

The European patent—its impact on the flavor and fragrance industry

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The European Patent Convention was signed at Munich, Federal Republic of Germany in October 1973 and has come into force in 1978. The so-called "European patent" alleviates the separate filing of patent applications in many countries in Europe.

Why is there a European patent?

New technologies in the essential oil, flavor, and fragrance industries are responsible for a large portion of their industrial growth. If new technology enjoys the protection of a reliable patent, inventions will stimulate expansion. Patents are useful in the attainment of new markets and can form the basis for cooperation between undertakings and for licensing agreements.

The protection of inventions afforded by the European patent will be less expensive, less complicated, and more reliable.

Since June 1, 1978 it is possible, by filing a single patent application in one language (English, French, or German) at the European Patent Office, to obtain an examined patent for most West European states. For its proprietor, the European patent will have the same effects as a portfolio of national patents granted in each state which has ratified the European Patent Convention.

The European patent system is the outcome of a cooperative effort extending beyond the frontiers of the Common Market and all other groupings of European states. In fact, the European patent will cover a market comprising no less than 290,000,000 people. It will open up new vistas for patent policy in Europe.

What was the situation before?

Anyone wanting to obtain a patent in more than one country in Western Europe had to file a patent application in the language of each national office. Correspondence with each office was separate in addition to extensive knowledge of the different patent laws and the procedure in each country. The applicant had to have a professional representative entitled to act before the authorities of the countries concerned.

Who can apply for a European patent?

Any legal or natural citizen regardless of nationality, residence, or place of business.

For which countries can a European patent application be filed?

Belgium, Federal Republic of Germany, France, Luxemburg, Netherlands, United Kingdom, Sweden, Switzerland. Other states which have signed the European Patent Convention and for which it will, in all probability, be possible in the future to file a European patent application are Austria, Greece, Ireland, Italy, Liechtenstein, Monaco, and Norway.

How much does a European patent cost?

The fees payable in the European patent grant procedure have been so calculated that the cost of obtaining a European patent, taking into account the cost of representation before the EPO or national patent offices and translation, will normally be less than the cost of obtaining three national patents. In many cases, the European route will be worthwhile even if the applicant seeks protection in only two contracting states because of the advantages of the uniform grant procedure and the uniform title to protection.

How can one obtain a European patent?

The European patent grant procedure does not make any more demands on the applicant than any other examination procedure.

- Patent applications are filed with the receiving section in the branch at The Hague or with the office in Munich or certain national offices in the member states

- The date of filing is allocated, the fee is paid, and a formalities examination is made.

- Prior art search is made and the search report together with all documents cited therein forwarded to the applicant.

- The application and the search report are published.

- A substantive examination for novelty, inventive step, and possibility of industrial application of the invention is made.

The European patent

- The patent is granted.
- The grant proceedings can be supplemented by opposition proceedings where a third party files notice of opposition.

How are responsibilities allocated within the European Patent Office?

The receiving section, the search divisions, and the examining divisions deal successively with the grant proceedings. Opposition divisions deal with the opposition proceedings. Boards of appeal give decisions on appeals against decisions of the office with the usual judicial independence.

It is expected that the office will be dealing with 30,000 to 40,000 patent applications per year at the end of a build-up period.

How will the gradual build-up of the European Patent Office be organized?

Since June 1, 1978 the European Patent Office has had a staff of approximately 950 people, including the highly qualified search examiners of the former International Patent Institute (IIB) at The Hague and of the Berlin Annex of the German Patent Office.

The examiner complement in Munich will be built up in stages and will consist mainly of experienced examiners from national patent offices specially trained for the European procedure.

From its opening, the European Patent Office has been able to accept European patent applications in all fields of technology without quantitative restriction and to process them, including searching, up to publication. However, as the examining staff will only be built up in stages, it will not be possible in some technical fields to examine all European patent applications for patentability during the build-up period.

As a general rule, subject matter related to our industry (e.g., classes A24B (tobacco), A61K and C11B (fragrances), A23L (flavors), C07C and C07D (organic chemicals)) is now examinable or will be examinable in the near future at the European Patent Office.

In the future, the European Patent Office will also be granting unitary "Community patents" valid for the entire territory of the states of the Common Market. However, this will have to await the entry into force of the Convention for the European Patent for the Common Market.

What other tasks does the EPO carry out?

The European Patent Convention is linked to the worldwide Patent Cooperation Treaty (PCT) which has recently entered into force. European patents can be granted on the basis of an international application filed in accordance with the PCT in any state party to the PCT. The objective of the PCT is to centralize part of the patent

grant procedure in the countries which have ratified the treaty by entrusting searching and, to a certain extent, examination of patent applications filed to a limited number of major offices (e.g., those of the USA, Soviet Union, Japan, and the EPO).

Moreover, as a consequence of the integration of the former International Patent Institute (IIB) and the assumption of all its tasks, the branch at The Hague will carry out searches on the state of the art for certain national patent offices of the former IIB member states (France, Netherlands, Switzerland, Turkey) and offer similar services to the general public. This means that anyone can ask the office to carry out searches (e.g., on the basis of a patent application, so as to decide whether to file a European application).

How does one keep informed about the European patent system?

The Official Journal is published 8 to 10 times a year. It contains legal and general information concerning the organization and the implementation of the European Patent Convention. The European Patent Bulletin publishes information about the progress of applications every two weeks. (Later it will be weekly.) It is the key

document for finding out about published applications and granted patents.

Patent documents: The office publishes patent applications and later the specifications of granted patents. The abstracts of the applications are published separately in series in accordance with the International Classification (IPC).

The European Patent Application Abstracts are available from Derwent Publications Ltd., Rochdale House, 128 Theobalds Road, London WC1X 8RP, England; telephone: 01-242-5823.

Information about applications: The information department provides information on the content of the Register of Patents and handles the opening for public inspection of the content of European patent applications. It also answers general inquiries and sends out information leaflets.

Libraries: There are libraries both in Munich and at The Hague where patent applications and specifications as well as other publications can be consulted by the public.

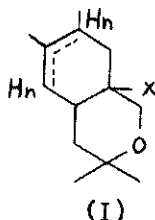
How does someone obtain more detailed information?

Brochures and guides are available through the

Members of our industry have already applied for patents and have had abstracts published in the Derwent European Patent Application Abstract publication. Two abstracts are set forth below.

Tetra: methyl-oxa-bi:cyclo:decene derivs.—prepd. by cyclising alcohol in presence of acid catalyst and used in perfumery compsns. BUSH BOAKE ALLEN

Novel 3,3,7,8-tetramethyl-2-oxabicyclo-[4,4,0]-decene derivs are of formula (I)



(where X is H or 1-4C alkyl; m is 0 or 1; n is 1-2; n+m = 2; the dotted line represents a double bond in one of the two positions).

USES: (I) are used in compounded perfumery compsns. contg. (I) and odoriferous cpds. including e.g. linolol, bergamot oil, lemon oil, benzylsalicylate, methylanthranilate, farnesol, patchouli oil and terpineol,

(I) has a fruity floral odour with a blend of neroli, bitter orange notes. The perfumery compsns. may be used in sprays, cosmetic and deodorant compsns., in bath salts and to scent fibre, fabric or paper products.

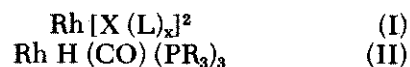
Optically active citronellal synthesis—by hydrogenating neral or geranial using rhodium deriv. and phosphine complex as catalyst.

RHONE-POULENC INDUSTRIES

Prepn. of optically active citronellal (I) comprises hydrogenating neral or geranial in the presence of a catalyst comprising a complex which is soluble in the reaction medium and is prepd. pref. extemporaneously or in situ from a rhodium derivative and a chiral phosphine.

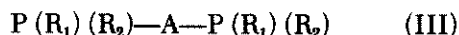
USE/ADVANTAGES: (I) is an *intermediate* for organic synthesis e.g. d-citronellal is used for the prepn. of (-) (1S) *menthol*. Previously (I) was obtd. from various natural essential oils e.g. citronella oil. The present synthesis provides an industrial method for obtaining (I) as its enantiomers.

DETAILS: The Rh deriv. is pref. an (in)organic acid salt or a Rh complex with an achiral ligand, esp. Rh trichloride or a cpd. of formula (I) or (II):



(X is halogen; x is 1-4; L is a mono- or diolefin; R is 1-10 C achiral (cyclo) alkyl or aryl). (I) is pref. μ , μ' -dichloro bis (cyclooctadiene-1,5 rhodium) (II) is pref. Rh H (CO) [P-(C₆H₅)₂]₃. Other pref. Rh complexes are tetrarhodiumdodecarbonyl and hexarhodium-hexadecacarbonyl.

The chiral phosphine pref. contains a chiral C atom and/or a chiral P atom and is pref. of formula (III):



(R₁ and R₂ are 1-15c hydrocarbon gps. at least one being chiral; A is a bond or a divalent opt. inert gp. substituted organic gp.). Pref. R₁ and R₂ are 1-10C alkyl, 4-8C cycloalkyl aryl or alkaryl and A is (a) 1-10C alkylene, 3-7C cycloalkylene opt. substd. by 1-3 1-4C alkyl, arylene, divalent polycyclic gps. these gps. being opt. substd. by 1-4C alkoxy gps.; (b) a divalent heterocyclic gp. contg. 1 or 2 heteroatoms, viz., O or N; (c) a chain of alkylene and/or cycloalkylene and/or divalent polycyclic gps. as in (a) and (b); or (d) a chain of alkylene gps. as above and tert. amino gps. which may be linked directly to the P atoms via the N atom.

national patent offices and other outlets.

A more extensive description of the procedure for filing a European patent application and the grant procedure can be found in "How to get a European Patent—Guide for Applicants," obtainable on request from the EPO.

Write or call the Press and Public Relations Department in Munich or the Information Service at The Hague.

European Patent Office (EPO), Motorama-Haus Rosenheimer Str. 30 Munich; postal ad-

dress: Postfach 20 20 20, D-8000 Munchen 2; telephone: (0 89) 41 21-1; telex: 523 656. (At the end of 1979, the European Patent Office will be moving to its new address at Erhardtstr. 27, Munich.)

Branch at The Hague, Patentlaan 2, Rijswijk; postal address: Postbus 5818, 2280 HV Rijswijk ZH, Netherlands; telephone: (0 70) 90 67 89; Telex: 31 651.

Berlin sub-office, Gitschiner Str. 97-103, D-1000 Berlin 61; telephone: (0 30) 25 89 01.