

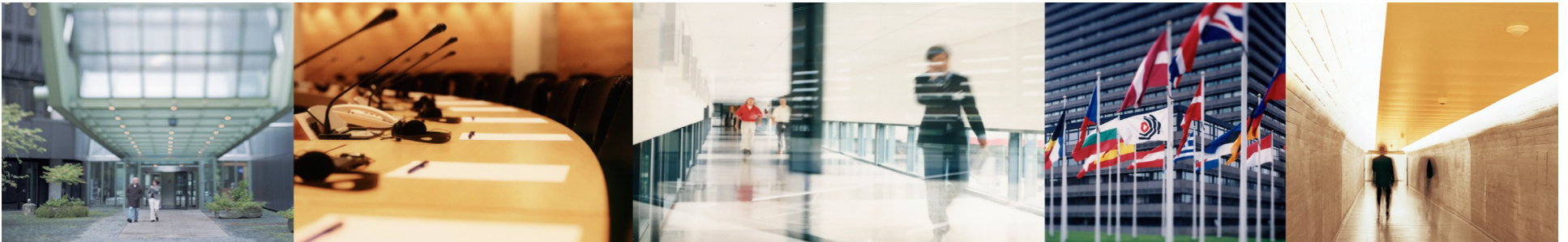


Europäisches  
Patentamt  
European  
Patent Office  
Office européen  
des brevets

# Traditional Knowledge and TKDL at the EPO

**Paul Schwander, EPO**  
**Director Information Acquisition**

**23 March 2011**



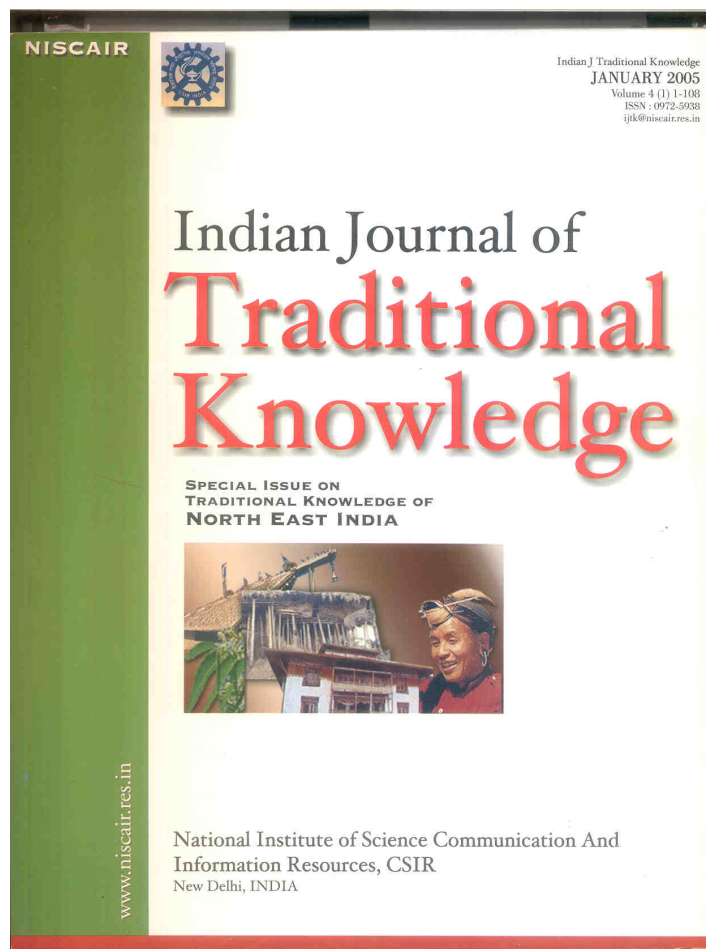
# Roadmap

- The specifics of TK for a Patent Office
- Traditional Knowledge databases at the EPO
- Regional TK initiatives
- TKDL at the EPO
- Future developments



## Why is TK so special?

- More than a technical subject.
- Mixes complex IP legal aspects with simple "property" concepts.
- Developing countries play a key role
- TK data acquisition is a challenge:
  - Geographically diverse
  - Often undocumented
  - Old data







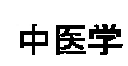
# TK resources in the EPO search system

Traditional Knowledge at the EPO is accessible through various general and dedicated databases covering NPL PCT-minimum and more.

- **Internal databases under EPOQUE**
- **External databases**
- **EVL** (EPO Virtual Library)
- **Traditional Knowledge Portal** (at **epoxy** → <http://epoxy.epo.org/>)
- **Internet resources**

# TK resources in the EPO search system

EPO Internal databases\*, their availability and size:

➤	<b>Medline</b>	<b>(03-2002)**</b>	<b>20.200.000</b>	
➤	<b>Biosis</b>	<b>(10-2003)**</b>	<b>19.000.000</b>	
➤	<b>Embase</b>	<b>(11-2002)**</b>	<b>16.000.000</b>	
➤	<b>XPTK</b>	<b>(08-2005)**</b>	<b>27.000</b>	
➤	<b>TCM</b>	<b>(03-2006)**</b>	<b>52.500</b>	

\*Medline, Biosis & Embase also External for structure-search

\*\*In brackets (...) date of first availability at EPO



## Access to TK sources by member states

TK-relevant database	AT	BE	CH	CZ	DE	DK	ES	FI	FR	GR	HU	IE	LU	NL	NO	NU	PL	PT	RO	SE	UK	
Medline	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Biosis			1	1	1		1	1	1					1	1						1	1
Embase	1		1				1	1			1			1			1		1	1		
XPTK	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TCM																						

Source: epoxy - [NPL databases](#)

# TK resources in the EPO search system

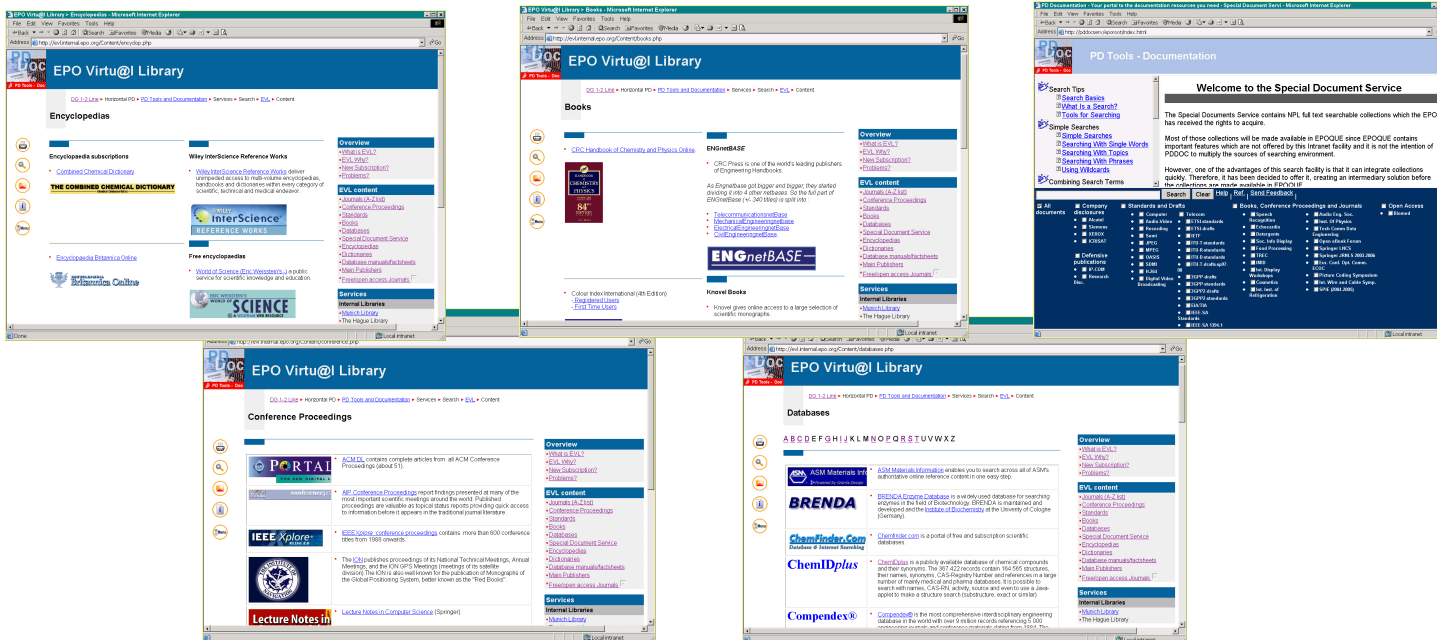
External databases (access via e.g.: Dialog, Questel, STN)

- CA/CAPLUS (Chemical Abstracts)
- REGISTRY (CAS registry file of substances)
- CAB abstracts  CABI *Publishing*
- AGRIS (international information system for the agricultural sciences and technology) 
- PASCAL
- NAPRALERT (Natural products alert)
- SCISEARCH (ISI Science citation index expanded)
- DGENE (Derwent GENESEQ)
- PROMT (Predicasts Overview of Markets and Technology)



# EVL - EPO Virtual Library

- catalogue of journals, books, dictionaries, etc.
- more than 7000 titles accessible
- direct link to NPL full text
- subscription to publishers, database provider, etc.
- bottom-up approach for getting new titles



The image displays five screenshots of the EPO Virtu@ Library website, illustrating its diverse content and navigation options:

- Encyclopedias:** Features sections for Encyclopedias, Encyclopedias subscriptions (including The Combined Chemical Dictionary), Why InterScience Reference Works, InterScience, and Free encyclopedias.
- Books:** Highlights titles like 'CRC Handbook of Chemistry and Physics Online', 'ENGINetBASE', and 'KnowNet Books'.
- PD Tools - Documentation:** A 'Welcome to the Special Document Service' page explaining the integration of NPL full text searchable collections.
- Conference Proceedings:** Lists various proceedings such as 'ACM DL', 'IEEE Xplore', and 'Lecture Notes in Computer Science'.
- Databases:** Provides an alphabetical index (A-Z) and lists databases like 'ASAC Monographs', 'BRENDA', 'ChemBioComp', 'ChemIDplus', and 'Compendex'.



## NPL (TK) PCT-minimum documentation:

### TK NPL PCT-minimum coverage at EPO:

Journal Title	BIOSIS	EMBASE	MEDLINE	XPTK	TCM	EVL	individual records
Acta Pharmaceutica	928	<b>1493</b>	217	4	0	no	1493
Economic Botany	<b>1536</b>	3	5	0	0	no	1536
Fitoterapia	<b>3711</b>	3402	1377	23	0	yes	3711
Indian Journal of Traditional Knowledge	0	0	0	<b>118</b>	0	no	118
Journal of Chinese Medicine	0	<b>210</b>	0	0	0	no	210
Journal of Ethnopharmacology	4600	4664	<b>4855</b>	0	0	yes	4855
Journal of Natural Products	5164	<b>8564</b>	6093	1698	0	yes	8564
Journal of Nutrition	15045	14602	<b>17646</b>	0	0	yes	17646
Medicinal and Aromatic Plants Abstracts	0	0	0	<b>16963</b>	0	no	16963
Pharmaceutical Biology	1555	<b>1582</b>	0	318	0	no	1582
Phytochemistry	<b>26226</b>	38	4556	1097	0	yes	26226
Phytotherapy Research	866	<b>3249</b>	2021	526	0	no	3249
Planta Medica	<b>10256</b>	7383	7590	1080	0	yes	10256
Traditional Chinese Medicine	0	0	0	0	<b>36435</b>	no	36435
<b>Total</b>							<b>132844</b>

Snapshot December 2008

# 中醫學 Traditional Chinese Medicine - TCM 中医学

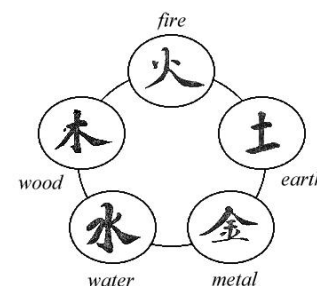
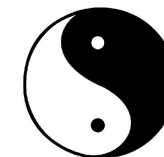
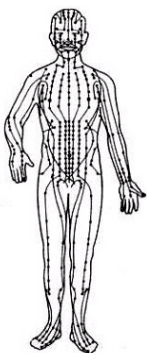
loaded as internal **patent** database in **March 2006**

available to NO's since January 2007

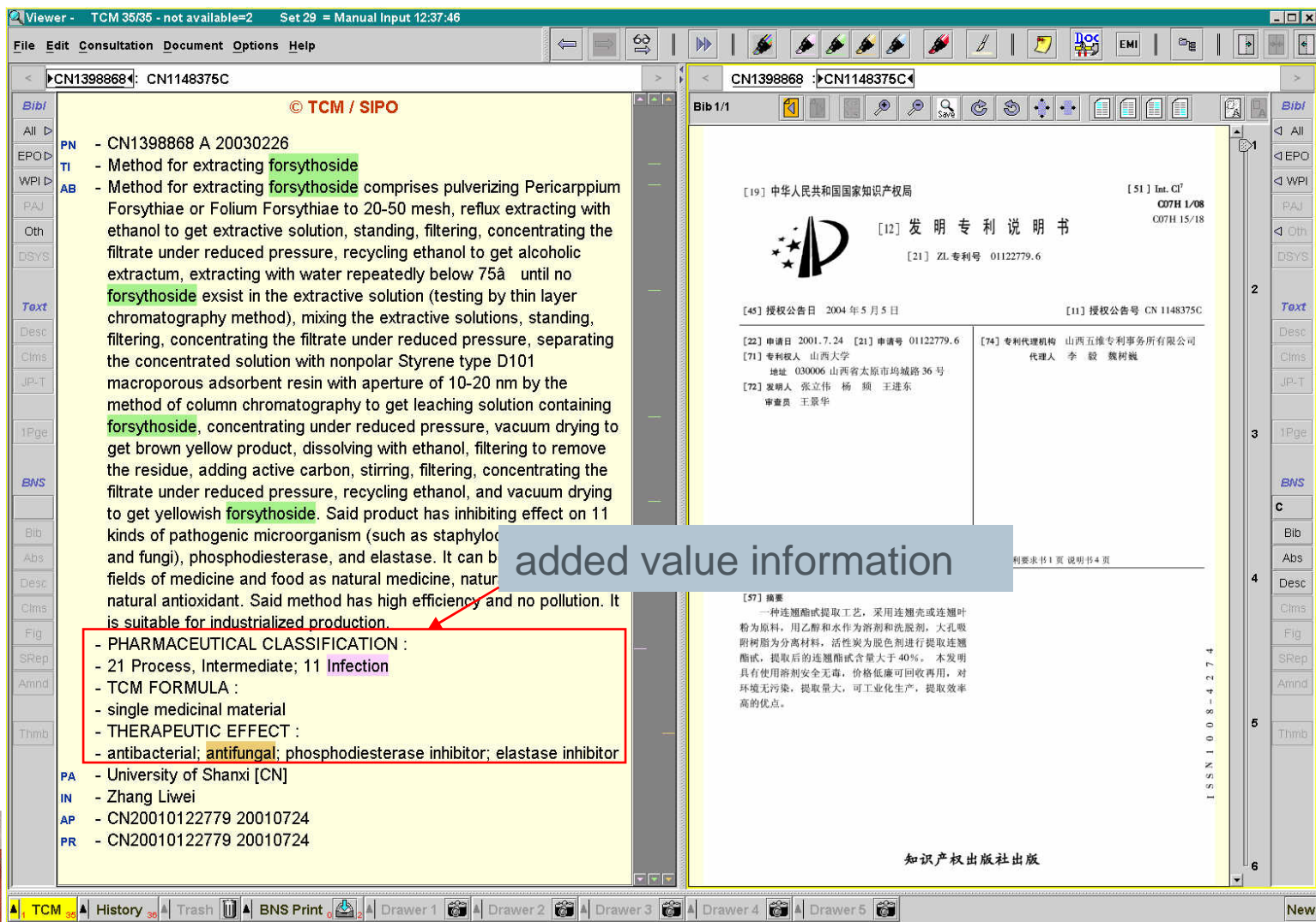
**52 531 documents** with information on abstract and

- Pharmaceutical classification
- Formulation process
- TCM formula
- Similar effect
- Therapeutic effect
- Side effect
- Formula

consultations on relevance in pharmaceutical fields



# TCM sample record (JViewer)



Viewer - TCM 35/35 - not available=2 Set 29 = Manual Input 12:37:46

File Edit Consultation Document Options Help

< CN1398868 : CN1148375C >

**Bibli**  
 All ▾  
 EPO ▾  
 WPI ▾  
 PAJ  
 Oth  
 DSYS  
**Text**  
 Desc  
 Clms  
 JP-T  
 1Pge  
**BNS**  
 Bib  
 Abs  
 Desc  
 Clms  
 Fig  
 SRep  
 Amnd  
 Thmb

© TCM / SIPO  
**PN** - CN1398868 A 20030226  
**TI** - Method for extracting forsythoside  
**AB** - Method for extracting forsythoside comprises pulverizing Pericarpium Forsythiae or Folium Forsythiae to 20-50 mesh, reflux extracting with ethanol to get extractive solution, standing, filtering, concentrating the filtrate under reduced pressure, recycling ethanol to get alcoholic extractum, extracting with water repeatedly below 75°C until no forsythoside exist in the extractive solution (testing by thin layer chromatography method), mixing the extractive solutions, standing, filtering, concentrating the filtrate under reduced pressure, separating the concentrated solution with nonpolar Styrene type D101 macroporous adsorbent resin with aperture of 10-20 nm by the method of column chromatography to get leaching solution containing forsythoside, concentrating under reduced pressure, vacuum drying to get brown yellow product, dissolving with ethanol, filtering to remove the residue, adding active carbon, stirring, filtering, concentrating the filtrate under reduced pressure, recycling ethanol, and vacuum drying to get yellowish forsythoside. Said product has inhibiting effect on 11 kinds of pathogenic microorganism (such as staphylococcus and fungi), phosphodiesterase, and elastase. It can be used in fields of medicine and food as natural medicine, natural antioxidant. Said method has high efficiency and no pollution. It is suitable for industrialized production.  
 - PHARMACEUTICAL CLASSIFICATION :  
 - 21 Process, Intermediate; 11 Infection  
 - TCM FORMULA :  
 - single medicinal material  
 - THERAPEUTIC EFFECT :  
 - antibacterial; antifungal; phosphodiesterase inhibitor; elastase inhibitor  
**PA** - University of Shanxi [CN]  
**IN** - Zhang Liwei  
**AP** - CN20010122779 20010724  
**PR** - CN20010122779 20010724

Bibl 1/1  
 [19] 中华人民共和国国家知识产权局 [51] Int. Cl.  
 [12] 发明专利说明书 07H 1/08  
 [21] ZL 专利号 01122779.6 07H 15/18  
 [45] 授权公告日 2004 年 5 月 5 日 [11] 授权公告号 CN 1148375C  
 [22] 申请日 2001.7.24 [21] 申请号 01122779.6 [74] 专利代理机构 山西五维专利事务所有限公司  
 [71] 专利权人 山西大学 地址 030006 山西省太原市坞城路 36 号 代理人 李毅 魏树斌  
 [72] 发明人 张立伟 杨 颖 王进东  
 审查员 王景华  
 权利要求书 1 页 说明书 4 页  
 [57] 摘要  
 一种连翘酯甙提取工艺, 采用连翘壳或连翘叶粉为原料, 用乙醇和水作为溶剂和洗涤剂, 大孔吸附树脂为分离材料, 活性炭为脱色剂进行提取连翘酯甙, 提取后的连翘酯甙含量大于 40%。本发明具有使用溶剂安全无毒, 价格低廉可回收再用, 对环境无污染, 提取量大, 可工业化生产, 提取效率高的优点。  
 知识产权出版社出版

added value information

1 2 3 4 5 6

1 2 3 4 5 6

TCM History Trash BNS Print Drawer 1 Drawer 2 Drawer 3 Drawer 4 Drawer 5 New



# Search Report



European Patent Office

SUPPLEMENTARY  
EUROPEAN SEARCH REPORT

Application Number  
EP 02 78 2647

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	JP 05 255367 A (FUKUYAMA, YASUO, JAPAN) 5 October 1993 (1993-10-05) * the whole document *	1-8	INV. A61K35/64 A61P31/00 A61K31/34
X,D	CN 1 059 338 A (WANG RIWEI) 11 March 1992 (1992-03-11) * abstract *	1-8	A61K47/06 A61K47/10 A61K47/44
Y	-----	1-9	A61K47/46 A61P31/06
Y,D	CN 1 073 096 A (WANG RIWEI) 16 June 1993 (1993-06-16) * abstract *	1-9	A61P31/12 A61P31/18
Y	GB 1 001 949 A (FRIEDRICH MEYER) 18 August 1965 (1965-08-18) * the whole document *	1-9	
A	EP 0 956 859 A (KARITA, TAKESHI) 17 November 1999 (1999-11-17) * the whole document *	1-5	
A	EL-FIKY F K: "CYTOTOXIC AND ANTIVIRAL ACTIVITIES OF TWENTY-NINE ISOLATED NATURAL COMPOUNDS" ALEXANDRIA JOURNAL OF PHARMACEUTICAL SCIENCES, ALEXANDRIA, EG, vol. 15, no. 1, March 2001 (2001-03), pages 70-73, XP009064288 ISSN: 1110-1792 * the whole document *	1,2,5	TECHNICAL FIELDS SEARCHED (IPC) A61K A61P
P,A	WO 01/95900 A (AD "ZDRAVLJE" FARMACEUTSKO - HEMIJSKA INDUSTRIJA, CENTAR ZA ISTRAZIVAN) 20 December 2001 (2001-12-20) * the whole document *	1-5	

## XPTK database (Indian Traditional Knowledge)

- loaded in August 2005
- 27 129 documents
- published by NISCAIR
- main sources:
  - **IJTK** (Indian Journal of Traditional Knowledge)
  - **MAPA** (Medicinal and Aromatic Plants Abstracts)
  - **IJTK + MAPA belong to PCT-minimum**
  
- TKDL** (Traditional Knowledge Digital Library) access granted to this source by India to the EPO in Feb. 2009:
  - **92 authoritative textbooks on ayurvedic medicine**
  - **Nearly 150,000 ayurvedic, unani and siddha medicines**
  - **TKRC (Traditional Knowledge Resource Classification)**



## XPTK sample record (EPOQUE search system)

AN - **XP018003678**  
DT - Formulations  
PUB - Traditional Knowledge Resource - Formulation  
- **Known Since 1000 Years**  
- NISCAIR New Delhi India  
TI - Bhallatakasothantakalepah (1)  
TXT - DETAILS OF PROCESS / FORMULATION :  
1. Bhallatakasothantakalepah (1) is a therapeutic single / compound formulation consisting of useful parts of following ingredient(s) :  
Ficus religiosa Linn. (peepul **tree**)  
  
2. Therapeutic composition / formulation is mentioned below :  
Table:  
<tb> 1 <sep> A01A-1-857: Ficus religiosa Linn. (peepul **tree**)  
<sep>Stem bark <sep> <sep>-Decoction / Water extract <sep>- <sep>Q.S  
  
3. The dose of the above mentioned therapeutic composition is as directed by physician.  
  
4. Mode of administration Irrigation .  
  
5. It is useful in the treatment of Oedema / **Inflammation** , due to Semecarpus anacardium Linn.f. , **Poisoning**  
REF - [1] Naginadasa Chaganalala Saha Bharata Bhaisajya Ratnakara - Translated by Gopinath Gupta - Vol.-III : B. Jain Publishers, New Delhi, Edn. 2nd. Reprint, August 1999. Prior Art pp. 654

# Use of XPTK

## INTERNATIONAL SEARCH REPORT

International application No

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>DATABASE XPTK Traditional Knowledge Resource - Formulation known since 200 years, NISCAIR New Delhi India; 1999, "Sothankuso" XP002488155 retrieved from XPTK Database accession no. 18003632 abstract</p>	5-7, 15-22
Y	<p>DATABASE XPTK Traditional Knowledge Resource - Formulation known since 1000 years, NISCAIR New Delhi India; 2000, "Sathyadikalkah" XP002488107 retrieved from XPTK Database accession no. 18003591 abstract</p>	5-7, 15-22
Y	<p>SEKAR S: "Traditional alcoholic beverages from Ayurveda and their role on humanhealth" INDIAN JOURNAL OF TRADITIONAL KNOWLEDGE,</p>	5-7, 15-22

# TKDL - Traditional Knowledge Digital Library



## Traditional Knowledge Digital Library

- About TKDL
- FAQ
- TKRC
- Bio-Piracy
- Source of Information
- Feedback
- TKDL in Media
- TKDL Outcomes against bio-piracy
- Major Milestones
- Contact Us
- Related Sites

Select Language ▼



**Collaborative Project of**  
Council of Scientific & Industrial Research (CSIR)  
Department of Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homeopathy (AYUSH)

**Welcome EPO Users**


Best Viewed with Internet Explorer 6.0 with a resolution of 1024 x 768

[Conditions of Use](#) | [General Information](#)

<http://www.tkdl.res.in/tkdl/langdefault/common/home.asp?GL=Eng>



## Example of TKDL citations

		<b>SUPPLEMENTARY EUROPEAN SEARCH REPORT</b>		Application Number EP 04 78 0744
DOCUMENTS CONSIDERED TO BE RELEVANT				
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)	
L,X	WO 95/10292 A (CALIFORNIA BIOMEDICA INC [US]) 20 April 1995 (1995-04-20) L: Priority * the whole document * -----	1-18	INV. A61K38/16 C07K14/415	
X	US 5 980 902 A (SHANMUGASUNDARAM EDAYATIMANGAL [IN] ET AL) 9 November 1999 (1999-11-09) * columns 4-10 * -----	1-18		
P,L, X	US 2004/091559 A1 (CHATTERJI ARUN K [US]) 13 May 2004 (2004-05-13) L: Priority * the whole document * -----	1-18		
X	ANONYMOUS: "Madhumeha Vinasini Vatika" KEY ATTRIBUTES OF TKDL AK15/200, 1953, pages 1-3, XP003025246 * the whole document *	1,5,6		

## 13 applications where a TKDL document has been cited by the examiner

- Ophthalmic formulation for the treatment and prevention of pterygium
- Process for the preparation of herbal extract of cassia tora leaves for treating anxiety disorders
- A topical composition comprising extracts of a. indica and m. charantia or s. indicum
- Preparation for treatment of a pulmonary disease
- A synergistic ayurvedic / functional food bioactive composition
- Senescence inhibitor
- Herbal composition for treatment of infections caused by dermatophytes
- Compositions and methods for using juice organic, juice based skin care products
- Method of treatment or management of stress
- A pharmaceutical composition for treating depression and method for preparation thereof
- Citrus fruit skin extract for angiogenesis promotion
- Medicine and food/beverage for ameliorating hyperglycemia
- Compositions for diabetes treatment and prophylaxis

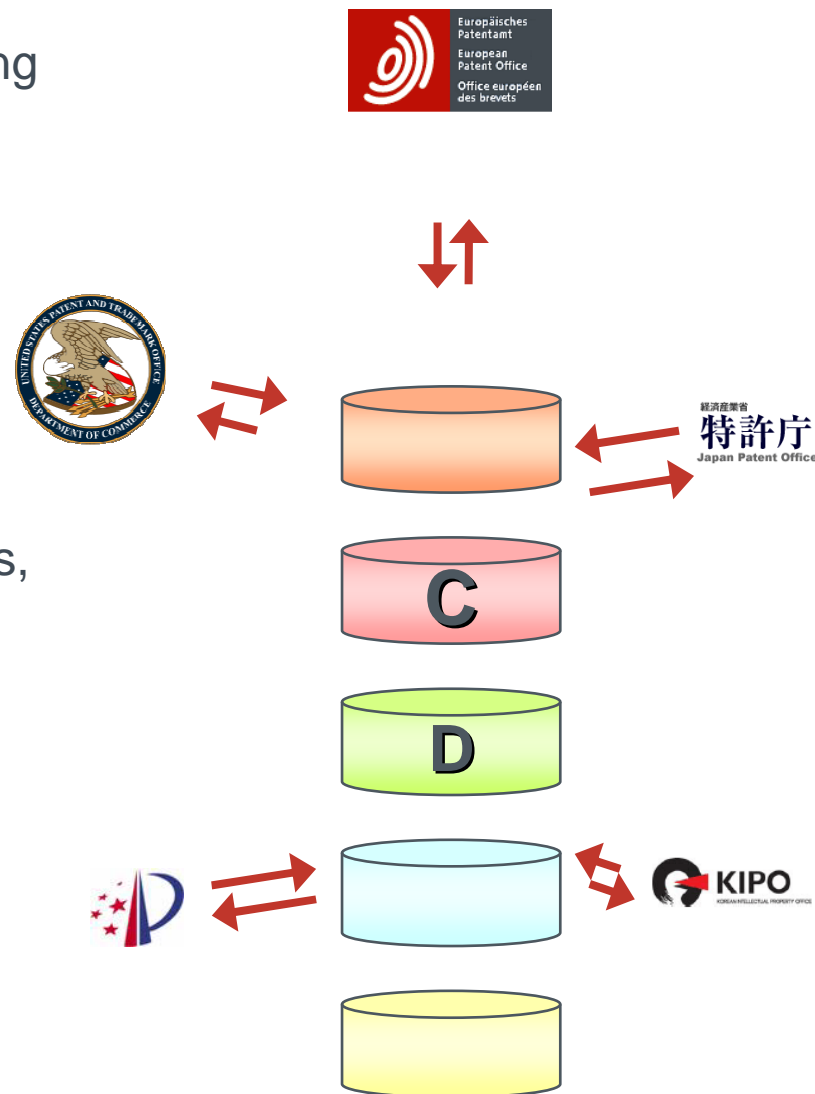
## Improving TKDL's use

- 73 files do have TKDL references mainly via Art. 115
- Ideally, such a database should be searchable in our integrated search system.
  - This is the best guarantee to have TKDL systematically searched.
  - Would offer all search possibilities in an integrated environment.



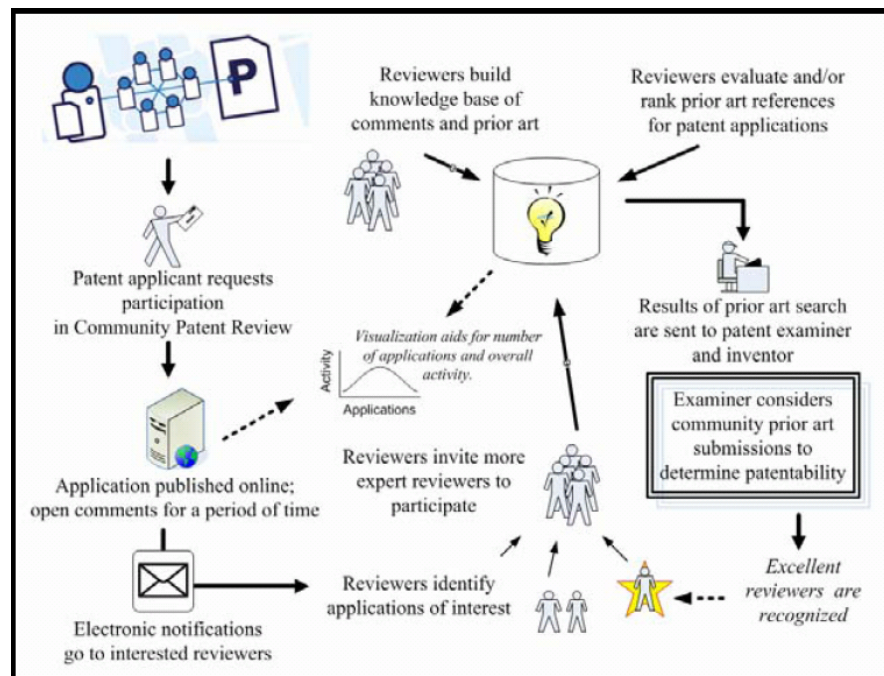
# On the international front: IP5 Foundation Projects

- Common Documentation aims at sharing the same searched prior art collections amongst the 5 Offices (CIPO, EPO, JPO, KIPO and USPTO).
- Specific databases are in the scope of Common Documentation including TK.
- For TK: consolidating our TK collections, agree on the specific databases to be shared and procure them (public, non-public).
- TKDL is considered.



## TK a good candidate for innovative approaches like Patent Peer reviewing

- There is strong interest to pay attention to those patents
- TK data are not necessarily easily available and accessible in view of their language, age and format.





## Methods and compositions for inhibiting the infectious activity of viruses: US4742046 / MEDISEARCH SA [CH]

### I claim:

- 1.** A method of treatment or prophylaxis for animals and man suffering from, or exposed to, a disease induced by an influenza virus which consists of administering a virus-inhibiting amount of a pharmaceutical composition comprising a non-toxic lectin selected from the group consisting of *Sambucus nigra agglutinin I* and *Sambucus nigra agglutinin II* to said animals or humans.
- 2.** A method according to claim 1 wherein said non-toxic lectin is *Sambucus nigra agglutinin I*.

# Thank You

"The art of medicine consists of amusing the patient while nature cures the disease"  
**Voltaire**