

WHAT DO INDIGENOUS PEOPLES AND
LOCAL COMMUNITIES NEED TO KNOW
ABOUT THE PATENT SYSTEM?

PROFESSOR MARGO A. BAGLEY

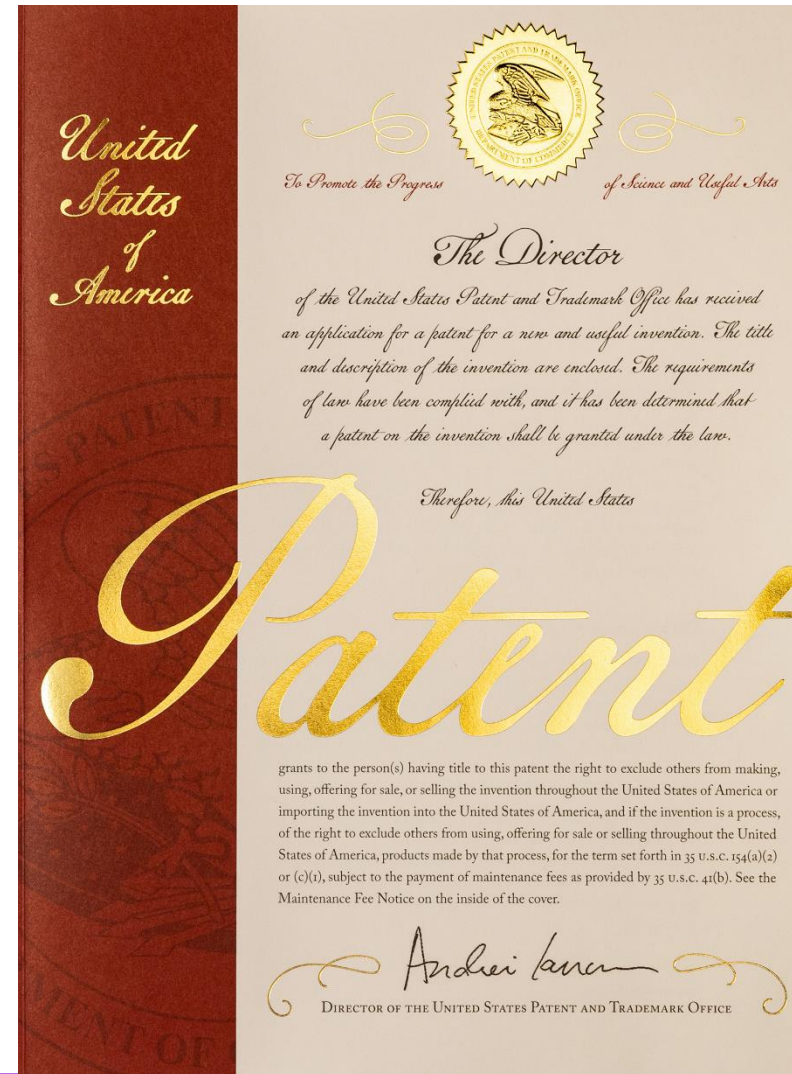
ASA GRIGGS CANDLER PROFESSOR OF LAW

EMORY UNIVERSITY SCHOOL OF LAW

PATENT FEATURES

What is a patent? A property right

- Nature of the property right?
 - Negative right to exclude others from making, using, selling, or offering to sell invention;
 - Territorial: must obtain patent in every country where protection is desired
 - Personal property: can be bought, sold, licensed, bequeathed, etc.
- Limited term: ~20 years



NO GLOBAL PATENT

Patent rights are territorial (must be obtained and enforced in each country/region)

Rules vary by country
International treaties facilitate multi-country filings



TYPES OF PATENTS

(NOT AVAILABLE IN ALL COUNTRIES)

Utility/Invention Patents (longest term):

- For machines, processes, articles of manufacture or compositions

Design Patents/Industrial Design Rights:

- For ornamental or aesthetically pleasing designs

Utility Models (not U.S.):

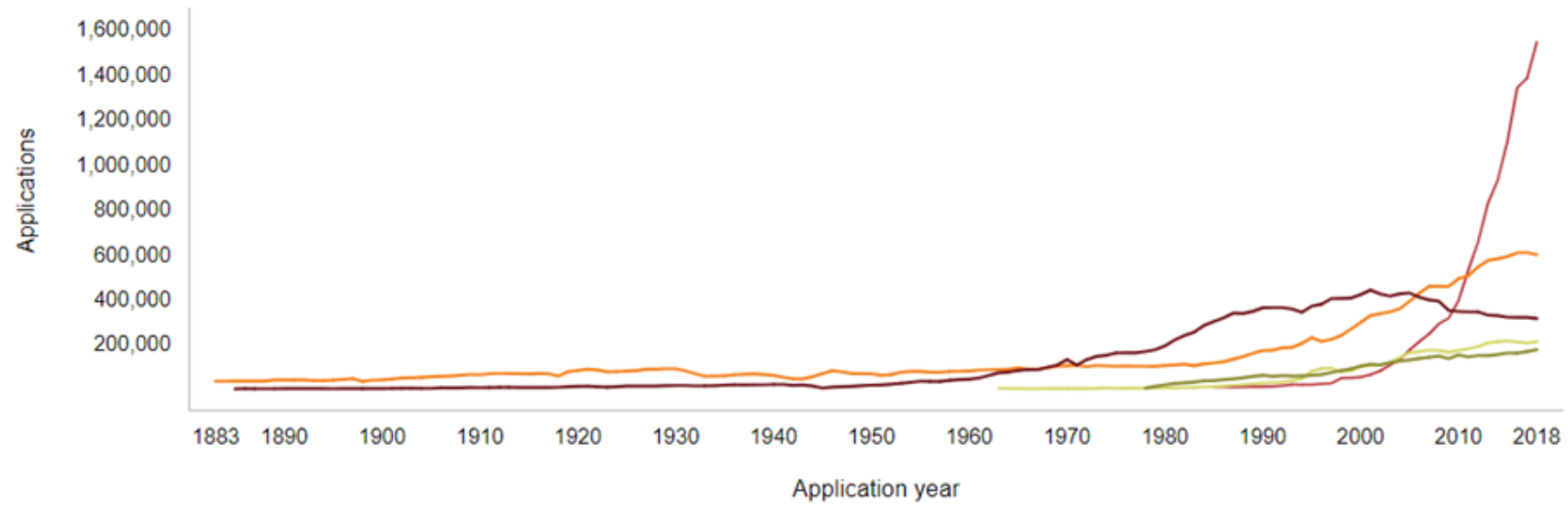
- Relating to form or structure of a product

Plant Patents:

- For asexually reproducible plants

PATENT APPLICATION TRENDS (WIPO)

Trend in patent applications for the top five offices, 1883–2018



■ CHINA ■ U.S. ■ JAPAN ■ REPUBLIC OF KOREA ■ EPO

Note: The IP office of the Soviet Union, not represented in this figure, was the leading office in the world in terms of filings from 1964 to 1969. Like Japan and the U.S., the office of the Soviet Union saw stable application numbers until the early 1960s, after which it recorded rapid growth in the number of applications filed.

Source: Figure A7.

PATENT OPPORTUNITIES

- Expand Knowledge/MAKE MONEY
 - **Monopoly pricing potential** (single source)
 - **Licensing patents** (revenue stream)
 - **Sale/auction** (cash infusion)
 - **Leverage** (cross-licensing, settle litigation)
 - **Enforcement** (patent infringement damages)
 - **Investment** (venture capital funds)
 - **Recognition** (inventor/community contribution)

IMPORTANCE OF PATENTS FOR STARTUPS (AND IPLCS!)

Patents facilitate venture capital investment

Patents can help a startup defend itself

Patents may help a startup stop theft of its innovations by larger rivals

Patents can help a startup increase market share

Patents can increase the chances that a startup will be acquired

Startups with IP achieve greater long-term success

PATENTABILITY REQUIREMENTS

- **(Utility Patents):**
- **Type** (machine, composition of matter, article of manufacture, process)
- **Utility/Industrial Applicability** – useful, functional
- **Novelty** –new, not before known
- **Nonobviousness/Inventive Step** –to person of ordinary skill in the art
- **Proper Description (enabling disclosure)**



(12) **United States Patent**
Sample et al.

(10) **Patent No.:** **US 9,403,786 B2**
 (45) **Date of Patent:** **Aug. 2, 2016**

(54) **ANTI-INFLAMMATORY COMPOUNDS**

(75) **Inventors:** **Susan J. Semple**, Mylor (AU); **Bradley S. Simpson**, Highbury (AU); **Ross Allan McKinnon**, Eden Hills (AU); **David Claude**, Cairns (AU); **Jacobus P. Gerber**, Eden Valley (AU); **Jiping Wang**, Felixstow (AU); **George Moreton, Sr.**, Cairns (AU)

(73) **Assignees:** **University of South Australia**, Adelaide, S.A. (AU); **Chuulangun Aboriginal Corporation**, Queensland (AU)

(*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 1120 days.

(21) **Appl. No.:** **13/509,194**

(22) **PCT Filed:** **Nov. 10, 2010**

(86) **PCT No.:** **PCT/AU2010/001502**
 § 371 (c)(1), (2), (4) **Date:** **Aug. 6, 2012**

(87) **PCT Pub. No.:** **WO2011/057332**
PCT Pub. Date: **May 19, 2011**

(65) **Prior Publication Data**
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(30) **Foreign Application Priority Data**
 Nov. 10, 2009 (AU) 2009905498

(51) **Int. Cl.**
C07D 307/42 (2006.01)
C07D 307/54 (2006.01)

(52) **U.S. Cl.**
 CPC **C07D 307/42** (2013.01); **C07D 307/54** (2013.01)

(58) **Field of Classification Search**
 None
 See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS
 6,143,303 A 11/2000 Janakiram et al.

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WO 2011/057327 A1 5/2011

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 Simpson, B.S., Chemical and Pharmacological Investigation of Dodonaea Polyandra, Ph.D. Thesis, Division of Health Science, School of Pharmacy and Medical Sciences, University of South Australia (2011).
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 Zdero, C. et al., Clerodane Derivatives From Diplostegium, *Phytochemistry*, vol. 31 (1), 213-216, (1992).

* cited by examiner

Primary Examiner — Golam M M Shameem
Assistant Examiner — Laura Daniel
 (74) *Attorney, Agent, or Firm* — Olson & Cepuritis, Ltd.

(57) **ABSTRACT**

New clerodane compounds isolated from plant material from *Dodonaea polyandra* are disclosed. The compounds have anti-inflammatory activity. Pharmaceutical and cosmetic compositions containing the compounds, as well as methods of treating inflammation using the compounds, are also disclosed.

17 Claims, 16 Drawing Sheets

PATENTABILITY REQUIREMENTS

(Utility Patents):

- **Type** (machine, composition of matter, article of manufacture, process)
- **Utility/Industrial Applicability** – useful, functional
- **Novelty** –new, not before known
- **Nonobviousness/Inventive Step** –to person of ordinary skill in the art
- **Proper Description (enabling disclosure)**

A composition comprising a compound according to claim 1 and a pharmaceutically acceptable carrier.

16. A method of treating inflammation in a subject, the method comprising administering to the Subject a therapeutically effective amount of a compound according to claim 1.

17. A method of treating inflammation, the method comprising administering to a subject in need of such treatment a therapeutically effective amount of an extract according to claim 13.

NOVELTY/INVENTIVE STEP REQUIREMENTS MAY NOT BE BARRIERS FOR NEW TK

- All TK is not old. Modifications of old knowledge may be protectible by patent if displays an inventive step over the original publicly known knowledge
- “Knowledge is not ‘traditional’ because of its object, nor its subject matter or content, nor its **age or antiquity**, nor its aesthetic qualities. What makes it traditional is **the way it has been preserved and transmitted between generations within a community**: ‘its nature relates to **the manner [in which] it develops rather than to its antiquity**’ The essential characteristics of traditional knowledge are its **linkage with a traditional community as such and its dynamic, intergenerational quality.**”
Antony Taubman and Matthias Leister, Analysis of Different Areas of Indigenous Resources: Traditional Knowledge (2008)

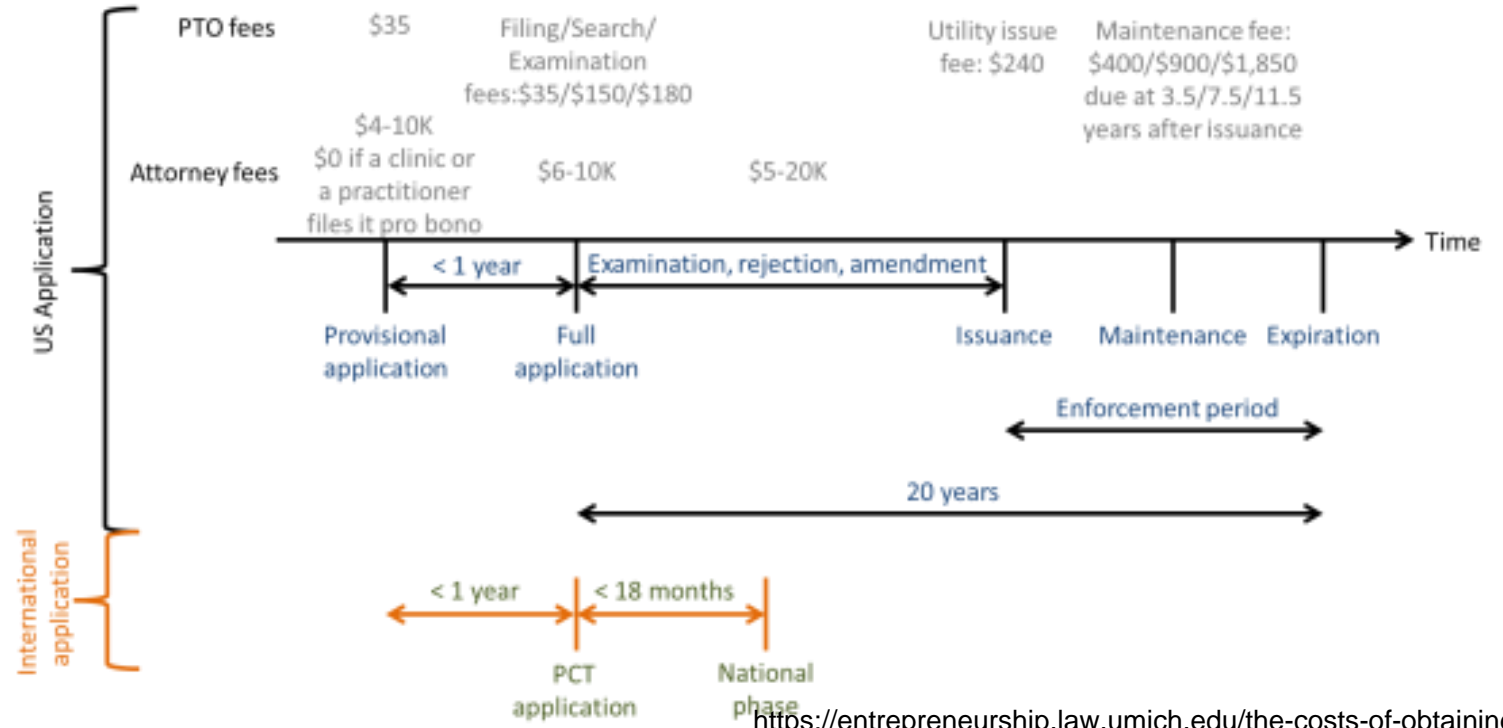
WHO CAN OBTAIN A PATENT?

AN INVENTOR OR OWNER (ASSIGNEE)

- To be an inventor, a person must contribute to the **conception** (mental part of invention) of at least part of one claim in a patent
- Joint inventors must have **some collaboration or connection** even if they did not work together or at the same time
- Patents have the attributes of personal property so they can be bought, sold, inherited, etc.
- IPLC Community can be the **owner**, member(s) who conceive of the invention would be the **inventors**

**HOW MUCH DOES PATENT
PROTECTION COST?**

Estimated Cost



<https://entrepreneurship.law.umich.edu/the-costs-of-obtaining-patent-protection/>

- The cost for patent protection varies based on a number of factors including the type of patent you seek to obtain and in how many countries.

Some countries have reduced filing fees for small entity inventors, but the bulk of the costs tends to be attorney fees. Also, costs do not stop at obtaining the patent.

- You may need to be able to work the patent in the countries where you have protection
- You should be able to afford to enforce your patent

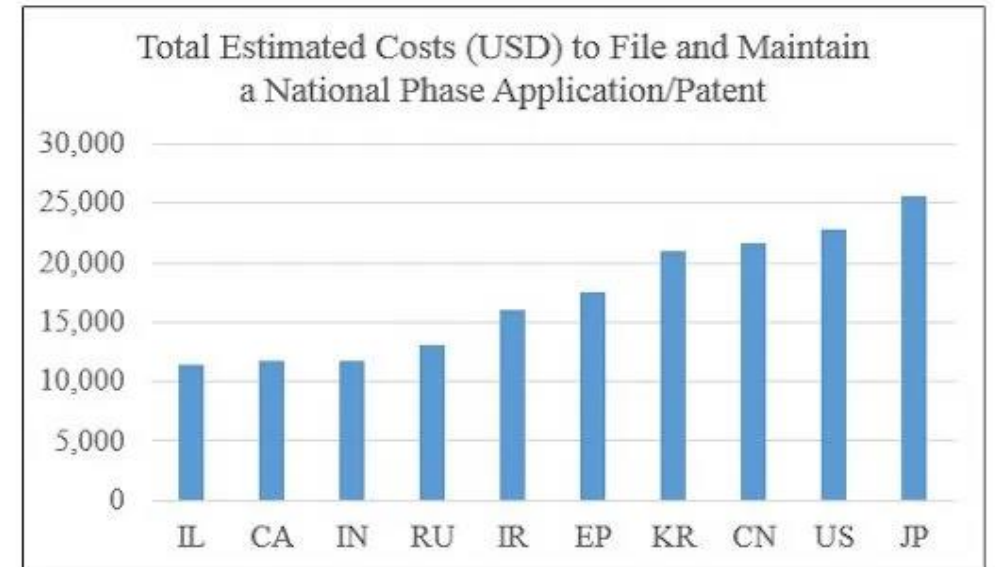


Figure 1

COSTS OF KEEPING A PATENT IN FORCE

Table 1: Total Estimated Patent Maintenance Fees in USD

Jurisdiction	Estimated Patent Maintenance Fees
China	3,580
Chile	1,533
Israel	3,295
Malaysia	2,865
Mexico	2,295
Japan	1,859
South Korea	3,533
USA	5,980

PRO BONO ASSISTANCE TO AN INDIGENOUS INVENTOR

- Lucas Tyree, environmental scientist, member of the Monacan tribe of Virginia
- Assisted pro bono by Jorge Goldstein, co-founder, Sterne, Kessler, Goldstein, and Fox patent law firm
- Invention on foliar hydroponic feeding formulations that allow the growth of vegetables at lower cost. Lucas's invention is currently being used to grow food in his Native American community, where healthy, inexpensive food can be scarce.



US 20190127286A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2019/0127286 A1**
TYREE (43) **Pub. Date: May 2, 2019**

(54) **FOLIAR FEEDING FORMULATION AND METHODS OF USE**

(71) Applicant: **Lucas TYREE**, Lexington, VA (US)

(72) Inventor: **Lucas TYREE**, Lexington, VA (US)

(21) Appl. No.: **15/755,422**

(22) PCT Filed: **Aug. 30, 2016**

(86) PCT No.: **PCT/US16/49416**

§ 371 (c)(1),
 (2) Date: **Feb. 26, 2018**

Related U.S. Application Data

(60) Provisional application No. 62/212,358, filed on Aug. 31, 2015, provisional application No. 62/339,329, filed on May 20, 2016.

Publication Classification

(51) **Int. Cl.**
C05B 7/00 (2006.01)
C05G 3/06 (2006.01)
C05G 3/00 (2006.01)
A01G 7/00 (2006.01)
A01G 31/00 (2006.01)
A01G 22/15 (2006.01)

(52) **U.S. Cl.**
 CPC *C05B 7/00* (2013.01); *C05G 3/06* (2013.01); *C05G 3/0076* (2013.01); *A01G 24/15* (2018.02); *A01G 31/00* (2013.01); *A01G 22/15* (2018.02); *A01G 7/00* (2013.01)

(57) **ABSTRACT**

Described is a hydroponic system wherein a feed formulation comprising a plant's nutritionally required mineral nutrients is applied to the foliage of the plant and the roots of the plant are in contact with an incomplete water solution that may comprise only hydrogen and oxygen. The feed formulation, methods of feeding a plant or plant seed, and plants produced thereby are also described.



Inventor Assistance Program

The Inventor Assistance Program (IAP) – a WIPO initiative in cooperation with the World Economic Forum – is the first global program to match developing country inventors and small businesses with limited financial means with patent attorneys. These experts provide pro bono legal assistance to help inventors secure patent protection.

Participating countries – Colombia, Ecuador, Morocco, Peru, the Philippines, South Africa.

FEATURED



Video: Interview with Mr. Ivan Rizo Tello, awarded inventor under the IAP.

Get involved



Pro bono attorneys – Work with the IAP

Through the IAP, pro bono attorneys and patent specialists can provide a free kick-start to the use and development of the patent system in developing countries. Their work helps spur innovation at the grassroots level and also allows them to develop their professional skills in new, rewarding ways.

- ▶ [Who can apply?](#)
- ▶ [How can I apply?](#)



Inventors – Benefit from IAP help

Inventors working in any technological field can benefit from expert support to help them use the patent system.

A patent allows inventors/companies to gain valuable exclusivity over a new product or process. In developing countries however, few local inventors venture into the world of patents and those who do so without legal support often fail at the first steps due to formal errors.

- ▶ [Who can apply?](#)
- ▶ [How can I apply?](#)



Online self-check course for inventors

WIPO has developed a dedicated online course to help first-time inventors decide whether their invention fulfills patentability requirements. The course is free of charge and anyone who wishes can take it.

For inventors without a pending patent application, passing the online course is a prerequisite for working jointly with a pro bono patent attorney through the IAP.

[Read our FAQs on the IAP](#) for more information.

COLLABORATIONS
WITH ACADEMIC,
GOVERNMENT, OR
NGOS TO
VALORIZE TK AND
TC E INNOVATIONS



US009403786B2

(12) **United States Patent**
Semple et al.

(10) **Patent No.:** US 9,403,786 B2
(45) **Date of Patent:** Aug. 2, 2016

(54) **ANTI-INFLAMMATORY COMPOUNDS**

(75) Inventors: **Susan J. Semple**, Mylor (AU); **Bradley S. Simpson**, Highbury (AU); **Ross Allan McKinnon**, Eden Hills (AU); **David Claudie**, Cairns (AU); **Jacobus P. Gerber**, Eden Valley (AU); **Jiping Wang**, Felixstow (AU); **George Moreton, Sr.**, Cairns (AU)

(73) Assignees: **University of South Australia**, Adelaide, S.A. (AU); **Chuulangun Aboriginal Corporation**, Queensland (AU)

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(21) Appl. No.: 13/509,194

(22) PCT Filed: Nov. 10, 2010

(86) PCT No.: PCT/AU2010/001502

§ 371 (c)(1),
(2), (4) Date: Aug. 6, 2012

(87) PCT Pub. No.: WO2011/057332

PCT Pub. Date: May 19, 2011

(65) **Prior Publication Data**

US 2013/0053437 A1 Feb. 28, 2013

(30) **Foreign Application Priority Data**

Nov. 10, 2009 (AU) 2009905498

(51) **Int. Cl.**

C07D 307/42 (2006.01)

C07D 307/54 (2006.01)

(52) **U.S. Cl.**

CPC C07D 307/42 (2013.01); C07D 307/54 (2013.01)

(58) **Field of Classification Search**

None
See application file for complete search history.

(56) **References Cited**

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WO 2011/057327 A1 5/2011

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Harvard Health Publications: Harvard Medical School "Foods that fight inflammation". Jul. 1, 2014. Web <http://www.health.harvard.edu/staying-healthy/foods-that-fight-inflammation>.*

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Pandey, U.C. et al., Stereochemistry of Strictic Acid and Related Furan-Diterpenes from *Conyza Japonica* and *Grangea Maderaspatana*, *Phytochemistry*, vol. 23 (2), 391-397, (1984).

Simpson, B.S., Chemical and Pharmacological Investigation of *Dodonaea Polyandra*, Ph.D. Thesis, Division of Health Science, School of Pharmacy and Medical Sciences, University of South Australia (2011).

Wilson, S.R. et al., The Chemistry of the Euphorbiaceae. A New Diterpene from *Croton Californicus*, *Journal of the American Chemical Society*, vol. 98 (12), 3669-3674, (1976).

Zdero, C. et al., Clerodane Derivatives From *Diplostegium*, *Phytochemistry*, vol. 31 (1), 213-216, (1992).

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Primary Examiner — Golam M M Shameem

Assistant Examiner — Laura Daniel

(74) *Attorney, Agent, or Firm* — Olson & Cepuritis, Ltd.

(57) **ABSTRACT**

New clerodane compounds isolated from plant material from *Dodonaea polyandra* are disclosed. The compounds have anti-inflammatory activity. Pharmaceutical and cosmetic compositions containing the compounds, as well as methods of treating inflammation using the compounds, are also disclosed.

17 Claims, 16 Drawing Sheets

COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH (CSIR)

- Parastatal, organized by Act of Parliament in 1945
- works with educational and research institutions, private sector companies, and local communities, on projects across a range of scientific fields including biosciences, health, energy, defense,
- the largest research organization on the African continent
- employs approximately 2000 science engineering and technical staff
- Various groups within CSIR informally act as a “small business facilitator” for IPLCs



COLLABORATIONS WITH ACADEMIC, GOVERNMENT, OR NGOS TO VALORIZE TK AND TCE INNOVATIONS

- CSIR has provided assistance to TK holders with:
 - Scientific validation
 - IP protection (patent filing)
 - license agreement negotiation
 - Commercial partner identification
 - And more

REPUBLIC OF SOUTH AFRICA
PATENTS ACT, 1978

FORM P.8
(to be lodged in duplicate)

A&A Ref: 131100 EduP/ek

PUBLICATION PARTICULARS AND ABSTRACT
(Section 32(3)(a) - Regulations 22(1)(g) and 31)

21	01	PATENT APPLICATION NO	22	LODGING DATE	43	ACCEPTANCE DATE
		96/5853		13 July 1995		13.1.97

51	INTERNATIONAL CLASSIFICATION	NOT FOR PUBLICATION
	A61K; A01N; C07C	CLASSIFIED BY: ADAMS & ADAMS

71	FULL NAME(S) OF APPLICANT(S)
	CSIR

72	FULL NAME(S) OF INVENTOR(S)
	ELSIE AMANDA DORFLING ILANA MOUTON

EARLIEST PRIORITY CLAIMED	COUNTRY	NUMBER	DATE
	33 ZA	31 94/2540	32 13 APRIL 1994

NOTE: The country must be indicated by its International Abbreviation - see schedule 4 of the Regulations

54	TITLE OF INVENTION
	INSECT REPELLENTS

57	ABSTRACT (NOT MORE THAN 150 WORDS)
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NUMBER OF SHEETS	54
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The sheet(s) containing the abstract is/are attached.

If no classification is furnished, Form P.9 should accompany this form.
The figure of the drawing to which the abstract refers is attached.

A&A P208

ECONOMIC DEVELOPMENT FOR COMMUNITIES THROUGH COLLABORATIVE EXPLOITATION OF IPLC TK: SOUTH AFRICA'S FEVER TREE

- Traditional healers (THC) shared TK regarding the *Lippia javanica* plant (also known as “Lemon Bush” or “Fever Tree”) which contains compounds with antiseptic, anti-inflammatory, and insect repellent activity, with CSIR
- CSIR researchers confirmed the insect-repellent effects of *Lippia javanica*, obtained a patent, established a community enterprise based on the commercial cultivation of the plant, helped the community find an industry partner to develop and commercialize an insect repellent candle from the discovery. Project has created at least 35 jobs, providing employment and tech transfer for members of the Maswanganyi and Mabunda communities
- Benefit sharing agreement between THC and CSIR specifies that six percent of the royalty CSIR receives from its separate license to the manufacturer, relating to sales of the mosquito repellent candles sold under the “Fever Tree” brand, goes to the THC for distribution to the knowledge holder communities



ECONOMIC DEVELOPMENT FOR COMMUNITY THROUGH COLLABORATIVE EXPLOITATION OF IPLC TK: MONATIN

- TK regarding sweetening power of Molomo Monate, a plant containing Monatin, a non-caloric natural sweetener purported to have between 1400 and 3000 times the sweetening power of cane sugar
- CSIR researchers entered ABS agreement with TK holders, investigated the properties of the plant, obtained patent protection, and negotiated a license agreement with U.S.-based multinational food additive giant Cargill (for use in soft drinks).
- In 2012, CSIR also procured one of the first bioprospecting permits granted by the DEA and identified the relevant indigenous knowledge holding communities for benefit sharing
- Seleka and Shongoane indigenous communities of Lephalale in Limpopo Province receive ten percent of CSIR's milestone and royalty licensing income (five percent per community) to be paid into the national Bioprospecting Trust Fund for distribution to the communities.
- In 2015 CSIR deposited 2.6 million ZAR from milestone payments into the fund and the monies were distributed to the communities in 2016.



US 20060252135A1

(19) **United States**
 (12) **Patent Application Publication** (10) **Pub. No.: US 2006/0252135 A1**
Brazeau et al. (43) **Pub. Date: Nov. 9, 2006**

(54) **POLYPEPTIDES AND BIOSYNTHETIC PATHWAYS FOR THE PRODUCTION OF STEREOISOMERS OF MONATIN AND THEIR PRECURSORS**
 (75) Inventors: **Brian J. Brazeau**, Oskaloosa, IA (US); **Ellen Burke**, San Diego, CA (US); **Mervyn DeSouza**, Plymouth, MN (US); **Steven J. Gort**, Brooklyn Center, MN (US); **Paula M. Hicks**, Eden Prairie, MN (US); **Sherry R. Kollmann**, Maple Grove, MN (US); **Peter Luginbuhl**, San Diego, CA (US); **Sara C. McFarlan**, St. Paul, MN (US); **Toby Richardson**, San Diego, CA (US); **Fernando A. Sanchez-Riera**, Eden Prairie, MN (US); **Christopher Solheid**, Minneapolis, MN (US); **David Weiner**, Del Mar, CA (US); **Lishan Zhao**, Carlsbad, CA (US)

(21) Appl. No.: 11/411,229
 (22) Filed: Apr. 26, 2006
Related U.S. Application Data
 (60) Provisional application No. 60/674,932, filed on Apr. 26, 2005.

Publication Classification
 (51) **Int. Cl.**
C12N 9/10 (2006.01)
C12P 13/22 (2006.01)
C12N 1/21 (2006.01)
 (52) **U.S. Cl.** **435/108**; 435/193; 435/252.3

(57) **ABSTRACT**

Monatin and certain stereoisomers of monatin, such as R,R monatin and S,R monatin, as well as salts thereof, are produced using polypeptides and biosynthetic pathways. These polypeptides and biosynthetic pathways are also useful in the production of R-2-hydroxy-2-(indoly-3-ylmethyl)-4-keto glutaric acid, an intermediate that is formed in certain monatin synthesis pathways, including some biosynthetic pathways.

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HOW CAN PATENTS ON TK/TCEs BE CHALLENGED?

- Patents may be improperly obtained by third parties on IPLC TK
- Opposition/reexamination (in patent office)
- Litigation (more expensive)
 - In both cases need evidence or prior public knowledge/use of the TK/TCE

TKDL Reference from U.S. Patent Application No. 13/582,133 File Wrapper

- Claims to Sandalwood oil compositions for cancer treatment

Certain claims rejected based on entries from Indian Traditional Knowledge Digital Library (TKDL)

TKDL references (containing additional information) were provided to the applicant and made available to the public as part of the file history for the application

If no positive legal protection against use of such TK, third parties could use it freely, even if they could not patent it directly.



Key Attributes of TKDL

BA4/1084C



Title of Traditional Knowledge Resource

Knowledge Known Since

Tila

200 years

TKRC CODE :

A01A-1/1483, A01A-1/1720, A01A-1/251, A01A-1/473, A01A-1/754, A01B-1/23, A01C-1/14, B01B-5/196, B01C-1/160, B01C-1/172, B01C-1/273, B01D-20/21, B01F-1/26, B01G-1/195

IPC Code :

A61K 33/06, A61K 33/28, A61K 35/20, A61K 36/185, A61K 36/481, A61K 36/54, A61K 36/67, A61K 36/906, A61P 35/00, C01B 33/22

DETAILS OF PROCESS / FORMULATION :

1. Tila is a therapeutic single / compound formulation consisting of useful parts of following ingredient(s) : dog, Calomel/Subchloride of mercury, Soap stone/talc/ steatites/Hydrated magnesium silicate, * Elettaria cardamomum (Linn.) Maton (cardamom, Lesser Cardamom), Astragalus sarcocolla, Cinnamomum camphora (Linn.) J. Presl (camphor laurel, camphor tree, camphortree, Camphor), Cinnabar, **Santalum album Linn. (sandalwood)**, Piper nigrum Linn. (Black Pepper), Clarified butter

2. Therapeutic composition / formulation is mentioned below :

	Tongue	to	form	numbers
1 dog	-	-	-	2 gm
2 Calomel/Subchloride of mercury	-	-	-	2 gm
3 Soap stone/talc/ steatites/Hydrated magnesium silicate	-	-	-	2 gm
4 *	-	-	-	2 gm
5 Elettaria cardamomum (Linn.) Maton (cardamom, Lesser Cardamom)	Seed	-	-	2 gm
6 Astragalus sarcocolla	-	-	-	2 gm
7 Cinnamomum camphora (Linn.) J. Presl (camphor laurel, camphor tree, camphortree, Camphor)	-	-	-	3 gm
8 Cinnabar	-	-	-	3 gm
9 Santalum album Linn. (sandalwood)	-	-	-	3 gm
10 Piper nigrum Linn. (Black Pepper)	-	-	-	21 numbers
11 Clarified butter	-	-	-	42 gm

3. Therapeutic composition mentioned above is prepared as TILA. Tila is a solution used locally for massage. It can be a solution of the powdered drugs or water extract or oil of the drugs mentioned in the formulation.

4. A composition as described above is formulated as Thin medicated oily preparation for local use .

5. Mode of administration : Liniment .

6. It is useful in the treatment of Cancer

LIST OF DOCUMENTS WITH DATE OF PUBLICATION (PRIOR ART) :

Document	Date of Publication	Prior art	Page
Mohammad Azam Khan	1872 AD		309
Iqbal Azam, Vol. IV (19th century AD), Matba Nizami, Kanpur.		prior art	Page 309

THE DANGERS OF RELYING ON “DEFENSIVE” PROTECTION FOR TK

- - TK (in database) may not be patented, but can still be freely used by third parties if no positive protection granting holders of the knowledge the right to control its uses.
- - Third parties may not be able to directly access the databases, however, the records in the database that are used in rejections will be made available to the public at large through access to file histories in the patent office
- Examiner will not always find most relevant TK in database (e.g. Avon case) so some patents will still issue covering TK
 - Such patents still could be challenged and revoked based on that same traditional knowledge, in a database or not

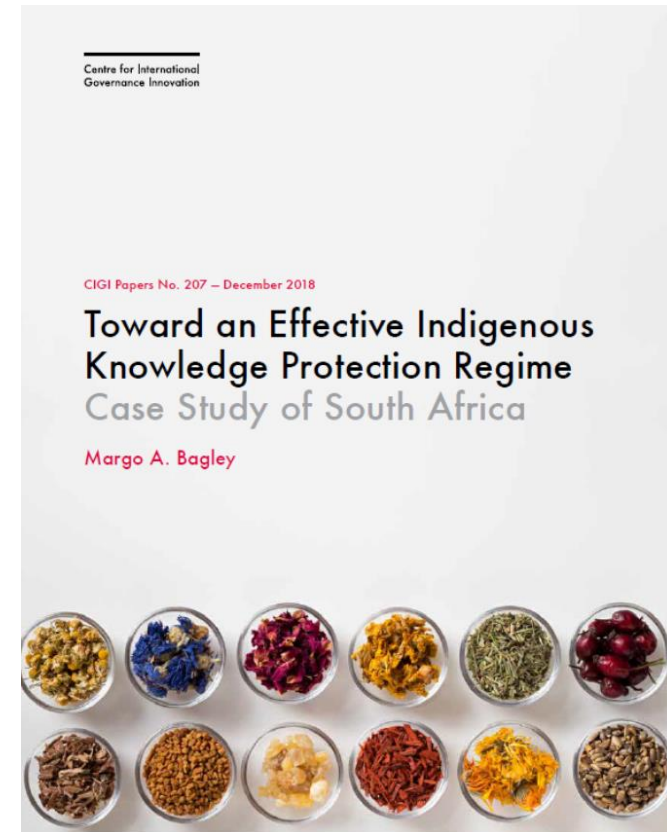
TKDL ENTRIES CITED AGAINST AVON APPLICATION; APPLICATION AMENDED, REJECTIONS OVERCOME

- 2014 EPO Avon patent application covering wrinkle-reduction products and methods of use
- *Plumbago indica, Canaga odorata, Sapindus rarak, Curcuma xanthorrhiza*
- Claims rejected based on TKDL entries
- Applicant was able to overcome rejection and obtain allowance of the patent

A BETTER APPROACH: POSITIVE PROTECTION AND DEFENSIVE PROTECTION

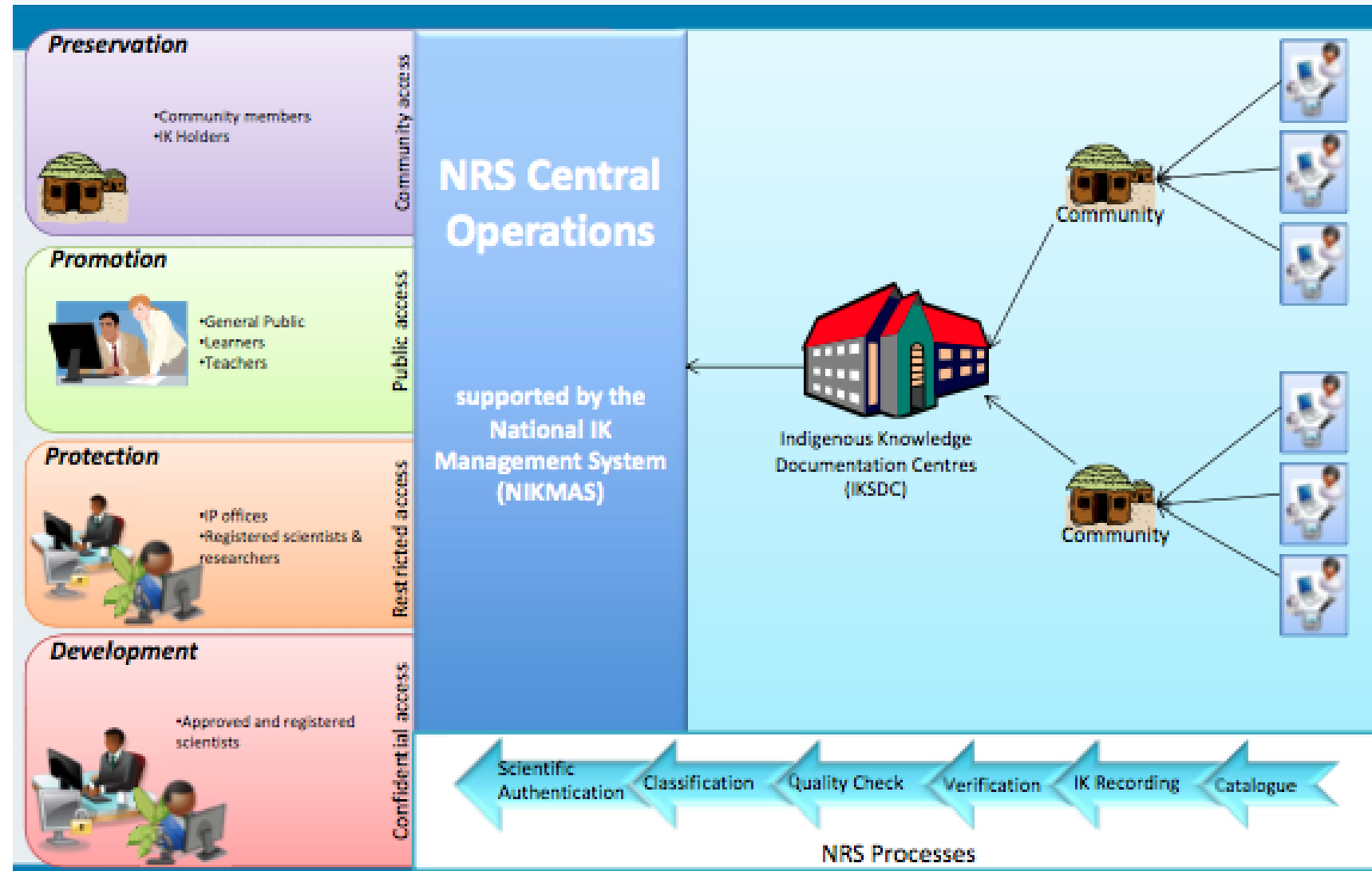
EXAMPLE, SOUTH AFRICA'S TK PROTECTION REGIME (NOT ALL OPERATIONAL YET)

- bioprospecting laws and regulations;
- a new traditional knowledge collection, documentation, and publication system (NIKMAS/NRS) and a national office focused on protecting and promoting TK (NIKSO (informally CSIR)),
- intellectual property protection for Indigenous knowledge (including the introduction of substantive patent examination and a patent application disclosure of origin requirement); and
- *sui generis* Indigenous knowledge **legal protection** through the Protection, Promotion, Development, and Management of Indigenous Knowledge bill (“the IK Protection bill”).



NRS OVERVIEW

The National Recordal System (NRS), supported by the National Indigenous Knowledge Management System (NIKMAS), a digital repository for the collected knowledge; preserves and protects the information in a catalogued, searchable format, while allowing controlled dissemination according to strict criteria.



NIKMAS SEARCH ON IK ENTRIES

Home Explore NIKMAS Contact Us About Register Login

You are here: Search Results - Isijabane

Isijabane

Tasty and nourishing pumpkin stew.

Andrew Duma

A - Indigenous Knowledge Entry

This column contains the master food or medicine entry.

Isijabane
FOOD

Start life of medicine: -
Consumption description: **Anytime**
Preparation method: **Make fire**
Put a pot with clean water on a fire and bring to boil.
Cut the pumpkin fruit into small pieces (2 cm).
Cut the pumpkin leaves and flowers also into pieces.
Add pumpkin fruit, leaves and flower pieces to the water.
Boil for 5 to 6 minutes.
Drain separately with salt until a coarse powder.
Cut tomatoes into pieces.
Add the tomato pieces and peanut to the pot.
Boil until the pumpkin is soft.
Stir the dish until all the ingredients are

B - Sources

This column represents the individual sources (plants, animals or minerals) associated to "A".

Rhango
PLANT

Also known as: -
Scientific name: -
Dan Bani number: -
Habitat: **Rich loam soil with plenty of sun**
Locations where found: -
Identification: **Low growing vine of the pumpkin family. The fruit is about the size of a sweetpotato and is white in colour. The flowers are bright yellow.**
Acquisition method: -
Acquisition location: -
Gathering methods: -
Identification methods: -

C - Ingredients

This column represents the ingredients associated to a source in "B".

Leaves
MEDICINE

Sourced from: **Rhango**
Sourced part: -
By product used: -
Type: **Part**
Description: **Leaves**
Storage methods: **Not stored**
Start life: **Not stored**

Methods: Leaves

Title: **Leaves**
Subject: **Other**
Description: -
Type: **Ingredient**
WISDC: -
Date: -
Created/modified: -
Date recorded: **2012-04-24**
Available to public: -
Description: **Download**

NEW IK PROTECTION LAW FEATURES

- The South African Protection, Promotion, Development and Management of Indigenous Knowledge law will provide “positive” not merely “defensive” protection for South African indigenous knowledge.
- establishes a TK registration office, defines the kinds of indigenous knowledge that can be protected, and provides that the duration of protection is perpetual as long as the statutory requirements are met.
- gives communities in which ownership of protected indigenous knowledge is vested the exclusive right to commercially benefit from the property, be acknowledged as its source, restrain unauthorized uses, and license uses.
- excludes certain uses of indigenous knowledge from its provisions, such as for criticism or academic review, news reporting, non-commercial research, or in case of a national emergency.
- License provisions: for functional indigenous knowledge, the licensee is only required to pay a royalty for 20 years from the date of the agreement and for indigenous cultural expressions, royalty payments end 50 years after the agreement.
- provides protection for indigenous knowledge originating outside of South Africa if reciprocal protection is available under the laws of the foreign jurisdiction.

PRIMARY ALTERNATIVES TO UTILITY PATENT PROTECTION?

- **Utility Models** (petty patents) – for simple inventions, generally not processes, shorter term (6-10 years), much less expensive to obtain
- **Industrial Designs** –protects ornamental appearance (15-25 year term) also less expensive
- **Trade Secrets** –Law may provide protection against misappropriation of information that provides an economic advantage to its owner from not being generally known or readily ascertainable by proper means (perpetual protection possible, but not if secret is made public in any way)

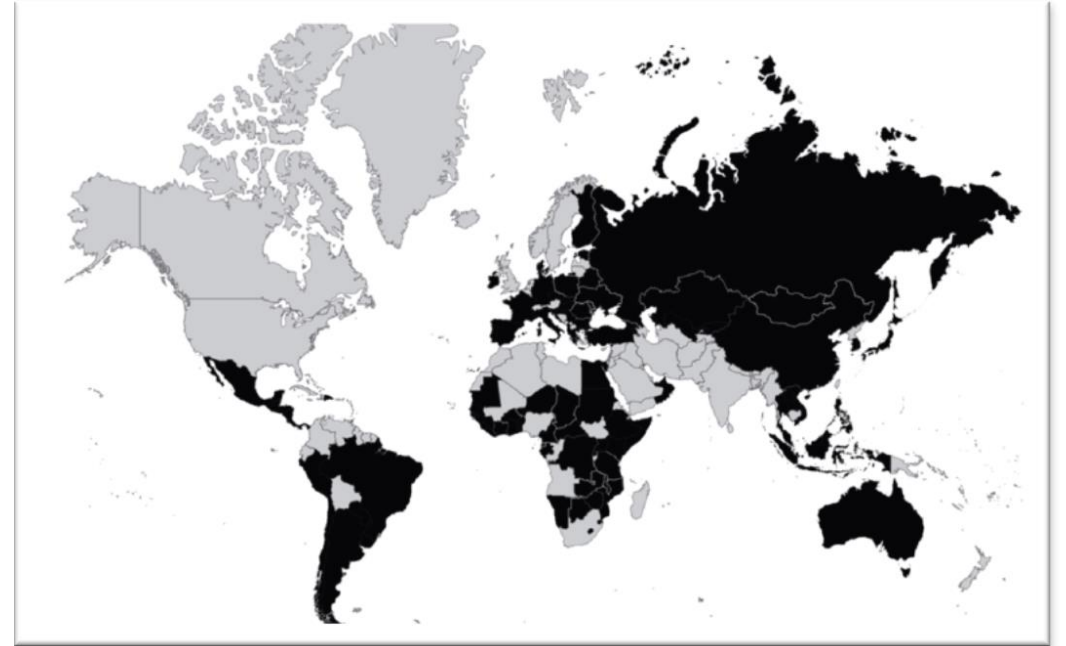


Figure 1. Countries with Utility Model Protection in 2020³⁵

D. Cahoy, "Why Harmonize?"

CONCLUSIONS

- The global patent system can benefit IPLCs by allowing them to more effectively protect and exploit their innovations
- But patents are expensive to obtain and maintain and the process entails risk (patents may not issue, may be invalidated, may be too expensive to enforce)
- Pro bono and Inventor Assistance Programs may be helpful, collaborations with academic, government or NGO institutions to validate, protect, and exploit TK may be as well
- TK can also be used to invalidate erroneously granted patents, but need not be in a database to do so. TK in databases should also be protected by positive law against misappropriation.