

# SCIT.ATR.PI.2007.CN

## Annual Technical Report 2007 on Patent Information Activities submitted by China (SCIT /ATR/PI/2007/CN)

Where URLs are requested below, it is preferred that either URLs which are likely to remain stable over time (three years or more) are provided, or home (main) page URLs are provided with a short explanation of how to access the corresponding information.

The term "patent" covers utility models and Supplementary Protection Certificates (SPCs). Offices which issue design patents should report their design patent information activities in their Annual Technical Reports on Industrial Design Information Activities.

### I. Evolution of patent activities

- Changes experienced in terms of application filings and grants with respect to the previous year

In 2007, SIPO received 245,161 invention applications, a 16.5% increase compared to 2006, while inventions granted were 67,948, with a 17.6% increase.

There were 181,324 utility model applications filed in 2007, a 12.4% increase compared to 2006, and utility models granted were 150,036, with a 39.4% increase.

- Trends or areas experiencing rapid changes with respect to the previous year

#### Inventions

Among the technical fields (according to the definition of the International Patent Classification) in which the number of applications filed in 2007 exceeded 4,000, the following has experienced rapid changes compared to 2006:

The number of applications in Class A23 (Foods or foodstuffs; Their treatment) was 6,023, a 24% increase.

The number of applications in Class G01 (Measuring; Testing) was 11,006, a 21% increase.

The number of applications in Class H02 (Generation, conversion, or distribution of electric power) was 4,634, a 19% increase.

The number of applications in Class H04 (Electric communication technique) was 31,500, a 17% increase.

The number of applications in Class F16 (Engineering elements or units) was 4,504, a 15% increase.

#### Utility models

Among the technical fields (according to the definition of the International Patent Classification) in which the number of applications filed in 2007 exceeded 5,000, the following has experienced rapid changes compared to 2006:

The number of applications in Class F21 (Lighting) was 5,128, a 41% increase.

The number of applications in Class G01 (Measuring; Testing) was 7,700, a 23% increase.

The number of applications in Class A47 (Furniture; Domestic articles or appliances) was 13,489, a 19% increase.

The number of applications in Class H01 (Basic electric elements) was 9,885, a 14% increase.

The number of applications in Class B65 (Conveying; Packing; Storing; Handling thin or filamentary material) was 7,164, an 11% increase.

- URLs of web pages of the Office's website that provide statistics related to patents

Chinese <http://www.sipo.gov.cn/sipo2008/tjxx/>

English [http://www.sipo.gov.cn/sipo\\_English/statistics/](http://www.sipo.gov.cn/sipo_English/statistics/)

### II. Matters concerning the generation, reproduction, distribution and use of primary and secondary sources of patent information

- Publishing, printing, copying (main types of publications of the Office in the field of patent information, etc.)

Nowadays, SIPO not only promotes the electronic publication of patent information on the Internet, but also keeps the traditional medium of paper. In these two ways, we provide patent information to government agencies, research institutions, industry and the general public.

- Main types of announcements of the Office in the field of patent information

#### Patent gazettes

Patent gazettes for inventions and utility models are published in paper and PDF formats once a week with the bibliographic data, abstracts and figures, legal status, indexes, etc.

#### Patent specifications

Specifications of inventions published, granted in TIFF formats and utility models are published together with patent gazettes once a week, with claims, descriptions and drawings.

#### Patent certificates

The patent certificates and their duplicate copies for inventions, utility models and designs are issued periodically.

- Mass storage media used (paper, microforms, optical storage, etc.)

The above-mentioned documents are stored in the medium of DVD.

- Word processing and office automation

The paper applications are scanned and converted into the electronic image data for the use of following procedures. The bibliographic data are collected manually twice, and then the two sets of data are compared automatically to find the differences so as to eliminate the clerical errors. The bibliographic data of electronic filings is extracted from the applications automatically. Prior to the generations of the gazettes, specifications, certificates, the bibliographic data is collated and corrected manually again.

- (New) techniques used for the generation of patent information (printing, recording, photocomposing, Optical Character Recognition (OCR), etc.)

#### Patent gazettes

By using electronic scanning and Optical Character Recognition (OCR) technologies in the data processing, the documents in PDF format after editing and typesetting are printed into patent gazettes and saved on the Internet.

#### Patent specification

Image files in TIFF format are generated by scanning, and after content selection and layout design the files are printed into pamphlets of specifications by using digital printing equipments and saved on the Internet.

- URLs of web pages of the Office's website that provide access to online publication of patent documents and gazettes, and to other primary and secondary sources of patent information, including patent publication servers and download of bulk patent data

Chinese  
 Patent gazette <http://www.sipo.gov.cn/sipo2008/zwgs/zlgb/>  
 Search system <http://www.sipo.gov.cn/sipo2008/zljs/> and  
<http://pub.cnipr.com/pubpisfts/common/page.do?method=cnSearch>

#### English

Search system <http://ensearch.sipo.gov.cn/sipoensearch/search/tabSearch.do?method=init> and <http://pub.cnipr.com/enpubpisfts/common/page.do?method=cnSearch>.

### **III. Matters concerning abstracting, classifying, reclassifying and indexing of technical information contained in patent documents**

- Abstracting, reviewing, translating

SIPO provides translation service from Chinese to English. The computer-aided translation workload in 2007 was over 28 million Chinese words of abstracts and nearly 7 million Chinese words of titles, applicants and inventors, all of which were from domestic applications.

- Classification<sup>1</sup>, preclassification<sup>2</sup> (if applicable), and reclassification<sup>3</sup> activities; Classification system used, e.g., International Patent Classification (IPC), other classification systems (please indicate whether or not patent documents are classified by your Office and, if so, which classification system is used)

The International Patent Classification (IPC) advanced version is adopted by SIPO to conduct the classification for applications of inventions and utility models.

In the pre-classification phase, the initial broad classification symbols (usually the IPC subclass or group) are allotted to patent applications manually for routing said applications to appropriate classifiers in the classification team who allots one or more classification symbols according to the latest version of IPC; examiners verify one or more IPC symbols given by the classifiers, reconsider the classification for the granted patents after search and examination.

As a new version of the IPC enters into force, SIPO will reconsider the related documents and usually perform the reclassification.

- Coordinate indexing (domestic deep indexing systems, keyword indexing)

Titles, abstracts and main claims of inventions published, granted and utility models granted since 1985 are indexed with keywords, which are used in the present China Patent Retrieval System (CPRS).

Patents related to the Traditional Chinese Medicine (TCM) published since 1985 are deeply indexed, including the rewriting of titles and abstracts, IPC detailed classification, PHC classification, keywords indexing based on category fields, TCM formula indexing, etc., and all the data processed are translated into English.

- Hybrid system indexing

No activities.

- Bibliographic data and full-text processing

According to the "China Patent Electronic Data Standard" constituted based on WIPO standard ST.36, the data processed by SIPO include the bibliographic data and abstracts of inventions published, granted and utility models granted since 1985 and the full text data of the documents since 1996.

## IV. Search file establishment and upkeep

- File building

The full image data of inventions published, granted and utility models granted since 1985, as well as the bibliographic data, abstracts and main claims are added to the search file. Examiners of SIPO can search the CPRS to retrieve the desired documents. The file is updated every two weeks.

The patents related to the Traditional Chinese Medicine (TCM) published since 1985 are deeply indexed and added to the search file, the full image data of which can be searched from the China TCM Patent Database by examiners of SIPO. The file is updated every three months to ensure that the data is the latest.

SIPO has 26 domestic and foreign NPL databases including the Web of Knowledge, which are updated periodically (1-2 months) by the providers.

- Updating

See "File building".

- Storage, including mass storage media

Except that EPOQUE system uses an independent magnetic disk array, all the other search files (patent or non-patent) are stored in uniform magnetic disk arrays and backed up with magnetic tapes.

- Documentation from other offices maintained and/or considered part of the available search file

By means of data exchange, SIPO collects the patent documentations from most countries in the world, and among these the following are included in the search file:

EPOQUE was introduced from EPO and put into production in 1998, which contains 22 databases including 3 abstract databases (WPIEPODOC PAJ), 11 full-text databases (TXTCHF, TXTCHG, TXTDE1, TXTEPF, TXTEPG, TXTEP1, TXTFR1, TXTGB1, TXTWOF, TXTWOG, TXTWO1), 7 classification databases (IPC1-6, ECLA) and a thesaurus database (EPOS). The new data is downloaded from the EPO server via FTP weekly to update the databases.

## V. Activities in the field of computerized and other mechanized search systems

- In-house systems (online/offline)

Following search systems are provided by SIPO (online):

#### CPRS

By using a dedicated client application, examiners of SIPO can access CPRS from the desktops. The system contains the Chinese patents since 1985, and provides the search entries with the bibliographic data, abstracts, claims and keywords, via which examiners can retrieve the full image data of the patents. Besides, the system also incorporates the patent documents from US, JP, EP and WO, and the full image data of these can be retrievable by application numbers, publication numbers, etc.

#### China TCM Patent Database

China TCM Patent Database can be accessed through B/S. The database covers the patents related to TCM since 1985, and provides 29 search entries with the bibliographic data, subjects and applications/therapeutic effects to facilitate the examiners to search for the full image data of desired patents.

#### EPOQUE

EPOQUE can be accessed by a dedicated client application from the desktops, which has become the main foreign documentations search system used by examiners.

#### Non-patent Digital Resource Portal

With MetaLib/SFX as the mainframe, non-patent digital resource portal integrates all non-patent resources of SIPO to provide an integrated search interface for examiners to retrieve the image data of the NPL.

- External databases

SIPO's examiners can access STN database. Besides, they can also search the NPL databases including Web of Knowledge, Elsevier ScienceDirect, IEEE/IEE Electronic Library, EI Compendex through the hyperlinks on the official website.

- Administrative management systems (e.g., register, legal status, statistics and administrative support)

#### Electronic Filing System (EFS)

SIPO launched the EFS in 2004 in order to provide online filing service for applicants. This year, e-PCT system was also formally put into production to accept electronic PCT-SAFE applications.

#### China Patent Management System (CPMS)

CPMS is the core supporting system for the electronic flow management. It is provided with the functions of monitoring time limits, status and fees of patent applications, information inquiry and statistics. It also helps formality examiners to complete all kinds of notifications, offers all necessary sheet templates, and standardizes the workflow.

#### Computer Aided Examination System

The system includes patent examination subsystems for inventions and utility models, which can automatically fill the basic information on a patent application in various forms, offer step by step examination procedures and assist the examiners to complete the substantive examination, so as to provide the intelligent examination tool for the examiners.

- Equipment used (hardware, including the types of terminal and network used, and software), carriers used

The infrastructure facilities of SIPO include 2 IBM mainframes (used for EPOQUE system), more than 350 NT and UNIX servers, 4300 PCs, 3500 notebooks, 50 central printers and 1000 decentralized printers. The storage volume is up to 350TB.

Examiners can access the Intranet with 10Gbps core switch and 100Mbps link to desktops for the network resources.

- Existing online thesauri; their structure, presentation and usefulness for computerized searches

No activities.

## **VI. Administration of the industrial property office library, and information products and services available to the public (relating to facilities, e.g., for lodging applications, for assisting clients on searching procedures, for obtaining official publications and registry extracts)**

- Planning, administration, automation, security, buildings

The public service provided by SIPO includes:

#### Call center

The center offers information consultation to the public for free by face-to-face, telephone, online and mail.

#### Official website

The official website of SIPO offers search and inquiry services in both Chinese and English. The patent search and experimental platform of patent information services on the website collect more than 2 million pieces of Chinese patent data since 1985, and also collect nearly 40 million pieces of English patent data from 80 countries and regions.

#### Local Patent Information Center (LPIC)

SIPO has set up local patent information centers across the country and provided them with patent data. The centers provide search and inquiry services for the public.

#### Patent Documentation Library

The library offers documents reading, inquiry, search, replication and training services to the public.

#### Local Patent Receiving Offices

SIPO has set up Local Patent Receiving Offices in 24 cities all over the country in order to accept patent applications and provide inquiry service for the public.

#### Security

At present, SIPO uses domain-control management to control the terminal access, and uses the virus defense mechanism to avoid the virus attack. Besides, the reasonable configuration of the DMZ switch, IPS, firewall and other devices in the whole system also improves the security capability of the network information system.

- Collecting, acquisitions, preparation

SIPO has collected 67 types of patent specifications in paper format from 33 patent authorities, 55 types of patent gazettes from 40 authorities and 63 pieces of patent search data from 94 authorities; SIPO has also collected a variety of NPL and search databases thereof, as well as domestic and foreign books and periodicals.

- Collection management, preservation

Books are added with the storage number and classifications and put on shelves. And other data are stored in CD form.

- Interlibrary lending, resource sharing, networks of patent libraries in the country

So far, SIPO has developed the data exchange with most offices in the world, including the raw data exchange with EPO, the content of which refers to the full image data, full text data of patents, and also the bibliographic data and abstracts (Chinese and English).

- Information services available to the public (including computerized services and search files contained in libraries remote from your Office and patent information posted by your Office on the World Wide Web)

#### Information Products

"China Patent Specification" CD, which collects the specifications of inventions and utility models since 1985.

"China Patent Databases Abstract" CD, which collects nearly 20 million pieces of patents information (including inventions, utility models and designs) since 1985. The information of each piece includes the bibliographic data, such as the inventor, publication date, abstract, priority, legal status and main claim, etc.

"China Patent gazette" CD, which provides the information of gazettes for each week. [http://www.sipo.gov.cn/sipo2008/xxcp/zwlgp/200804/t20080407\\_370310.html](http://www.sipo.gov.cn/sipo2008/xxcp/zwlgp/200804/t20080407_370310.html)

SIPO also offers electronic patent gazettes on the official website: <http://www.sipo.gov.cn/sipo2008/zwgs/zlgb/>

#### Search services

SIPO offers the following search systems on the official website:

Patent search, provides the bibliographic data and abstracts of Chinese patent information including inventions, utility models since 1985, and the specifications of them. <http://www.sipo.gov.cn/sipo2008/zljs/Chineseand> <http://ensearch.sipo.gov.cn/sipoensearch/search/tabSearch.do?method=initEnglish>

Experimental Platform of Patent Information Services, collects nearly 40 million pieces of patent data originated from multi-countries and regions including CN, US, EP, JPO and WO, and provides the full text search of patents from CN, US, EP and WO. <http://pub.cnipr.com/pubpisfts/common/page.do?method=cnSearchChineseand> <http://pub.cnipr.com/enpubpisfts/common/page.do?method=cnSearchEnglish>

In addition, the patent document library provides 60 computer terminals to the public, enables readers to access the databases on Intranet and Internet to search patent documents of most countries and international organizations and browse patent specifications. Librarians can guide readers how to search on web via various ways.

- URLs of web pages of the Office's website for electronic filing of patent applications

SIPO provides the following website for the online filing <http://www.cponline.gov.cn/>

English website to provide illustrations for the online filing [http://www.sipo.gov.cn/sipo\\_English/application/](http://www.sipo.gov.cn/sipo_English/application/).

- URLs of web pages of the Office's website that provide information on business procedures such as: filing, publication, examination and grant procedures related to patents; opposition and appeal procedures related to patents; etc.

Chinese <http://www.sipo.gov.cn/sipo2008/zlsqzn/sqq/>

English [http://www.sipo.gov.cn/sipo\\_English/about/examinationAffairs/200707/t20070719\\_178234.htm](http://www.sipo.gov.cn/sipo_English/about/examinationAffairs/200707/t20070719_178234.htm)

[http://www.sipo.gov.cn/sipo\\_English/about/examinationAffairs/200707/t20070719\\_178239.htm](http://www.sipo.gov.cn/sipo_English/about/examinationAffairs/200707/t20070719_178239.htm)

- URLs of web pages of the Office's website that provide a description of information products and services offered by the Office (e.g., patent search service(s) and patent databases), as well as information on how to access and utilize them

See "Information service available to the public".

## VII. Matters concerning mutual exchange of patent documentation and information

- International or regional cooperation in the exchange of machine-readable information, e.g., bibliographic data, abstract and/or full text information

In 2007, SIPO began the documentation exchange with 14 new patent authorities including Bulgaria, Kazakhstan, Hungary and Belarus.

So far, SIPO has collected 67 types of patent specifications in paper form from 33 patent authorities, 55 types of patent gazettes from 40 authorities and 63 pieces of patent search data from 94 authorities. The mediums include paper and DVD. And in the medium of DVD, SIPO has mutually sent official specifications to 23 authorities, official gazettes to 19 authorities, and Chinese patent abstracts in English to 36 authorities.

- Medium used for exchange of priority documents

Since May 2006, SIPO has begun to transmit the priority document to WIPO through EDI, and has received the priority documents from WIPO in CD/DVD format.

- Medium allowed for filing applications

The application could be filed in both paper and electronic form.

## **VIII. Other relevant matters concerning education and training in, and promotion of, the use of patent information, including technical assistance to developing countries (please indicate URLs of web pages of the Office's website wherever appropriate)**

- Training courses for national and foreign participants, use of audiovisual means

SIPO has built up an e-learning platform in China Intellectual Patent Training Center (CIPTC). The center has completed the following work: Since the establishment of the platform in 2002, CIPTC has offered 15 sessions of e-learning courses including the video and audio joint course "Basic Knowledge of IP law", the audio courses "Patent Documentation and Searching", "Copyright", "Anti-unfair Competition", "Practice of Patent Agents", "International IPR Protection", "Intellectual Property and Intellectual Property System", and 24,498 students have taken the courses. In addition, the platform has also established college sub-websites in four universities, opened a sub-website in Henan province, which provides the video and audio joint course "Basic Knowledge of IP law".

14 sessions of audio courses of DL101 e-learning education on IP in cooperation with WIPO Worldwide Academy have been provided by the center, among which 2 sessions for 950 trainees were offered in 2007.

Further more, the center has made 3000 copies of video CD of "IP Study for Government Officials" by the end of 2007, which were distributed to the governmental officials at the municipal and sub-municipal level.

- Assistance to developing countries (sending consultants and experts, receiving trainees from developing countries, etc.)

SIPO held the "Asian Regional Intellectual Property Seminar" for 24 intellectual property officials from 18 Asian countries and regional organizations in Beijing on March 2007 which aimed to advance intellectual property level of the whole Asia and to create a supportive environment for cooperation in this region.

SIPO also held the second China-Mongolia Intellectual Property legal System Seminar with IPOM in Mongolia on June 2007, and signed the "Supplementary Agreement to the Record of Discussion between SIPO and IPOM" which aimed to address computerization-related problems for IPOM.

SIPO hosted various delegations from Asian countries including intellectual property officials, officials and presidents of business organizations and international companies, researchers from academic and research communities. These visitors visited SIPO to learn about our legal system, the administrative procedures, how IPRs were protected and enforced in the P.R China, and the functions and responsibilities of SIPO.

- Promotional activities (seminars, exhibitions, visits, advertising, etc.)

### **Publicities**

SIPO strives in every possible way and gives full exertion to news media and modern network for a better public awareness of the necessity and importance of the respect and protection for IPR. It also strengthened its guidance to local publicity. Major actions taken in recent years include: SIPO has cooperated with the China Central TV (CCTV) to run the CCTV Innovation Grand Ceremony and its prize awarding ceremony in three consecutive years;

Since 2002, SIPO has joined the Chinese Inventions Association and the ALL-China Women's Federation in holding the selection of Female Inventors in the New Century for three times;

In April 2007, through cooperation between SIPO and the CCTV Law Channel, April was defined as the month for IPR publicity to disseminate IPR in all aspects. A series of IPR public advertisements were made and broadcasted in all main TV stations throughout China.

On April 26, 2007, SIPO launched its Open Day Campaign with "Walking Close to IPR" as the theme. Around 200 representatives from all fields and around 30 representatives from various embassies and consulates in China visited SIPO.

### **Seminars**

SIPO has held many national and international seminars, of which the CIPTC has completed the following work:

In 2007, the center held 86 training seminars, an increase of 72% over last year. The number of trainees including patent examiners, people from courts, colleges, enterprises and IP agencies is over 20, 000. Curriculums cover following eight fields: Training Program for the Patent Examiners, Training Program for IP Agencies, Training Program for IP Administrative Departments, IP Training Program for Enterprises, Training Program for Government Officials, Training Program for IP teachers, LLM Program and IP Training Program in Western Regions.

In 2007, the center organized IP lectures in 12 colleges for promoting IP knowledge, and 4500 people participated.

In 2007, the center was recognized as a partner of the intellectual property international training institute of WIPO and obtained WIPO Certificate for Excellence in Intellectual Property Training. The center held 9 international training seminars for 630 trainees and received 52 foreign guests from international organizations and other national IP offices.

The center developed cooperation with John Marshall Law School and Benjamin N. Cardozo School of Law in US.

The center also developed cooperative relationship with International Intellectual Property Training Institute (IIPTI) in Korea. The two institutes began to exchange visitors from 2002 and jointly at the first time organized a seminar in Weihai, China in 2007.

- Studies to identify trends on new technology, e.g., by use of patent statistics and preparation of monographs

SIPO develops science researches in many technological fields, including the electrostatic spinning, magnetic levitation in railway transportation, computer program, fuel cells, mobile communication, antibodies, stem cells, medicine for hepatitis B virus prevention, agriculture chemistry, the display of liquid crystal, plasma, organic electroluminescent and photonic crystal fiber, sea water desalination by reverse osmosis, up-conversion laser and luminescent materials.

- Assistance furnished by offices to facilitate the changing over of receiving offices to electronic data carriers for the exchange of patent documents (see also fourth sub-item of item VI, above)

SIPO initiatively develops the data exchange with other offices, and offers patent data in various forms including CD/DVD.

## **IX. Other general information related to the Office that is available on the Internet -- URLs of web pages of the Office's website that:**

URLs of web pages of the Office's website that:

- provide information on legislation related to patents

Chinese<http://www.sipo.gov.cn/sipo2008/zcfg/>

Chinese<http://search.sipo.gov.cn/sipo/zljs/searchflzt.jsp>;

English: [http://www.sipo.gov.cn/sipo\\_English/laws/](http://www.sipo.gov.cn/sipo_English/laws/).

- the Annual Report of the Office

Chinese<http://www.sipo.gov.cn/sipo2008/gk/>

English[http://www.sipo.gov.cn/sipo\\_English/laws/](http://www.sipo.gov.cn/sipo_English/laws/).

- If necessary, provide further information related to the topics referred to in the current ATR

Chinese<http://www.sipo.gov.cn>

English[http://www.sipo.gov.cn/sipo\\_English/](http://www.sipo.gov.cn/sipo_English/).

- provide open source codes related to patent information systems

No activities.

- the patent-related news regarding the Office

Chinese<http://www.sipo.gov.cn/>

English[http://www.sipo.gov.cn/sipo\\_English/news/](http://www.sipo.gov.cn/sipo_English/news/).

## X. Other relevant matters

1.	Classification is allotting one or more classification symbols (e.g., IPC symbols) to a patent application, either before or during search and examination, which symbols are then published with the patent application.
2.	Preclassification is allotting an initial broad classification symbol (e.g., IPC class or subclass, or administrative unit) to a patent application, using human or automated means for internal administrative purposes (e.g., routing an application to the appropriate examiner). Usually preclassification is applied by the administration of an office.
3.	Reclassification is the reconsideration and usually the replacement of one or more previously allotted classification symbols to a patent document, following a revision and the entry into force of a new version of the Classification system (e.g., the IPC). The new symbols are available on patent databases.