 5024 | 8116 | — | — | 5390 | ZA |
| Soviet Union/Union soviétique | 3 | 3130 | 3133 | — | 1572 | 1572 | SU * |
| | 164849 | 607 | 165456 | 92897 | 113 | 93010 | |
| Spain/Espagne | 1876 | 9001 | 10877 | 1485 | 7739 | 9224 | ES |
| Sri Lanka | 11 | 67 | 78 | 13 | 607 | 620 | LK |
| Sweden/Suède | 4106 | 5086 | 9192 | 2 | 1394 | 4998 | SE |
| Switzerland/Suisse | 4049 | 5613 | 9662 | 2 | 1475 | 5961 | CH |
| Syria/Syrie | 6 | 98 | 104 | — | — | — | SY |
| Tanzania/Tanzanie | — | 88 | 88 | — | 87 | 87 | TZ |
| Thailand/Thaïlande | 18 | 184 | 202 | — | — | — | TH |
| Tunisia/Tunisie | 27 | 214 | 241 | 33 | 189 | 222 | TN |
| Turkey/Turquie | 134 | 527 | 661 | 32 | 452 | 484 | TR |
| Uganda/Ouganda | — | 28 | 28 | — | 38 | 38 | UG |
| United Kingdom/Royaume-Uni | 6 | 19612 | 22000 | 2 | 5158 | 18646 | GB |
| United States America/Etats-Unis Amérique | 62098 | 42231 | 104329 | 37152 | 24675 | 61827 | US |
| Uruguay | 70 | 213 | 283 | 41 | 236 | 277 | UY |
| Venezuela | 236 | 1831 | 2067 | 55 | 408 | 463 | VE |
| Yugoslavia/Yougoslavie | 1384 | 1974 | 3358 | 77 | 578 | 655 | YU |
| Zaire/Zaire | 3 | 100 | 103 | 3 | 100 | 103 | ZR |
| Zambia/Zambie | 2 | 113 | 115 | — | 66 | 66 | ZM |
| Zimbabwe | 39 | 281 | 320 | 24 | 194 | 218 | ZW |

PATENTS/BREVETS

Patents in force on December 31, 1980 broken down according to the year of grant
Brevets en vigueur au 31 décembre 1980 répartis selon l'année de délivrance

BREVETS
Tableau

PATENTS
Chart II

| CODES | 1980 | 1979 | 1978 | 1977 | 1976 | 1975 | 1974 | 1973 | 1972 | 1971 | 1970 | BEFORE AVANT 1970 | TOTAL |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------------------|-------|
| AR | 4570 | 3375 | 1749 | 3017 | 4107 | 3395 | 4514 | 4265 | 5087 | 5830 | 6742 | 31927 | 7851 |
| AU | | | | | | | | | | | | | 614 |
| AT | 5590 | 5708 | 4891 | 4663 | 3968 | 3800 | 3529 | 2757 | 2698 | 2212 | 1873 | 6046 | 4771 |
| BE | 52 | 38 | 24 | 43 | 38 | 27 | 34 | 20 | 16 | 19 | 23 | — | 3 |
| BR | 101 | 103 | 107 | 95 | 114 | 319 | 195 | 28 | 9 | — | — | — | 10 |
| BF | 5918 | 7061 | 9078 | 9938 | 9146 | 8108 | 7653 | 7109 | 6220 | 5377 | 4653 | 19355 | 9961 |
| BG | 427 | 404 | 286 | 148 | 168 | 200 | 95 | 115 | 39 | 42 | 80 | 113 | 211 |
| BI | 10 | 1 | 4 | 6 | 7 | 6 | 4 | 2 | 4 | 5 | 4 | 49 | 1 |
| CA | 23895 | 23546 | 21796 | 20793 | 21741 | 20544 | 21287 | 21246 | 28295 | 29593 | 28741 | 153824 | 41531 |
| CO | 403 | 844 | 45 | 100 | 14 | 5 | 16 | 8 | 50 | 697 | — | — | 21 |
| CR | 32 | 20 | 12 | 66 | 44 | 83 | 59 | 63 | 38 | 44 | 34 | 311 | 8 |
| CU | 156 | — | 22 | 29 | 38 | 6 | 33 | 20 | 21 | 47 | 20 | 532 | 9 |
| CY | 66 | 52 | 42 | 59 | 52 | 59 | 59 | 46 | 44 | 49 | 39 | 48 | 6 |
| CS | | | | | | | | | | | | | 444 |
| DE | | | | | | | | | | | | | 133 |
| EG | | | 50 | 285 | 400 | 880 | 572 | 422 | 373 | 281 | 210 | 582 | 40 |
| GR | 45 | 39 | 69 | 61 | 53 | 62 | 36 | — | — | — | — | — | 3 |
| FI | 1762 | 1378 | 1489 | 805 | 601 | 642 | 449 | 312 | 304 | 320 | 170 | 146 | 83 |
| FR | 27168 | 29020 | 31073 | 30468 | 27920 | 25003 | 21576 | 20744 | 18524 | 16652 | 14191 | 59912 | 32221 |
| DE | 7 | 553 | 3319 | 6642 | 9594 | 11543 | 12571 | 13097 | 13253 | 13333 | 12543 | 41584 | 1380 |
| GH | 17 | 37 | 39 | 75 | 45 | 52 | 50 | 48 | 61 | 96 | 70 | — | 5 |
| GD | 2 | 12 | 3 | 4 | 2 | 5 | 5 | 2 | 4 | 10 | 8 | 66 | 1 |
| HI | 14 | 24 | 7 | 25 | 10 | 15 | 17 | 14 | 6 | 13 | 31 | — | 1 |
| HN | 69 | 73 | 66 | 126 | 172 | — | 14 | 1 | 59 | 65 | 29 | 247 | 9 |
| HU | | | | | | | | | | | | | 131 |
| IS | 27 | 23 | 19 | 27 | 36 | 8 | 19 | 11 | 6 | 5 | 10 | 13 | 2 |
| IN | 1492 | 1157 | 1171 | 1297 | 966 | 720 | 1161 | 420 | 428 | 955 | 915 | 1945 | 126 |
| IQ | 38 | 82 | 4 | 124 | 163 | 181 | 138 | 97 | 384 | 77 | 16 | — | 13 |
| IE | 1411 | 1125 | 972 | 891 | 641 | 554 | 585 | 433 | 375 | 353 | 260 | 283 | 78 |
| IL | | | | | | | | | | | | | 118 |
| JP | 46106 | 44104 | 45504 | 45295 | 31165 | 31915 | 25519 | 26540 | 23214 | 18916 | 14904 | 39548 | 39271 |
| KE | 97 | 98 | 106 | 124 | 98 | 95 | 126 | 117 | 131 | 120 | 103 | 431 | 16 |
| LU | 970 | 1224 | 1667 | 1758 | 1591 | 1378 | 1085 | 890 | 790 | 645 | 536 | 2208 | 147 |
| MW | 34 | 34 | 28 | 34 | 27 | 30 | 31 | 25 | 35 | 10 | 58 | 178 | 5 |
| MI | 12 | 12 | 5 | 11 | 6 | 5 | 6 | 2 | 4 | 13 | 3 | 11 | — |
| MO | 13 | 19 | 15 | 14 | 10 | 17 | 24 | 27 | 20 | 3 | 6 | 19 | 1 |
| MX | 1996 | 2026 | 1660 | 2064 | 2590 | 1220 | 926 | 831 | 1572 | 972 | 982 | 1081 | 179 |
| MC | 53 | 44 | 35 | 24 | 23 | 16 | 20 | 15 | 9 | 6 | 8 | 67 | 3 |
| MA | 351 | 372 | 381 | 401 | 321 | 286 | 229 | 221 | 210 | 145 | 98 | 904 | 39 |
| NL | 3284 | 3154 | 2701 | 2634 | 2126 | 1921 | 1480 | 1255 | 969 | 702 | 577 | 2238 | 230 |
| NO | 2039 | 1702 | 1503 | 1486 | 1185 | 1087 | 1048 | 882 | 728 | 654 | 439 | 721 | 134 |
| OA | | | | | | | | | | | | | 21 |
| PK | | | | | | | | | | | | | 80 |
| LA | 32 | 117 | 36 | 8 | 81 | 741 | 180 | 216 | 420 | 1300 | 228 | — | 33 |
| FE | 331 | 466 | 1036 | 235 | 170 | 57 | 468 | 644 | 573 | 871 | — | — | 48 |
| FH | 904 | 855 | 878 | 1050 | 872 | 750 | 802 | 730 | 781 | 984 | 616 | 3317 | 125 |
| FL | 6907 | 5730 | 3812 | 2772 | 2623 | 2815 | 1105 | 204 | 574 | 268 | 192 | 290 | 272 |
| KR | 1632 | 1419 | 427 | 274 | 479 | 442 | 322 | 199 | 218 | 229 | 266 | 3165 | 90 |
| RO | 2250 | 2404 | 2036 | 1867 | 1442 | 1426 | 1389 | 1139 | 564 | 107 | 101 | 2494 | 172 |
| RW | 2 | 6 | 2 | 6 | 6 | 9 | 2 | 2 | 2 | 6 | — | 35 | — |
| WS | 1 | 3 | 1 | 3 | 1 | 1 | 1 | 2 | — | — | — | — | — |
| SC | 3 | 5 | 1 | 4 | 2 | 3 | 3 | 1 | 6 | 3 | 3 | 27 | — |
| SG | 549 | 735 | 548 | 532 | 684 | 498 | 576 | 432 | 360 | 335 | 289 | 1973 | 75 |
| SU * | 1551 | 2258 | 2029 | 1577 | 935 | 977 | 707 | 816 | 652 | 524 | 385 | 295 | 127 |
| | | | | | | | | | | | | | 7805 |
| LK | 620 | — | — | 3 | 12 | 4 | — | — | — | 18 | — | — | 6 |
| SE | — | 97 | 810 | 1682 | 2901 | 4587 | 5858 | 6221 | 5496 | 4650 | 4045 | 14483 | 508 |
| CH | 5901 | 6154 | 626 | 17373 | 7769 | 7430 | 6033 | 5564 | 5009 | 4590 | 4152 | 12731 | 833 |
| IZ | 87 | 42 | 59 | 71 | 56 | 63 | 65 | 70 | 92 | 99 | 77 | 1298 | 20 |
| IN | 222 | 242 | 211 | 114 | 212 | 201 | 380 | 137 | 385 | 89 | 171 | 2099 | 44 |



IP/STAT/1980/B

PATENTS/BREVETS

PATENTS
Part II

Patents in force on December 31, 1980 broken down according to the year of grant
Brevets en vigueur au 31 décembre 1980 répartis selon l'année de délivrance

BREVETS
Tableau

| CODES | 1980 | 1979 | 1978 | 1977 | 1976 | 1975 | 1974 | 1973 | 1972 | 1971 | 1970 | BEFORE AVANT 1970 | TOTAL |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------------------|---------|
| IR | 484 | 458 | 398 | 656 | 623 | 462 | 246 | 311 | 449 | 400 | 200 | 1980 | 6667 |
| UG | 38 | 18 | 31 | 33 | 54 | 56 | 56 | 41 | 55 | 83 | 70 | 874 | 1409 |
| GB | | | | | | | | | | | | | 210961 |
| US | 61827 | 48853 | 66140 | 65269 | 70236 | 71994 | 76275 | 74139 | 74813 | 78316 | 64427 | 370954 | 1123243 |
| VE | -- | 660 | 1769 | 846 | 1958 | 1438 | 1668 | 1493 | 2315 | 1836 | 4873 | 763 | 19619 |
| ZR | 104 | 97 | 116 | 121 | 186 | 147 | 127 | 144 | 144 | 132 | 117 | 1383 | 2818 |
| ZM | 66 | 53 | 98 | 160 | 127 | 180 | 200 | 121 | 104 | 93 | 57 | 192 | 1451 |
| ZW | 212 | 181 | 212 | 218 | 145 | 227 | 161 | 122 | 164 | 137 | 142 | 847 | 2772 |

SOURCE:

Industrial Property Statistics
1980 in the form of Summary
Tables. W.I.P.O., Geneva, 1982
IP/STAT/1980/B
PP. 8-9, 18-19

QUESTIONNAIRE

- A.
1. Name of Company
 2. Is the Company a subsidiary of a foreign Company?
 3. Is the Company a privately owned local Company?
 4. Was the Company established as a result of a joint venture with a foreign company/organisation?
 5. Is the Company a Parastatal Company?
 6. Is the Company a public Company?
 7. Is the Company Government owned?
- B
1. Does the Company carry out any industrial research locally that may result in an invention?

Yes/No

Reasons:
 2. Does the Company request any institution to carry out research on its behalf?

Yes/No

Reasons:

3. Is this research mentioned in B 1 and B 2 above solely for improvement of existing goods or for other inventions as well?

- 4.(a) If the Company does not carry out any research or instructs other institution(s) to do so does it have any intentions of carry out research in future?

- (b) What are the future prospects of carrying out such research?

5. What is the nature of activity carried out by the Company?

- C.1 (a) Has the Company entered into any agreements/contract with any foreign company for the use, manufacture etc. of the foreign company's goods/process etc. under Patent or otherwise?

If yes when was the agreement/contract entered into?

- (b) What kind of Agreement?

- (i) Licencing Agreement for the use of Patents, which are owned by foreign residents but registered in Zambia?

- (ii) Transfer of technology Agreement?

- (iii) Any other Agreement?

- (iv) Does the Agreement include Patents registered in Zambia for which the terms have expired?

D.1

Contents of Agreements:

- (i) Has the Company got the right to sub-licence or allow other parties to use the technology?

Yes/No

- (ii) Has the Company got the right only to use the technology in certain areas of the world?

Yes/No

- (iii) Are there any restrictions concerning technical assistance?

Yes/No

What are the restrictions?

- (iv) Is the Company bound to grant back any improvement on any technology developed locally?

Yes/No

- (v) Does the Agreement prohibit the Company from entering into any other Agreement with or obtaining licence from another party in the same field?

Yes/No

If yes why?

- (vi) Is the Company allowed to contest the validity of Patents held by the licensor in Zambia?

Yes/No

Reasons:

- (vii) Is there a minimum payment royalty condition in the Agreement which has to be paid whether the Company attains that level of sales or not?

Yes/No

E.1 Has the Company made any inventions locally?

Yes/No

- (i) If yes, what kind of inventions?

- (ii)(a) Have the inventions been patented in Zambia?

Yes/No

- (b) If no, why?

- (iii) What are the reasons for carrying out research leading to the inventions?

(iv) What are the Patents usefulness
in local industry?

(v) What are the advantages over
foreign owned Patents?

(vi) What are the hindrances/disadvantages/
drawbacks, if any, in carrying out
research locally?

(vii) What are the hindrances, if any,
in patenting the local inventions?

2. (i) Are there any incentives for carrying
out research locally?
Yes/No

(ii) If yes, what are these incentives?

3. Does the Company make use of expired patents?

Yes/No

If yes, why?