

European Intellectual Property Teacher's Network

Fourth annual workshop. Theme: "Teaching across boundaries"

24-25 June 2010. University of Alcalá, Spain

Session 1: "Creating an IP teaching culture in universities"

PATENTS - What every scientist and engineer should know: A five-year successful IP teaching experience at Spanish universities and other research centres

Prof. Pascual Segura

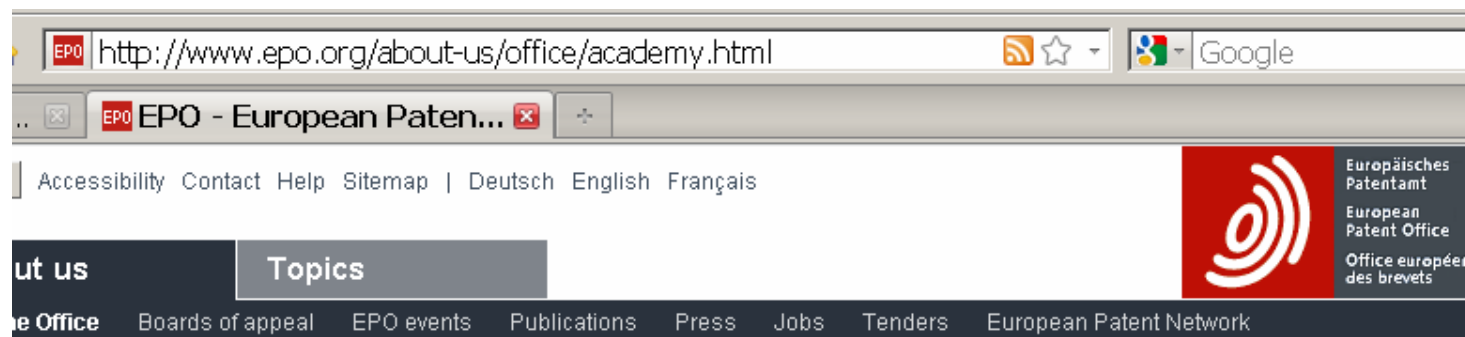
Director of the Patent Centre of the University of Barcelona, UB
(pascualsegura@pcb.ub.es)

Dr. Carmen Toledo

Head of the Documentation and Searching Area, Spanish Patent & Trademark Office (*Oficina Española de Patentes y Marcas, OEPM*)

These slides are downloadable from:

http://www.pcb.ub.es/centredepatents/doc_cursos.htm



European Patent Academy

Programme areas

The Academy's activities are divided into five programme areas, aimed at different target audiences.

Institutional strengthening
Professional representatives
Innovation support
Judicial training
Academia

Our limited target audience:
professors/researchers/students
in Science and Engineering (not
Law, Business, Economics, etc.)

Academia

Target audience

Today's academic world helps to shape the minds of the future. Universities and colleges nurture tomorrow's engineers, lawyers, researchers, designers, managers and entrepreneurs. Europe's educational institutions are the best place to raise awareness of intellectual property (IP), and this is precisely what the Academia unit of the European Patent Academy is doing.

Every student needs to know what IP is and how to use the patent system to support innovation.

Some Previous Teaching Experience (and opinions)

For three years (1998-2000) an official optional subject entitled "PATENTS in Chemistry, Pharmacy and Biotech" was offered to UB undergraduates, along 10 consecutive full days of July, involving 60 hours and granting 6 credits.

It was very successful (ca. 80 enrolled students per year), but for undergraduates patents was just another topic to get credits from.

As students were too far away from applying patent concepts in research or at work, we quitted from offering the subject.

cont.



We, the authors, became aware of the importance of patents for every researcher during our own PhD research. We realized that **university professors, researchers and graduate students did not know that patent documents represent a source of information** that can be critical to the success of their (pure or applied) research.

On the other side, they should know that patents could represent:

- a source of **prestige** (and the concomitant promotion)
- a potential source of **extra income** (in case they are exploited)



However, research staff is very busy and they would not attend a very long session.

Thus **we thought that 4 hours (usually from 10 to 14 h) was the maximum they would attend.**

TTOs cooperation in organization and logistics

All sessions were organized in cooperation with the respective **Technology Transfer Offices (TTOs)** of the university or the research centre, because their personnel: knows the people who may be interested; makes efficient advertising, and could take care of logistics (documentation, room, coffee-break, etc.)

Besides, **someone in charge of patents at the TTO was involved as speaker to deliver a short speech at the end of the session, entitled "Who should be addressed at [the University] for patent-related issues"**. Here local rules and practices were explained.

Attendance was 50-300 persons, with an average of ca. 100.

There was full subsidy from



paying for travel, accommodation and maintenance of the speakers.

The program

[including some 'hot' topics for academics]

1. What is the role of Intellectual Property Rights (IPR) -particularly patents- in today's World.
2. How a discovery gives rise to a patentable invention.
3. First things to do when you think you have a patentable invention.
4. What can be patented.
5. Which are the requirements that an invention must fulfill to get a valid and enforceable patent.
6. How to facilitate the work to patent application drafters.
7. How to make money from inventions by private inventors or academic researchers [ownership, inventorship and reward issues]
8. How to get and enforce patent rights.
9. How to use patent documents as a source of technological information [by the OEPM speaker]
10. How to find patent information [by the OEPM speaker]
11. Who should be addressed at [Univ.] for patent related issues [by the TTO speaker]
12. Colloquium

Main IP Rights

Protection of:

copyright and allied rights

creative works, including
computer programs and
databases

trademarks

distinctiveness

geographical indications

distinctiveness by origin or process

protect. against **unfair competition**

industrial design

non-functional shape or appearance

trade secrets (know-how)

confidential technical information

patents and utility models

technology (inventions)

Some non-patent IPRs
were briefly mentioned



Real examples were widely used as illustration (here on the concept of 'famous trademarks')

Design patents bolstered by the Federal Circuit

Press cuttings were widely used (here on the importance of designs)

The Federal Circuit has overturned a ruling by the International Trade Commission that said that shoe designs mimicking the popular Crocs footwear did not infringe the company's design patent

Lawyers say that the decision could encourage more IP owners to protect their innovations with design patents.

Design Patent US D517,789 "Footwear"

The case involved Crocs' appeal from an ITC decision that shoes manufactured by Double Diamond Distribution, Effervescent Inc and Holey Soles Holdings did not infringe Crocs's US design patent number **D517,789** and that its US patent number **6,993,858** would have been obvious to a person of ordinary skill in the art. In his **opinion**, Judge Randall Rader of the Court of Appeals for the Federal Circuit applied the **Egyptian Goddess** standard for determining design patent infringement. He criticised the ITC for its "excessive reliance on a detailed verbal description in design infringement cases", saying that the written claim description in this case "distorts the infringement analysis by the ordinary observer viewing the design as a whole".



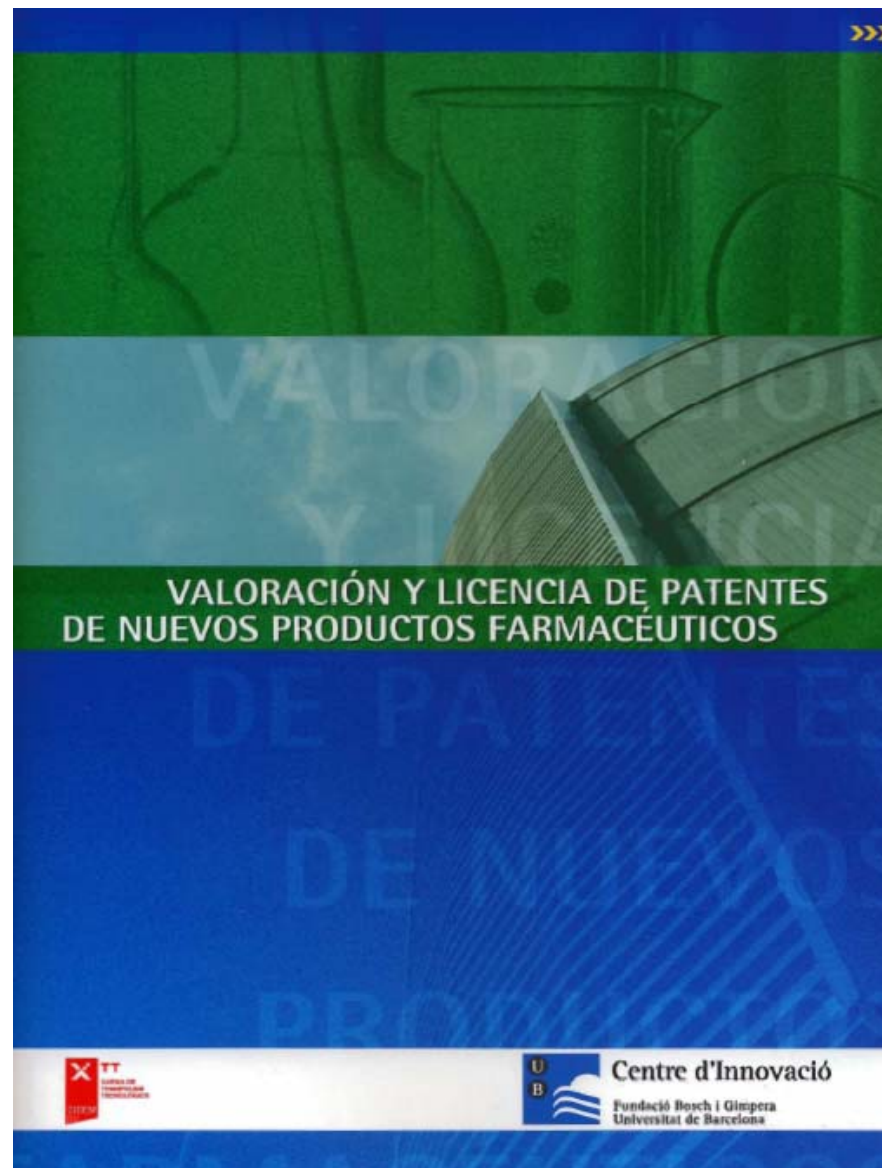
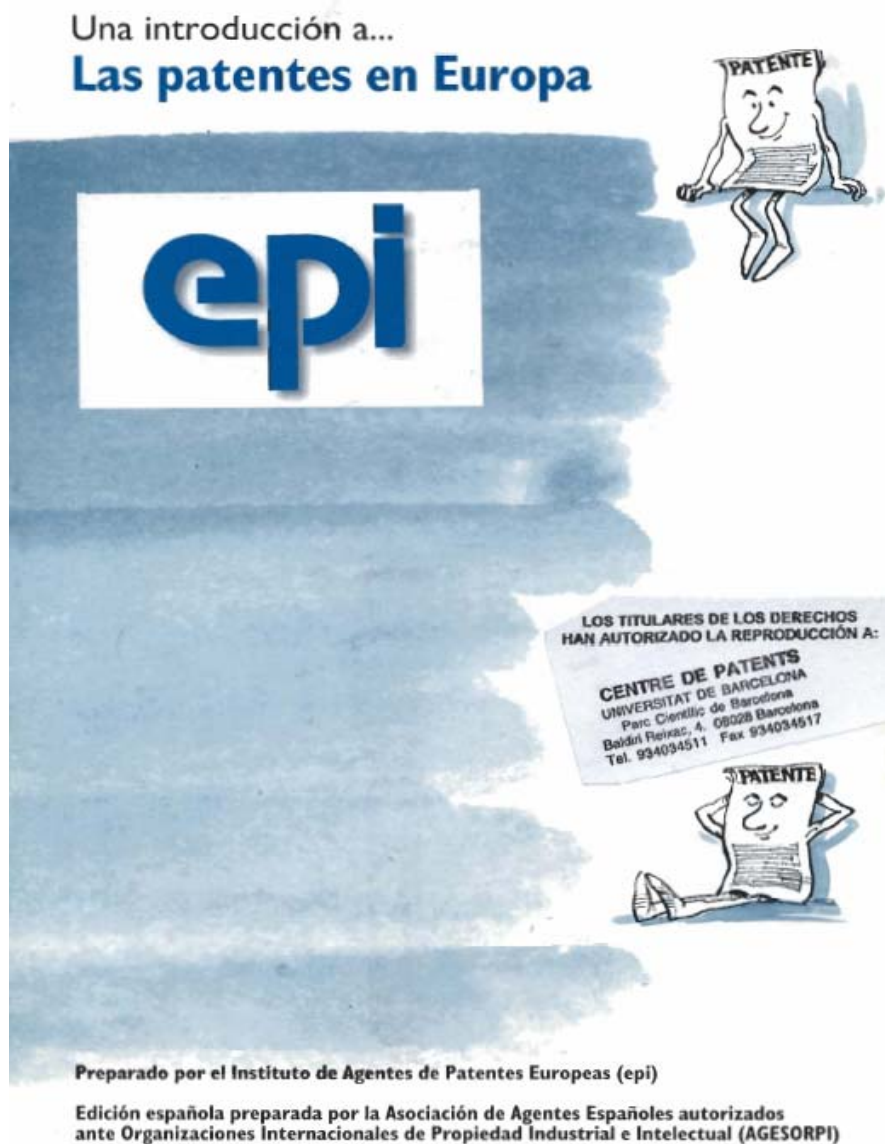
Holey's design

hop - Univ. Alcalá 2010

Documentation included two OEPM booklets on designs and trademarks..



... plus an EPI booklet on EP patents, and a UB one on valuation-licensing



IP DUE DILIGENCE

23 October 2009, Conf. No. H10-5409

W



▶ Assessing Freedom to Operate

Timothy J. May, Finnegan

- Conducting a freedom to operate search
- What is the appropriate scope of the search?
- Methods of analyzing the results
- Handling freedom to operate questions and problems

Other course programs were used (here to illustrate how a patent value would be assessed)

▶ Coffee

▶ Evaluating the Patent Portfolio: Claim Construction, Term, Validity, and Enforceability

Patrick Duxbury, Wragge & Co.

- What patent claims actually cover the product?
- Do the patents have sufficient term for an adequate financial return?
- What are the risks of invalidity or unenforceability in different jurisdictions?
- What confidential information is necessary to evaluate?

▶ Ownership and Joint-Ownership of Patents, Trademarks and Copyrights

Lori-Ann Johnson, Finnegan

- The risks of joint ownership
- Rights of joint owners vary with country and type of IP
- Investigating inventorship of patents to assess ownership risks

3. First things to do when you think you have a patentable invention

- Search prior art in databases of scientific publications (Medline, Excerpta Medica, Biosis Previews, Science Citation Index...) and of patents (SciFinder-CAS, Derwent-WoK, Esp@cenet, OEPMnet, USPTO or Google-Patents, etc.).
- Avoid self-destruction of novelty or inventive step through publication of **abstracts** or posters in conferences, lectures of PhD **thesis**, **public access** to papers on the Internet or on paper, use, sale, etc., before an priority patent application has been filed.
- Talk with an expert (TTO personnel, patent attorney, knowledgeable person, etc.).

Slides with text were self-explanatory, to be useful as reference

1. Patentability of computer-implemented inventions

2. Table of contents

3. Exclusion check

4. Patentable subject-matter

5. Industrial application

6. Novelty

7. Inventive step

8. Examination of mixed-type claims I

9. Examination of mixed-type claims II

10. Example: Controlling a physical process

11. Example: Ordering

12. Summary | Inventive Step

13. Elements of the problem-solution approach

14. "State of the art" and "closest prior art"

15. "Objective technical problem"

16. "Skilled person"

17. Inventive step

18. Case law

19. Case law | Comvik

20. Case law | Ricoh

22. Claim categories

23. Claim formulations I

24. Claim formulations II

Amientas Ayuda

CII_Module_II



Patentability of computer-implemented inventions at the EPO

Module II

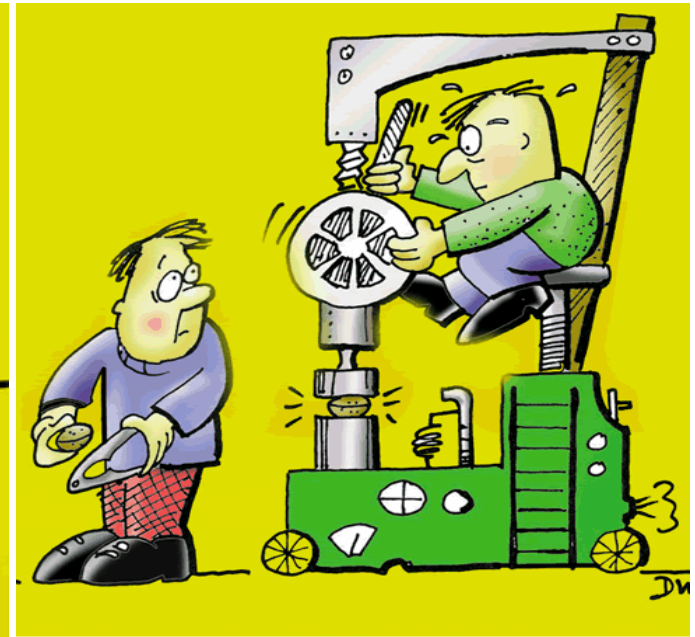
European Patent Academy

John Beatty, Ioannis Bozas, Stefan Krischer
Patent Examiners, EPO

February 2009

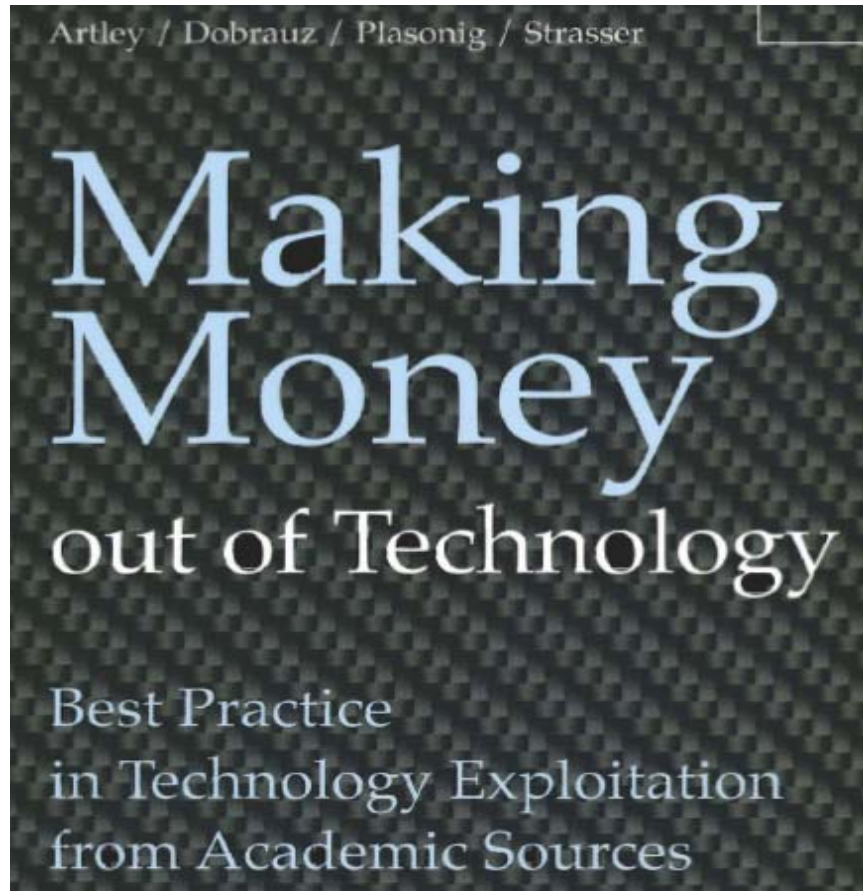


References to online training were made (here on what can be patented)



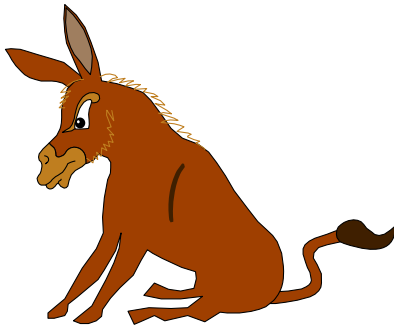
Cartoons were widely used
(here on typical inventor
mistakes, borrowed from EPO)

7. How to **make money** from inventions by private inventors or **academic researchers**



Book covers were used (here on the exploitation of academic technology) to give a sense of reality and provide bibliography

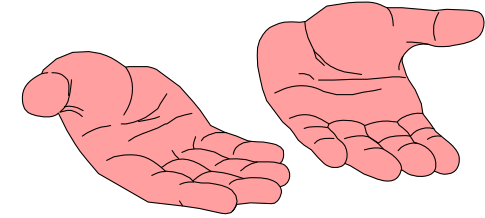




The boss of the lab
or the company



Technicians merely
doing rutinary
supervised work



Those merely using
their hands, without
contribution to
conception

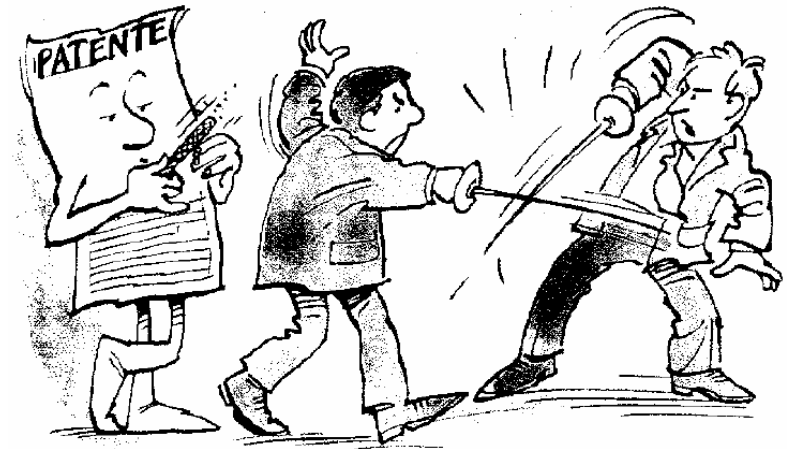
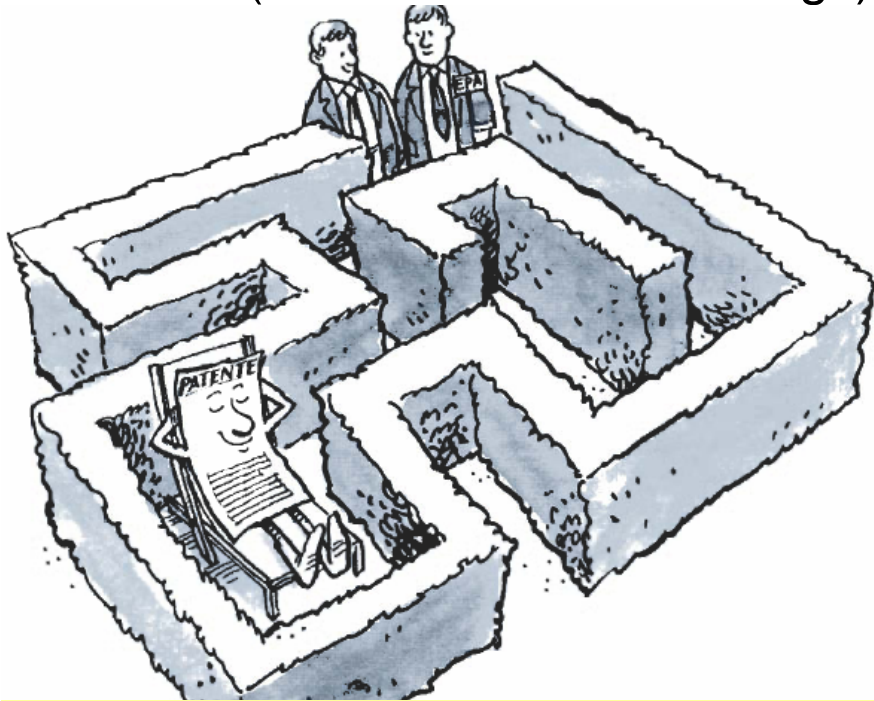
**'Hot' issues on inventorship,
ownership and participation in
benefits were dealt with in detail**

**Sorry, but
they are
not inventors**



8. How to **get** and **enforce** patent rights:

Explained in detail in the booklet "**Una introducción a las patentes en Europa**" (Spanish translation of "*An introduction to Patents in Europe*" from EPI), enclosed as supplementary material, with permission of copyright owners (source of these drawings)



As complex procedures are involved, we advised to look for professional support (e.g. at drafting) when exploitation is expected. Patent applications for mere CVs were not recommended.





OEPM
Paseo. Castellana, 75
28071 Madrid



**9. How to use patent documents
as a source of technological
information**

10. How to find patent information

**These parts were delivered by the
speaker from Oficina Española de
Patentes y Marcas (OEPM)**

Patent information ... What is it for?

Many schemes were used

TECHNOLOGICAL GOALS

- Avoid research duplication
- Solve specific problems
- Detect new technologies
- Find new uses of known technol.
- **Know the prior art**

INDUSTRIAL- TECHNOLOGICAL PROSPECTIVE


- **Competitive intelligence**
- Most active companies
- Technological watch
- Market analysis

TECHNOLOGY TRANSFER

- **Technology valuation**
- License negotiations
- Public-domain technol.
- Partner finding

LEGAL GOALS

- Assessing **patentability** of R&D results
- **Drafting** of own patent appln.
- Deciding to extend patent protection (e.g. via PCT)
- Filing **oppositions**
- **Nullity counter-attacking** in an infringement action
- Assessing **freedom to operate**

(19)  **Europäisches Patentamt**
European Patent Office
Office européen des brevets



(11) **EP 1 541 192 A1**

(12) **EUROPEAN PATENT APPLICATION**
published in accordance with Art. 158(3) EPC

(43) Date of publication:
15.06.2005 Bulletin 2005/24

(21) Application number: 03784214.3

(22) Date of filing: 01.08.2003

(51) Int Cl.⁷: **A61N 1/36, A61N 1/362**

(86) International application number:
PCT/ES2003/000402

(87) International publication number:
WO 2004/014480 (19.02.2004 Gazette 2004/08)

(84) Designated Contracting States:
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
HU IE IT LI LU MC NL PT SE SI SK TR**

(30) Priority: 07.08.2002 ES 200201876

(71) Applicant: **UNIVERSIDADE DE SANTIAGO DE
COMPOSTELA**
15782 Santiago de Compostela (ES)

(72) Inventor: **GARCIA-BENGOCHEA
GONZALEZ-MORO, José, Benito**
15782 Santiago de Compostela (ES)

(74) Representative: **Carvajal y Urquijo, Isabel et al**
Clarke, Modet & Co.,
C/ Goya No. 11
28001 Madrid (ES)

(54) **TWO-PHASE CURRENT VENTRICULAR ELECTRICAL STIMULATOR FOR HEART FAILURE
AND STIMULATION METHOD**

(57) This invention refers to a biphasic current electrical ventricular stimulator and to a pacing method due to heart failure caused by a loss of ventricular synchro-

ator and each one of which will close the circuit with the generator casing. A bifurcated output can also be provided in said pulse generator with connections to the

Searches were focused on the use of free-of-charge patent databases on the Internet

European Patent Office



World Intellectual Property Organization (WIPO)



Patent offices from USA, Japna, China, Spain ...



Others...



Search examples on real R&D were often used

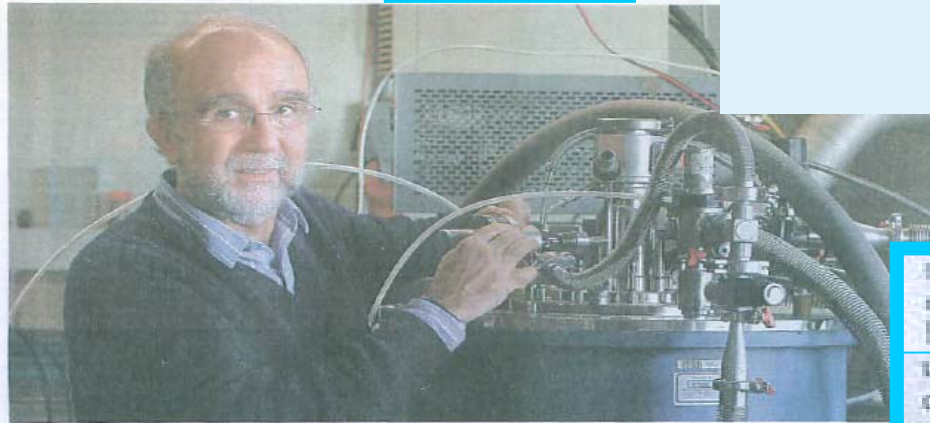
Documents from the EPO:

- from 81 patent offices
- more than 70 milion documents
- legal status of EP documents
- European Patent Classification
- Automatic translations

<http://ep.espacenet.com/>



22 febrero 2009



Javier Tejada, el pasado 17 de febrero en el laboratorio de magnetismo y resonancia de la Facultad de Física de la Universidad de Barcelona. Foto: Marçal Sureda

El hombre magnético

Javier Tejada es uno de los pocos españoles que pasará a la historia como descubridor de un nuevo fenómeno de la física. Además, tiene 15 patentes fruto de sus investigaciones

...a la gente muy valiosa". Son 955 las citas que su trabajo, publicado en 1996, ha recibido en revistas científicas. Algo tan poco usual como el número de patentes derivadas de sus investigaciones: 15. El campo de la física del espín ofrece aplicaciones prácticas en ordenadores e iPods. De hecho, la espintrónica es una tecnología emergente que en 2007 fue premiada con el Nobel al francés Fert y al alemán Grünberg. Antonio Fernández-Rañada, presidente de la Real Sociedad Española de Física, destaca que es fundamental que las investigaciones de los físicos españoles conduzcan a patentes, como en el caso de Tejada. Que las ideas encuentren aplicaciones concretas.

El Banco Central Europeo es uno de los organismos que se nutre de una de las patentes de Tejada: métodos de seguridad para la moneda europea. El profesor declina hablar de esta materia, 50 páginas de cláusulas de confidencialidad se lo impiden.



Quick Search

Advanced Search

Number Search

Last result list

My patents list

1

Classification Search

Get assistance

Quick Help

- » Why is the list limited to 500 results?
- » Why is the number of results sometimes approximate?
- » Why could it be that a certain patent document is not displayed in the result list?
- » Why do I sometimes get results having a title which is not in English?
- » Why is there a number in brackets?
- » Why should I tick the "in my patents list" box?
- » Can I export the result list?
- » What is an XP document?

☐ Compact | P

Esp@cenet use was explained in detail

RESULT LIST

13 results found in the Worldwide database for:

(inventor = javier and inventor = tejada) and inventor = palacios

The result is not what you expected? Get assistance

Sorting criteria: **Upload Date** Priority Date Inventor Applicant Ecla

1 SECURITY DOCUMENT COMPRISING SECURITY MEANS FOR AUTHENTICATION AND METHOD FOR AUTHENTICATION OF A SECURITY DOCUMENT in my patents list ☐

Inventor: ARRIETA ANTONIO JESUS [DE] ;
TEJADA PALACIOS JAVIER [ES]
EC: B42D15/00C; G07D7/04; (+2)
Publication info: WO2005064551 (A1) - 2005-07-14

Applicant: EUROP CENTRAL BANK [DE] ;
ARRIETA ANTONIO JESUS [DE] (+1)
IPC: B42D15/00; G07D7/00; G07D7/04; (+5)
Priority Date: 2003-12-24

2 EQUIPO PARA LA GENERACION DE UN CAMPO MAGNETICO in my patents list ☐

Inventor: TEJADA PALACIOS JAVIER [ES] ;
HERNANDEZ FERRAS JOAN MANEL [ES] (+2)
EC:
Publication info: ES2261050 (A1) - 2006-11-01

Applicant: MINERA CATALONO ARAGONESA SA [ES]
IPC: G01R33/383; G01R33/38
Priority Date: 2004-12-17

3 Method for generating a coherent electromagnetic radiation of a frequency comprised between 1 GHz and 10THz and device for implementation thereof in my patents list ☐

Inventor: TEJADA PALACIOS JAVIER [ES] ;
CHUDNOVSKY EUGENE M [US]
EC: H01S1/02
Publication info: EP1515404 (A2) - 2005-03-16
EP1515404 (A3) - 2005-05-25
EP1515404 (B1) - 2008-04-23

Applicant: MINERA CATALANO ARAGONESA SA [ES]
IPC: H01S1/02; H01S4/00; H01S1/00; (+2)
Priority Date: 2003-08-29

4 Microwave power measurement and spectral analysis technique involves magnetic material treatment for magnetic susceptibility and magnetization monitoring in resonator in my patents list ☐

Inventor: TEJADA PALACIOS JAVIER [ES] ;
GARCIA SANTIAGO ANTONI [ES] (+3)

Applicant: PREMO S A [ES]

[Quick Search](#)[Advanced Search](#)[Number Search](#)[Last result list](#)[My patents list](#)

1

[Classification Search](#)[Get assistance](#)

Quick Help

- » Why are some tabs deactivated for certain documents?
- » Why does a list of documents with the heading "Also published as" sometimes appear, and what are these documents?
- » What does A1, A2, A3 and B stand for after an EP publication number in the "Also published as" list?
- » What is a cited document?
- » What are citing documents?
- » What information will I find if I click on the link "View all"?
- » What information will I find if I click on the link "View document in the European Register"?

☐ In my patents list | [Print](#)[Return to result list](#) | 1 / 13 [Next in result list](#)






SECURITY DOCUMENT COMPRISING SECURITY MEANS FOR AUTHENTICATION AND METHOD FOR AUTHENTICATION OF A SECURITY DOCUMENT

Bibliographic data






[Description](#)[Claims](#)[Mosaics](#)[Original document](#)**Publication number:** WO2005064551 (A1)**Publication date:** 2005-07-14**Inventor(s):** ARRIETA ANTONIO JESUS [DE]; TEJADA PALACIOS JAVIER [ES] +**Applicant(s):** EUROP CENTRAL BANK [DE]; ARRIETA ANTONIO JESUS [DE]; TEJADA PALACIOS JAVIER [ES] +**Classification:****- international:** B42D15/00; G07D7/00; G07D7/04; G07D7/12; B42D15/00; G07D7/00; (IPC1-7): B42D15/00; G07D7/00**- European:** B42D15/00C; G07D7/04; G07D7/12; G07D7/12V**Application number:** WO2004EP14667 20041223**Priority number(s):** EP20030029829 20031224[View INPADOC patent family](#)[View list of citing documents](#)[View document in the European Register](#)[citing documents](#)[legal status](#)

Other members of the patent family

Also published as:

 EP1548657 (A1)
 EP1548657 (B1)
 ES2287405 (T3)
 DE60315049 (T2)
 AT367626 (T)

Cited documents:

 DE2909731 (A1)
 WO0225600 (A2)
 WO03057499 (A1)
 DE19932240 (A1)
 XP001142419 (A)

[View all](#)

Search Report

[Report a data error here](#)

Abstract of WO 2005064551 (A1)

A security document according to the invention comprises substrate means 2 and security means 5 for authentication provided on a predetermined area 4 of said substrate means. The security means comprises means selectively reflecting visible light depending on the temperature and means changing the temperature depending on the application of a magnetic field. The means selectively reflecting light and the means changing the temperature are arranged as to form said security means exhibiting different colors depending on a magnetic field applied to the substrate means. In a

[Translate this text](#)

Searches using classification were strongly recommended

Classification:

- **international:** **B42D15/00; G07D7/00; G07D7/04; G07D7/12; B42D15/00; G07D7/00; (IPC1-7): B42D15/00; G07D7/00**
- **European:** **B42D15/00C; G07D7/04; G07D7/12; G07D7/12V**

European Patent Office 

English Deutsch Français Help index ?

How do I use the Classification search? Get assistance ?

Search the European classification

Find classification(s) for keywords **syringe injection**

[Index](#) [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [Y](#)

PERFORMING OPERATIONS; TRANSPORTING **B** ☐

BOOKBINDING; ALBUMS; FILES; SPECIAL PRINTED MATTER **B42** ☐

BOOKS; BOOK COVERS; LOOSE LEAVES; PRINTED MATTER OF SPECIAL FORMAT OR STYLE NOT OTHERWISE PROVIDED FOR; DEVICES FOR USE THEREWITH; MOVABLE-STRIP WRITING OR READING APPARATUS (book stands [A47B19/00](#) ; book-rests [A47B23/00](#)) **B42D** ☐

Printed matter of special format or style not otherwise provided for (sheets temporarily attached together or with objects so attached thereto [B42F](#) ; maps, diagrams [G09B29/00](#) ; labels [G09F3/00](#)) **B42D15** ☐

B42D15/00 ☐

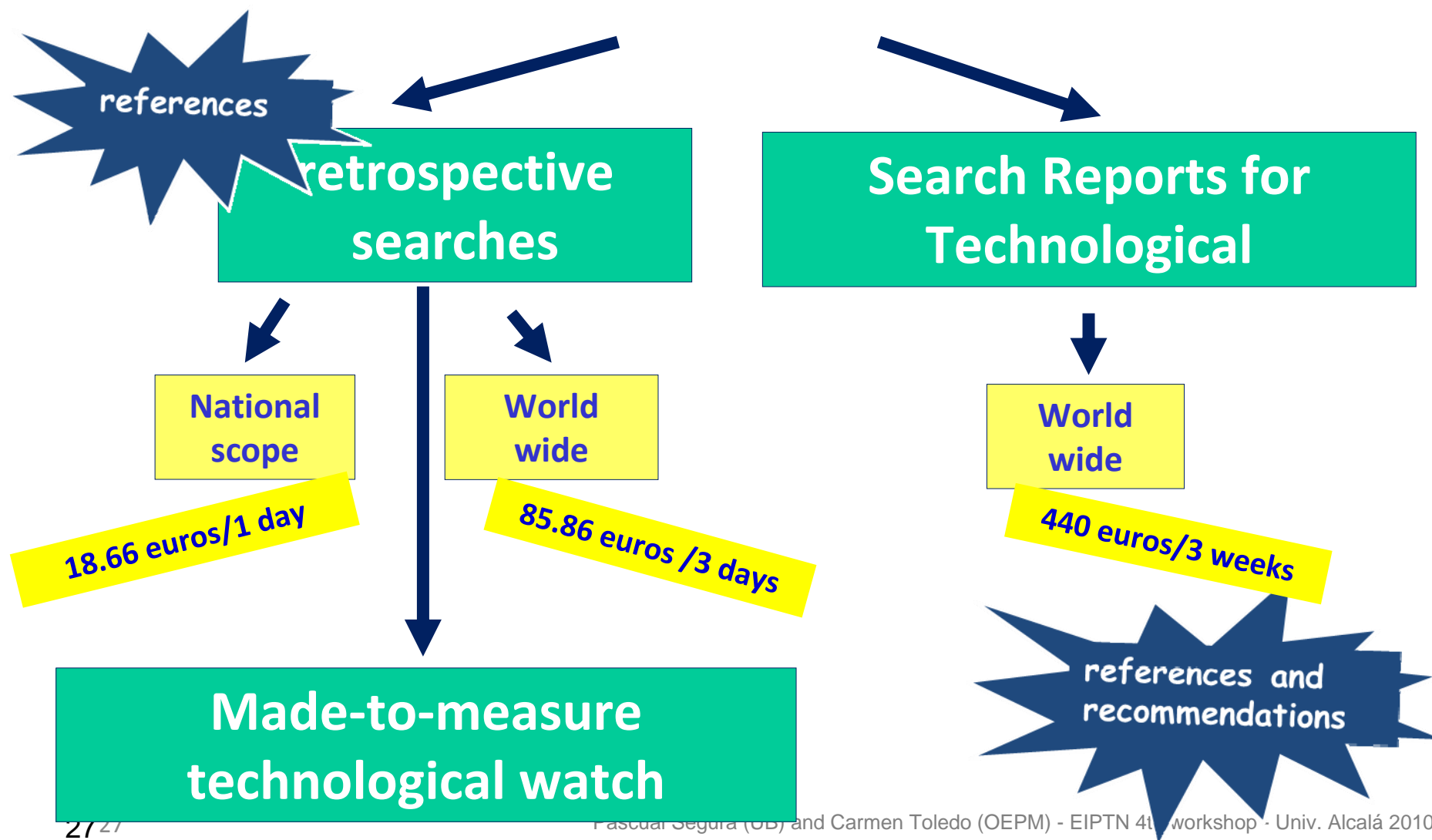
☐ show notes

[N: Securities, e.g. bank-notes, cheques, shares, bonds] **B42D15/00C** ☐

→ [N: with moirè effects] **B42D15/00C2** ☐

→ [N: with security threads] **B42D15/00C4** ☐

"Documental" added-value services of OEPM



Summary

Since 2006 the Spanish Patent & Trademark Office (*Oficina Española de Patentes y Marcas*, OEPM) and the Patent Centre of the University of Barcelona (PC-UB) carried out a series of workshops on IP -mainly on patents- at ca. 50 academic institutions, in cooperation with the corresponding technology transfer offices (TTO), that took care of publicity and logistics. A very focused program was developed along four hours (10-14h), comprising 'hot' topics for academics (by a speaker from PC-UB), patent information (by a speaker from OEPM), a brief presentation of TTO patent activities, and a colloquium. Attendants were staff, postdocs, graduates and (few) undergraduates.

Results were so satisfactory that it is planned to continue this IP training with virtually the same features.

Conclusion

IP in general, and particularly patents, should be taught better at universities and research centres.

All on-going projects, including the [difficult] **modification of university curricula**, would be very welcome.

E-learning projects are surely **very useful, but not for a first contact with the subject**, due to the lack of motivation of researchers.

For this reason we think that we should continue offering our limited-in-scope 4-hour workshops because they are useful and much appreciated ("Patent issues will never be the same at our university, after you have been here", they keep telling us).

Waiting for 'doing something better' should not be detrimental to 'doing something well enough'.

AVAILABLE TIME WAS VERY SHORT

STILL WE HAVE A FEW MINUTES FOR QUESTIONS OR COMMENTS

THANK YOU FOR YOUR ATTENTION !



Please remember that these slides are downloadable from:
http://www.pcb.ub.es/centredepatents/doc_cursos.htm

ANNEX: Universities and research centres visited so far

(2006) Universidad Complutense de Madrid (Facultad de Matemáticas)

- Universidad de la Rioja
- Universitat Autònoma de Barcelona, Facultats de Ciències
- Universitat de Barcelona, Facultat de Química
- Universitat Politècnica de Catalunya, Escola de Telecomunicacions
- Universitat de Barcelona, Facultat de Biologia
- Universidad Autònoma de Barcelona, Escola d'Engyneria
- Universitat de Barcelona, Facultat de Física
- Universitat Politècnica de Catalunya, Escola d'Engyners Industrials
- Centro Nacional de Investigaciones Cardiovasculares (CNIC)

(2007) Universidad de Navarra (Pamplona)

- Instituto de Investigación del Hospital Universitario Vall d'Hebron (Barcelona)
- Universidad de Valladolid
- Universidad Carlos III de Madrid (Parque Científico Leganés Tecnológico)
- Agencia de Innovación y Desarrollo de Andalucía IDEA (Sevilla)
- Universidad de La Laguna (Tenerife)
- Universidad de Córdoba
- Universidad Ramon Llull (Barcelona)
- Universidad Rovira i Virgili (Tarragona)
- Universitat de Lleida

(2008) Universidad de Las Palmas de Gran Canaria

- Universidad de Zaragoza
- Universidad Complutense de Madrid (Facultad de Medicina)
- Universidad de Alcalá de Henares
- Universidad de Alicante

- Universidad Politécnica de Valencia
- Parc Científic de la Universitat de Barcelona
- Institut de Investigació Biomèdica de Bellvitge (IDIBELL), de Barcelona
- Corporación Sanitaria Clínic (Fundació Clínic, IDIBAPS) de Barcelona
- Universidad de Jaén

(2009) Universidade da Coruña

- Universidade de Santiago de Compostela
- Universidad Politécnica de Madrid
- Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria (INIA)
- Universitat de València (Parc Científic de la UV)
- Universidad del País Vasco - EHU (San Sebastián)
- Universidad del País Vasco - EHU (Bilbao)
- Universidad de Extremadura (Cáceres)
- Universidad de Extremadura (Badajoz)
- Fundació Parc Taulí (Sabadell)

(2010) Instituto de Salud Carlos III

- Universidad Rey Juan Carlos
- Universidad Autónoma de Madrid
- Universidad Carlos III de Madrid
- Universidad de Almería
- Universidad de León
- Universidad Católica de Valencia
- Universidad de Mondragón
- Universidad de Castilla-La Mancha (Albacete)
- Universidad de Castilla-La Mancha (Ciudad Real)