



A BULLETIN
FROM
TIFAC

INTELLECTUAL PROPERTY RIGHTS (IPR)

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Herbs Related Patents

Vasa (Adhatoda vasica)



Vasa (Adhatoda vasica) is a well known drug in the Ayurvedic and Unani systems of medicine. It is a small gregarious evergreen shrub, occurring throughout the plains of India, and sub Himalayan tracts ascending up to 1200 metres. This is known as Vasaka in Sanskrit, Rus in Persian, Arusha in Hindi, Bakas in Bengali, Adulsa in Marwari, Alduso in Gujarati, Adasaramu in Telugu, Adadodai in Tamil, Adusoge in Kannada and Atalotakam in Malayalam. (Source: The Wealth of India and Compendium of Indian Medicinal Plants, Vol 1-5) It is recommended for various ailments like bronchitis, asthma, fever, jaundice and consumption. The leaves and roots are known to be antispasmodic and efficacious in coughs and can be used as expectorant. The pharmacological action and therapeutic properties of Adhatoda vasica are attributed to vasicine and the essential oil. The fluid extract of the leaves relieves cough and bronchial spasms and

liquefies sputum. Insecticidal and antiseptic properties are attributed to vasicine.

Patenting activity relating to this herb does not appear to be much. There are only two Japanese patents on the use of Adhatoda vasica in cosmetics.

Japanese patent JP7157420 was filed by Mikimoto Pharmaceut Co. Ltd in 1993. The title of the patent is 'Cosmetic'. The aim of the patent is to obtain a cosmetic having improved whitening, antioxidation and hyaluronidase inhibiting activities and an improved moisture holding property by cholesteric liquid crystals.

Japanese patent JP7118135 was filed by Nanba Tsuneo and Mikimoto Pharmaceut Co. Ltd jointly. The title of the patent is coincidentally 'Cosmetic'. The purpose of the patent is to obtain a cosmetic containing solvent extracts of Adhatoda vasica used for food for many years being safe to human body. It also helps in whitening action and inhibiting the activity of hyaluronidase.

No other patent filed or granted could be found in the available

databases.

Saptrangi (Salacia chinensis)

Saptrangi is a small erect or straggling tree or large, woody, climbing shrub found almost throughout India including Andaman and Nicobar Islands, thriving along seashore and river banks as well as in forests. The fruit is one to two centimeters in diameter and red when ripe. Ripe fruits are eaten. Roots have been used as an antidiabetic drug in the indigenous system of medicine, and clinical tests are said to have substantiated their efficacy. The root bark contains diketones, fatty matter, rubber, dulcitol, mangiferin, phlobatannin and glycosidal tannins. Roots are astringent, they are said to be abortifacient and a decoction is useful in amenorrhoea, dysmenorrhoea and venereal disease. (Source: The Wealth of India and Compendium of Indian Medicinal Plants, Vol 1-5) It is also known as Dimal, modhuphal in Bengali, Ingli, nisul-bondi in Marwari, Cherukuranti in Malayalam. Saptrangi is the trade name.

Apparently no Salacia related
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Patenting in Textiles

Readers may recall that PFC had published an update on patenting in textiles in India in the IPR Bulletin, Vol 6 No. 12, December 2000. The update was for the patent applications filed in India. This issue presents an analysis of the patents notified for opposition in the area of textiles for the period 1995-2000. These patents are almost granted patents as not many patents are opposed in India. A total of 588 patents were notified for opposition during this period. These fall in the areas of spinning frames, guiding and feeding units, twisting machines, weaving machines, looms, slivers, needles, drafting system, bobbins, carding machines and the like. The year wise breakup of the accepted applications notified for opposition during 1995-2000 is given in Table I.

Table I

Year	No. of Accepted Applications
1995	77
1996	53
1997	152
1998	144
1999	51
2000	91

The breakup of the applications accepted by each of the branch offices is given in Table II.

Table II

Patent Office Branch	No. of Accepted Applications
Chennai	335
Delhi	29
Kolkata	183
Mumbai	41

The highlights of the analysis for the period are represented below in the Table III.

Table III

Total no. of accepted applications	588
No. of accepted applications filed by Indian companies/ individuals	91
No. of accepted applications filed by Indian individuals	16
Companies having more than 5 accepted applications	18
Indian companies having more than 5 accepted applications	4

Accepted Applications filed by Indian Companies and Individuals

About 15% of the total applications accepted belong to Indian companies and individuals. Table IV lists the Indian companies and research institutes whose patent applications have been accepted during this period in the area of textiles.

Indian Jute Industries Research Association focused in areas of yarn grist meter, spring loaded back-rest for looms, can for jute spinning machine, jute looms and others. The South India Textile Research Association has applications accepted for

Table IV

Company	No. of Accepted Applications
Indian Jute Industries Research Association	16
South India Textiles Research Association	13
Ahmedabad Textile Industry's Research Association (ATIRA)	6
Star Spin & Twist Machineries Ltd	6
APS-Star Industries Ltd	4
Lakshmi Machine Works Ltd	4
Allied Engineering Industries	3
Niyanta Engineering Pvt Ltd	3
Star Precision Electronics (India) Ltd	3
Bharat Starch & Chemicals Ltd	2
Dalmia Centre for Biotechnology	2
ICI India Ltd	2
Loyal Machine Works Ltd	2
Central Institute for Research on Cotton Technology	1
Council of Scientific & Industrial Research	1
Indian Card Clothing Ltd	1
Kadri Mills Ltd	1
Lakshmi Mills Co Ltd	1
Loyal Super Fabrics Ltd	1
Secretary, Deptt. of Science & Technology	1
Sir Padamt Research Centre	1
Travancore Rayons Ltd	1

assembly for spinning yarn, method for making slivers, energy conserving spindle and yarn manufacture. ATIRA concentrated on humidifier for controlling humidity of textile process, method of dyeing polyester/cellulosic blend textile material, process for making crimped jute

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Patenting in Textiles

and the like. Star Spin and Twist Machineries Ltd focused mainly on cabler machines for carpet or textile industry. APS-Star Industries Ltd has most of the applications for drafting system of spinning machines. These Indian companies continue to be active in patent filing as well.

Accepted Applications filed by Foreigners and Foreign Companies

A list of the foreign companies for which more than 5 applications have been accepted during the period, is given in Table V.

Most of the applications accepted are from Germany and Switzerland. Maschinenfabrik Rieter AG which is at top in filing patents during 1995-1999 is also at the top in number of applications accepted. About 18% of the total applications accepted belong to Maschinenfabrik. This company has laid focus on a variety of subjects like spinning apparatus, sewing machine, drafting arrangement, ring spinning frame, carding element, feed cable for feeding slivers, cleaning machine for textile fibres, clamping device and others. Zellweger Uster AG has to its credit applications accepted for yarn manufacture, quality assessment of yarns, apparatus for

Table V

Company	No. of Accepted Applications
Maschinenfabrik Rieter AG, Switzerland	108
Zellweger Uster AG, Switzerland	44
Fritz Stahlecker & Hans Stahlecker, Germany	42
Rieter Ingolstadt Spinnereimaschinenbau, Germany	36
E I Du Pont De Nemours & Co, USA	30
Palitex Project Co GMBH, Germany	21
Schubert & Salzer Maschinenfabrik AG, Germany	20
Trutzschler GMBH, Germany	19
SKF Textilmaschinen-Komponenten GMBH, Germany	14
Barmag AG, Germany	7
Memminger IRO GMBH, Germany	7
Spindelfabrik Sussen Schurr Stahlecker & Gill GMBH, Germany	7
Staedtler & UHL, Germany	7
Sobrevin Societe De Brevets Industries Etablissement, Liechtenstein	6

drawing in wrap threads, thread monitoring device, etc. Fritz Stahlecker has concentrated on spinning machines, guiding arrangements and drafting units. Rieter Ingolstadt has patents for slivers, yarn manufacture, spooling apparatus and others.

Major Areas

Major areas in which most of the applications have been

accepted are given below along with the number of applications accepted related to that area (Table VI).

Table VI

Subject	No. of Accepted Applications
Spinning (machines, devices, rings, frames)	196
Yarn manufacture	138
Slivers	57
Drafting Units	45
Guiding units (yarn winding, feeding, take-up devices)	43
Spindles	38
Bobbins	31
Carding machines	20
Weaving looms	12
Webs	11
Needles	11

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Herbs Related Patents

patent seems to have been granted according to the available patent databases. Similarly no application has been filed in India, EPO and many other countries (INPADOC database). Two publications on it, Mehra et al, "Pharmacognosy of Saptrangi-Antidiabetic Drug of Indian Origin", Research Bulletin (N.S.) of the Punjab University 20(III-IV):487-502 (1969) and Krishna et al, "Proanthocyaniding of Salacia Chinensis Linn.", Tetrahedron Letter 26:2441-2446 (1967) have been referred in one US patent titled 'Triterpenoid compound for the treatment of diabetes'.

The Semiconductor Integrated Circuits Layout-Design Act, 2000



Ever since the invention of integrated circuits (IC) in late fifties, the number of transistors in an IC has grown quite rapidly; a commercial chip can now have more than six million transistors integrated into it. "From about \$550,000 25 years ago, the price of a megabyte of semiconductor memory has declined to \$38 today. But over the same period, the cost of building a factory to manufacture such memory chips has risen from less than \$4 million to a little more than \$1.2 billion." (Technology and Economics in the Semiconductor Industry, Scientific American, January 1996). Such high investments are required to achieve technical breakthroughs and it is quite imperative to ensure that the intellectual property associated with designing of ICs should be adequately protected. There would be many aspects of an IC protectable through different forms of IPR; the mask design of IC is something which requires a separate protection mechanism. Many discussions were held internationally to evolve a suitable protection system and as a result Washington Treaty was signed in 1989; India is also a member of this Treaty. Curiously, USA is not a member but it does have its own laws in this regard. Later TRIPS Agreement also made it obligatory on its

members to give protection to layout designs of IC and have suitable laws in place satisfying the basic features of the Washington Treaty. This form of protection is quite different from patents, industrial design and copyright although the principles of protection and enforcement have their roots in industrial design and copyright. One of the differentiating features is that protection for IC lay out design can be obtained even if the IC has been commercialized by the owner for not more than two years. India has enacted its laws on protection of IC layout design are thus India emerges as one of the first developing countries to have its own laws in this area.

The Semiconductor Integrated Circuits Layout-Design Act, 2000 received the consent of the President on September 4, 2000 after it was approved by the Parliament. Salient features of this Act follow in the succeeding paragraphs; however one may refer to the Gazette of India dated September 4, 2000 issued by the Ministry of Law, Justice and Company Affairs for more details on the Act.

The Act has defined the layout-design and the semiconductor IC. The definitions follow as under :

Layout-Design : According to this Act, layout-design means a layout of transistors and other circuitry elements and includes lead wires connecting such elements and expressed in any manner in a semiconductor integrated circuit.

Semiconductor Integrated Circuit: As per the Act

semiconductor integrated circuit means a product having transistors and other circuitry elements which are inseparably formed on a semiconductor material or an insulating material or inside the semiconductor material and designed to perform an electronic circuitry function.

IC Layout-designs not Registrable in India

There are certain layout-designs, which cannot be registered in India. A layout-design: -

- (a) which is not original; or
- (b) which has been commercially exploited any where in India or in a convention country; or
- (c) which is not inherently distinctive; or
- (d) which is not inherently capable of being distinguishable from any other registered layout-design, shall not be registered as a layout-design.

It is important to note here that a layout design which has been commercially exploited for not more than two years from the date on which an application for its registration has been filed either in India or a convention country shall be treated as not having been commercially exploited for the purposes of this act.

Regarding the originality of the design, it may be noted that a design which results out of creator's own intellectual efforts and is not commonly known to other creators of layout-design and manufacturers of ICs shall be treated original. Also, if a layout-design consisting of

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combination of elements and interconnections commonly known to creators of layout - design and ICs shall be treated novel if such a combination as a whole is novel.

Registration of Layout-designs

The application for registration has to be filed with the Semiconductor Integrated Circuits Layout-Design Registry. The Central Government shall define territorial limits within which a Registry Office shall exercise its functions. A Register of Layout Designs shall be kept at the head office and branch offices containing information about all registered layout designs with the names, addresses and descriptions of the proprietor and such other matters.

Any one claiming to be the creator of a layout-design can apply in writing to the Registrar in the prescribed manner at the Registry Office of appropriate jurisdiction. After acceptance, the application shall be advertised within 14 days after the date of acceptance and in case of no opposition the layout-design shall be registered.

Opposition to Registration of Layout-designs

In case, anyone wants to file an opposition to the layout-design, he can do so within three months from the date of advertisement of the accepted design; this period can be extended by one month.

Rights Conferred to the Registered Proprietor

The registration gives to the registered proprietor of layout-

designs the exclusive right to the use of layout-design and to obtain relief in respect of infringement. But for unregistered layout-designs, no damages, what so ever can be recovered in case of infringement. In this way it is different from copyright where, even if you don't register your copyright, you can still claim damages under the Berne Convention.

Date of Registration

The date of registration is the date of filing the application for the layout-design.

Term of Registration

The registration of a layout-design shall be for a period of 10 years from the date of filing an application for registration or from the date of first commercial exploitation anywhere in India or in any country whichever is earlier.

Infringement of Layout-designs

Reproducing, importing, selling or distributing for commercial purposes a registered layout-design or a semiconductor integrated circuit incorporating such design shall constitute infringement. However, if reproduction of layout-design is for purposes of scientific evaluation, analysis, research or teaching, this shall not constitute infringement.

Penalty for Infringement

Any person found to be infringing a registered layout design shall be punishable with imprisonment for a term which may extend to three years or a fine which shall not be less than Rs. 50,000 and may extend to Rs. 10 lakhs, or with both.

Case Study

Highly acidic synergistic microporous catalyst and its applications

A US patent has been recently granted to the Department of Science & Technology (DST), Govt. of India, entitled "Highly acidic synergistic microporous catalyst and its applications"; the research leading to the invention was carried out at the University Department of Chemical Technology (UDCT), Mumbai University, under a DST funded project. The catalyst comprises sulphated metal and carbon molecular sieve (CMS) and may also optionally comprise a heteropoly acid. The catalyst is useful in acid catalysed organic reactions occurring in the microporous range of the catalysts viz. Friedel-Craft's reaction, nitration of aromatic compounds, cyclization of terpenoids and for producing l-isopulegol isomer from d-citronellal.

Background and Prior-art

Many super acids are known to have acidity higher than that of 100% sulphuric acid. Some of these are K-10 clay, zeolites, silica-alumina, sulphated metal oxides such as sulphated zirconia. Copper nitrate supported K-10 clay can be used as catalyst for nitration of chlorobenzene. The best possible ratio of ortho to para isomer is 1:7.5. The drawback of the nitration reaction using the above catalyst is that it does not give adequate

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Case Study...

para isomer - para chloro-nitrobenze, which is an important drug intermediate. It is also possible to produce isopulegol by cyclyzation of citronellal by using zeolite impregnated with an alkali metal like sodium. However, the reaction was not selective enough to give adequate quantities of I-isomer of isopluegol, again an important drug related compound.

The object of the present invention is to fabricate a catalyst with an appropriate pore dimension and providing improved selectivity, by combining the activity of solid catalyst (sulphated metal oxide) and the pore selectivity of CMS, thereby resulting in formation of desired isomers of the products.

The process for producing the catalyst comprises the following steps:

1. providing of the sulphated zirconia

2. coating the sulphated zirconia with at least one of the CMS modifying agent/precursor selected from polyfurfuy alcohol, phenol-formaldehyde resin, poylyvinyl alcohol, polyacrylo nitrile, heteropoly acids with or without heteropoly acid and/or previously wetting the said sulphated zirconia with solvent.

3. drying the sulphated zirconia between 100-150°C.

4. calcining the CMS and CMS precursor coated sulphated zirconia at temperature ranging up to 350°C, preferably 100-

350°C, to thereby obtain the sulphated zirconia in the form of shape selective microporous catalyst.

Several examples including preparation of S-ZrO₂, heteropoly acid (HPA) on S-ZrO₂ (HPA/S-ZrO₂), CMS/S-ZrO₂ and CMS/HPA/S-ZrO₂ are discribed in the patent.

Example 1: Mono nitration of chlorobenzene with S-ZrO₂

0.2 gmol of chlorobenzene and 0.5 gmol of acetic anhydride (1:2.5) were taken in a glass reactor. 2.24 g of S-ZrO₂ catalysts was prepared as given in examples. The thus prepared catalyst was added to this reaction mixture. 70% nitric acid was pumped in the reactor at a constant rate of 1.85x10⁻⁵ gmol/sec. to 78 ml of the organic phase. The reaction was carried out at 28°C in a water bath. In this reaction, since acetic anhydride was taken in excess, it shifts the equilibrium towards the formation of acetyl nitrate in liquid phase. It is this acetyl nitrate which takes part in the nitration of chlorobenzene. The reaction was carried out in a 5 cm long flat bottom glass-lined reactor of 3 cm internal diameter equipped with four baffles and a six pitched bladed turbine placed at 0.5 cm from the bottom. Samples were withdrawn from the reactor at regular intervals of time. Nitric acid, acetic anhydride and acetyl nitrate were extracted with water when two layers were formed. The bottom layer was

found to be the organic phase which was treated with anhydrous sodium sulphate to remove any traces of the dissolved acid, acetic anhydride and acetyl nitrate.

Example 2- : Mono nitration of chlorobenzene

Example 1 was repeated in examples 2-5 with catalysts, prepared as given in various examples. The percentage conversion and ortho:para ratio in respect of each example has been delineated in Table 1. Since Example 3 showed best results in nitration of chlorobenzene, the unreacted chlorobenzene at the end of the reaction, was removed by distillation of the recovered crude product at 132°C. The total weight of the product was then found to be 6.2 g (theoretical 7.9 g). This mixture consisted of 93% p-nitrochlorobenzene and 7% o-nitrochlorobenzene. No meta-isomer was obtained.

Table 1 : Nitration of Chlorobenzene

Ex. No	Solid Catalyst	Conversion of HNO ₃ # (%)	o:p Selectivity
1	S-ZrO ₂	47	1:10.6
2	No catalyst	0	--
3	CMS/S-ZrO ₂	45	1:13.2
4	HPA/S-ZrO ₂	41	1:8.6
5	CMS/HPA/S-ZrO ₂	21	1:10.2
6	Copper nitrate supported K-10 clay (prior-art)	--	1: 7.5

Immediately after the addition of nitric acid was complete

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Case Study...

Novelty & Non-obviousness

The prior art did not teach either the combination of CMS and sulphated metal oxide or the combination of CMS, metal oxide and HPA as catalysts. Therefore novelty lies in arriving at novel combinations for the catalyst. The non-obviousness of the invention is in preparing a specific CMS and sulphated metal oxide combination that provided the catalyst a desired pore volume and pore size distribution, which resulted in improved selectivity.

Claims

The patent has 24 claims, including the product and process claims on the catalyst and its use for chemical reactions such as mono-nitration of aromatic compounds and for producing l-isopulegol from d-citronellal. The major claims are reproduced below:

1. An active highly acidic microporous solid catalyst comprising sulphated metal oxide coated with carbon molecular sieves and optionally heteropoly acid and having pore volume in the range of 0.1-0.2 m³ /g and pore size distribution in the range of 25-40Å.

2. An active highly acidic microporous solid catalyst as claimed in claim 1 wherein said sulphated metal oxide and said carbon molecular sieve coating

have a BET surface area in the range of 60-165 m² /g, pore volume in the range of 0.1 to 0.2 m³/g, and pore size distribution in the range of 25-40Å. and d-spacing in the range of 1.5 to 3.75Å for all the peaks.

3. An active highly acidic microporous solid catalyst as claimed in claim 1 wherein said carbon molecular sieve is selected from polyfurfuryl alcohol, phenol-formaldehyde resin, polyvinyl alcohol, and polyacrylo nitrile.

4. A process for producing an active highly acidic microporous solid catalyst as claimed in claim 1 comprising:

i. providing sulphated zirconia, said sulphated zirconia optionally wetted with solvent;

ii. coating the sulphated zirconia with at least one carbon molecular sieve modifying agent/precursors selected from polyfurfuryl alcohol, phenol-formaldehyde resin, polyvinyl alcohol, and polyacrylo nitrile and optionally heteropoly acid;

iii. drying the carbon molecular sieve precursor coated sulphated zirconia at a temperature between 100-150° C;

iv. calcining the carbon molecular sieve precursor coated sulphated zirconia at a temperature up to 350°C to thereby obtain the sulphated zirconia in the form of shape selective microporous solid

Is Copying Articles from Newspapers an Infringement?

It is often wondered whether copying articles from newspapers shall be an offence under copyright law or not. A copyright lawsuit decided in UK Court of Appeals gives an overview of the situation under which copying from newspapers does not constitute infringement. The case was fought between the Newspaper Licensing Agency (NLA) and the English retailer Marks & Spencer (M&S).

Newspaper Licensing Agency is a copyright license fee collecting business. It takes assignments of the typographical, literary and artistic copyright in newspaper and then charges press agencies and other customers a license fee for reproducing extracts. Marks & Spencer purchased press cuttings of certain articles from a press cuttings agency. The press cuttings agency paid the necessary licensing fee to NLA for the cuttings it had sold to M&S. After receiving those cuttings, M&S copied specific articles and circulated them internally. When NLA came to know about this, it sued M&S for typographical copyright alone and not for literary copyright.

According to British law, in a typical publication, copyright subsists both in the content of a work and also in typographical arrangement and design element

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Is Copying Articles...

of work. Typographical arrangement covers style, composition, layout and general appearance of a page of a published work. The copyright in typographical arrangement of a published edition rests with the publisher.

The court considered the following main points before deciding the fate of the case:

- 1 Whether typographical arrangements of published editions refer to the typographical arrangement of each article published in the newspaper or the typographical arrangement of the whole newspaper.
2. Did M&S's copying amount to the copying of a substantial part?
3. Was a fair dealing defense, of reporting current events, open to M&S?

The court referred to the English Copyright, Designs and Patent Act 1988, in which the clause s.1 (1)(c) states that copyright subsists in the typographical arrangement of published edition and the clause s.8CDPA88 defines published edition as "the published edition of the whole or any part of one or more literary, dramatic or musical works."

Regarding the typographical arrangements the court of Appeal held that published edition meant the newspaper in totality and not individual article. It also said that the publisher is a person who is

meant to benefit from the typographical copyright and therefore the total physical product i.e the entire newspaper is important for arriving at a decision. In this case M&S had not copied the entire newspaper but only a small part of it.

The next thing, the court took into account, was whether the part copied by M&S constituted a substantial part or not. The test for determining this has historically been qualitative and vests on the question "Has an important part been copied?" The court in this case framed another question for determining infringement of typographical copyright-how much physically has been copied? Since M&S had only copied individual articles, it did not constitute a copy of the substantial part of the newspaper.

Copying material from newspapers for the purpose of "reporting current events" is not considered fair use and not an infringement. The court said that the fair use defense was not available to M&S as the distribution of articles was not purely in the nature of "reporting current events" but had everything to do with safeguarding its commercial interests.

The judgement effectively permits limited copying of articles from newspapers without infringing typographical copyright. The judgement is however challengeable in a higher court for considering the correctness of the interpretation of the law adopted by the Court of Appeal.

Domestic News

- During the year 1999-2000, Council of Scientific and Industrial Research (CSIR) has filed nearly 200 patents abroad. It has also initiated an inter-ministerial Team-India project to establish a digital library for traditional knowledge. This move has received the acceptance of the World Intellectual Property Organization (WIPO) and United States Patent and Trademark Office (USPTO).

(Asia Pacific Tech Monitor, Jan-Feb 2001)

- Patents have been obtained in India, Bangladesh, China and US for a male contraceptive developed indigenously by the Indian Institute of Technology, Delhi and the All India Institute of Medical Sciences. The contraceptive - RISUG, an acronym for Reversible Inhibition of Sperms under Guidance offers several advantages over conventional vasectomy. RISUG, a combination of styrene maleic anhydride and dimethyl sulphoxide is injected into vas deferans because of which the sperm is rendered incapable of fertilization.

(PTI Science Service, Vol 20 No 2, Jan 16-31, 2001)

- A patent application has been filed by Regional Research Laboratory (RRL), Thiruvananthapuram for developing improved natural convection driers. These driers have high thermal

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Frequently Asked Questions

What are Intellectual Property Rights (IPR)?

IPR is a general term covering patents, copyright, trademark, industrial design, geographical indications, protection of layout design of integrated circuits and protection of undisclosed information (trade secrets).

What are the types of inventions, which are not patentable in India?

- (i) An invention which is frivolous or which claims anything obviously contrary to well established natural laws e.g. different types of perpetual motion machines.
- (ii) An invention, the primary or intended use of which would be contrary to law or morality or injurious to public health e.g. a process for the preparation of a beverage which involves use of a carcinogenic substance, although the beverage may have higher nourishment value.
- (iii) The mere discovery of a scientific principle or formulation of an abstract theory e.g., Raman Effect.
- (iv) The mere discovery of any new property or new use of a known substance or the mere use of a known process, machine or apparatus unless such a known process results in a new product or employs atleast one new reactant.
- v) A substance obtained by a mere admixture resulting only in the aggregation of the properties of the components thereof or a process for

producing such substance.

- vi) The mere arrangement or rearrangement or duplication of features of known devices each functioning independently of one another in a known way.
- vii) A method or process of testing applicable during the process of manufacture for rendering the machine, apparatus or other equipment more efficient.
- viii) A method of agriculture or horticulture.
- ix) Any process for medical, surgical, curative, prophylactic or other treatment of human beings, or any process for a similar treatment of animals or plants.
- x) Inventions relating to atomic energy.

(There may be some changes in the list after the amendments to the Indian Patents Act 1970 are enacted.)

What are the criteria for naming inventor(s) in an application for patent?

The naming of inventors is normally decided on the basis of the following criteria.

- i) All persons who contribute towards development of patentable features of an invention should be named inventor(s).
- ii) All persons who have made intellectual contribution in achieving the final results of the research work leading to a patent, should be named inventor(s).
- iii) A person who has not contributed intellectually in the development of an invention is not entitled to be included as an inventor.
- iv) A person who provides ideas needed to produce the 'germ of the

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Domestic News

efficiency, uniform heat distribution in any horizontal section and no possibility of smoke or fire. The laboratory has developed three models using this concept, which are useful for domestic sector and small farmers for drying of different granular materials

(CSIR News, Vol 50, No 18)

The Central Electrochemical Research Institute (CECRI), Karaikudi has filed several patent applications during the period 1999-2000. A list of the titles of those applications along with application numbers is given below:

1. An improved super capacitor (1403/Del/99)
2. A process for the preparation of novel polymer alloy useful for making protective coatings (699/Del/2000)
3. A novel formulation useful as corrosion protective coating and a process for the preparation of the corrosion protective coatings (698/Del/2000)
4. A device for detecting corrosion of steel reinforcement in concrete (642/Del/99)
5. An improved carbon/alkali carbonate and amino guinidine bicarbonate electrolyte/carbon electrical double layer-normal-cum-super capacitor (1491/Del/99)

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Frequently Asked Questions

invention' need not himself/herself carry out the experiments, construct the apparatus with his/her own hands or make the drawings himself/herself. The person may take the help of others. Such persons who have helped in conducting experiments, constructing apparatus or making the drawings or models without providing any intellectual inputs are not entitled to be named inventors.

Quite often difficulties are experienced in deciding the names of inventors. To avoid such a situation, it is very essential that all scientists engaged in research should keep a factual, clear and accurate record of daily work done by them in the form of a diary. The pages in the diary should be consecutively numbered and the entries made should be signed both by the scientists and the concerned leader.

When should an application for a patent be filed?

Filing of an application for a patent should be completed at the earliest possible date and should not be delayed until the invention is fully developed for commercial working. An application filed with provisional specification disclosing the essence of the nature of the invention helps to register the priority by the applicant. Delay in filing an application may entail some risks like (i) other inventors might forestall the first inventor in applying for a patent for the said invention (ii) there may be either an inadvertent publication of the invention by the inventor himself/herself or by others independently of him/her.

What are the essential patent documents to be generated and submitted by a potential patentee?

There are two types of patent documents usually known as patent specification namely (i) Provisional Specification and (ii) Complete Specification.

Provisional Specification

A Provisional Specification is usually filled to establish priority of the invention in case the disclosed invention is only at a conceptual stage and a delay is expected in submitting full and specific description of the invention. Although, a patent application accompanied with provisional application does not confer any legal patent rights to the applicants, it is, however, a very important document to establish the earliest ownership of an invention. It is essential to submit the complete specification within 12 months from the date of filing the first application. This period is extendable by 3 months.

The Provisional Specification is a permanent and independent scientific cum legal document and no amendment is allowed in this.

Complete Specification

Submission of Complete Specification is necessary to obtain a patent. The contents of the specification would include information regarding the field to which the invention relates, background of the prior art giving drawbacks connected to the hitherto known details of the invention. The contents of the complete specification should enable a reasonably skilled person in the art to work the invention without the help of the inventor.

Contd from...9

Domestic News

6. A novel composition for manufacture of improved corrosion-resistant portland pozzolona cement, a process for the manufacture of improved portland pozzolona cement and the portland pozzolona cement made thereby (1421/Del/99)

7. An improved process for the preparation of enhanced corrosion resistant iron and steel (155/Del/99)

8. An improved process for preparation of naphthaquinone (312/Del/99)

• In order to encourage the patenting activities in India, the government is taking many initiatives. Ministry of Human Resources Development has been promoting the teaching and research of intellectual property matters. During the last few years, financial assistance has been given to various institutes and organizations to encourage study of IPRs under the Scheme for Financial Assistance for Intellectual Property Right Studies. Efforts are also on for restructuring the office of the Patent Information System, Nagpur, into a training institute.

(India & the WTO, Vol 2
No.12, Dec 2000)

PFC on the move...

1. An interactive meeting was held with the officials of the Patent Information Centres (PICs) set up by PFC, at Bhopal on February 16. Plans for the next five years were discussed. Each PIC along with PFC would sensitize at least 10,000 scientists, technologists and policy makers about IPR during the Xth Plan. Further, patent awareness literature will be translated in different Indian languages.



(Interactive meeting in Bhopal– PIC & PFC officials)

2. Two patent awareness workshops were organized in the month of February 2001. Both the workshops were organized in association with the Department of Science & Technology, Govt. of Rajasthan. The first one was held at Irrigation Management and Training Institute, Kota on February 8 and the second one was held at the Rajasthan Agricultural University, Bikaner on February 19. More than 200 scientists and technologists participated in the proceedings.



(Workshop held at Kota)



(Workshop held at Bikaner)

3. Four more patent applications, two in India and two in USA were filed.

International News

- Mexico has acceded to the Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure. The Treaty will enter into force with respect to Mexico on 21 March 2001.

- It is now possible to file for the purposes of all steps of the international phase of a PCT application, the nucleotide and/or amino acid sequence listing part of the description of such applications either only on an electronic medium in computer readable form or both on an electronic medium and on paper in written form. This move shall reduce the inconvenience caused to the applicants as the basic fee for filing a PCT application shoots up if numbers of sheets are in excess of 30.

- The year 2000 has witnessed an increase of 22.9% in the number of international applications filed under the Patent Cooperation Treaty. A total of 90,948 international applications were filed with PCT receiving offices worldwide. For the 10th consecutive year, inventors and industry from the United States of America (42%), Germany (13.2%), Japan (10.3%), United Kingdom (6.1%) and France (4.0%) topped the list of biggest users of the system. The top 10 countries with the number of applications originating from them are given below:

Contd on...12

Limited free access to Ekaswa Patent Databases available on www.indianpatents.org

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International News

Country	Applications Received
USA	38, 171
Germany	12, 029
Japan	9, 402
UK	5, 538
France	3, 601
Sweden (including Liechtenstein)	3, 071
Netherlands	2, 587
Switzerland	1, 701
Australia	1, 627
Canada	1, 600

Filing in the developing countries showed an over all growth of 80.6% over the year 1999. A total of 3,152 applications originated from the developing countries. The highest growth rate over 1999 in PCT filings from developing countries was observed in India (155.8%), China (141.3%), and Republic of Korea (91.6%).

The percentage of applications received in each area of International Patent Classification is given as below:

Subject Area	Percentage
Chemistry, metallurgy	20.9%
Human necessities	18.4%
Physics	18.0%
Electricity	17.6%
Performing operations; transporting	14.8%
Mechanical engineering; lighting; heating; weapons; blasting	6.1%
Fixed constructions	2.8%
Textiles, paper	1.4%

• Lithuania acceded to WTO on 8 December 2000 taking the WTO membership to 140 countries.

• A European patent (Pat No. 0849990) has been awarded to Geron Corporation on quiescent cell populations for nuclear transfer, covering nuclear transfer technology to clone cows, pigs, sheep, goats, chickens, and other non-human animals. The company plans to use this technology to derive histocompatible human cells as part of its regenerative medicine program.

(Genetic Technology News, Vol 21, No 9, Feb 28, 2001)

• United States Patent and Trademark Office (USPTO) has issued new guidelines for patenting of genes. According to the new guidelines, the genes

or even pieces of genes can be patented in the US provided they show utility for it. The guidelines aim at preventing companies from making frivolous attempts to patent genes.

(Patent World, Iss 129, Feb 2001)

• The government of Brazil has put forward a proposal to WTO for revising the TRIPS accord to avoid conflict in its implementation with the UN Biodiversity Convention. The proposal aims at preventing biopiracy and assisting in the sustained use of genetic resources.

(Patent World, Iss 129, Feb 2001)

• Ecuador has acceded to the Patent Cooperation Treaty (PCT) on 7 February, 2001 taking the total number of PCT contracting states to 110. This will come into effect from 7 May, 2001.

(PCT News Letter, Feb 2001)

Patents for Opposition

The patents notified for opposition for the month of January and February 2001 are enclosed as Supplement to this Bulletin.

Please send us questions and topics you would like to see in the coming issues

NEXT ISSUE

- Herbs Related Patents
- Case Study
- Patents for Opposition

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