Taller de Entrenamiento de la OMPI sobre información y búsqueda de patentes para el personal de la Red Nacional de Centros de Apoyo a la Tecnología y la Innovación (CATI) en Ecuador

Ejercicio Práctico
Búsqueda de Tecnología

Ing.Gloria Aponte, MSc.
Especialista en Gestión de Tecnología y Propiedad Industrial

Guayaquil, 21-23 enero de 2015

Taller de Entrenamiento de la OMPI sobre información y búsqueda de patentes para el personal de la Red Nacional de Centros de Apoyo a la Tecnología y la Innovación (CATI) en Ecuador

EJERCICIO

Nanocatalizadores que contienen cerio, circonita y lantano utilizados en convertidores catalíticos en los automóviles

Taller de Entrenamiento de la OMPI sobre información y búsqueda de patentes para el personal de la Red Nacional de Centros de Apoyo a la Tecnología y la Innovación (CATI) en Ecuador

EJERCICIO

Reducir las emisiones contaminantes de los automotores a la atmósfera como los óxidos de nitrógeno, contaminantes nocivos con los que se forma el smog fotoquímico.

EJERCICIO

- ***Identificar el área de estudio:***

Tecnologías relacionadas con nanocatalizadores utilizados en convertidores catalíticos para reducir las emisiones en los automóviles.

➢ *Bloques de Conocimiento*

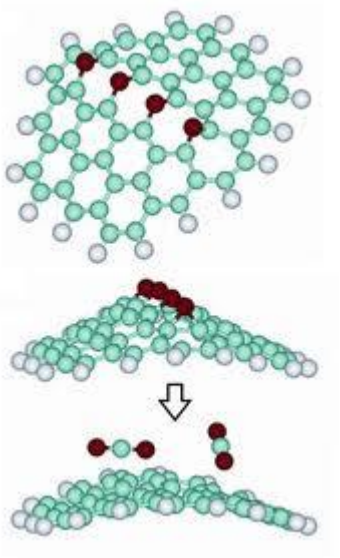
Nanocatalizadores

Convertidores catalíticos Para automóviles

Reducción de emisiones: NO2, CO2,

➢*Definir el alcance técnico*

Qué es un nanocatalizador?

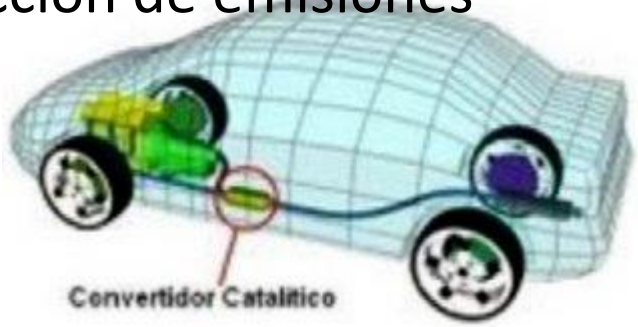


<u>Concepto Nano</u>:

➢Moléculas que pueden acelerar el ritmo de las reacciones químicas con tamaño de 10^{-9}

➢Aplicación: convertidores catalíticos para automóviles

Objetivo: reducción de emisiones



➢*Selección de las palabras clave:*

Estructura del Catalizador	Convertidores Catalíticos	Reducción de Emisiones
Nanocatalyst Cerium, Zirconio Lanthanide	Catalytic converter Automotive	Emissions control, Carbon dioxide Nitrogen dioxide

➢*Identificar sinónimos, homónimos*

Estructura del Catalizador	Convertidores Catalíticos	Reducción de Emisiones
Nanocatalyst nanomaterial, Nanoscale, nanoparticle, nanometric, nanoporous, Catalyst Cerium Zirconio Lanthanide	Catalytic converter Automotive, automobile, Vehicle Combustion engine Combustion motor Diesel engine	emissions control, Carbon dioxide Nitrogen dioxide

➢ *Base de datos: Espacenet*

- Se seleccionan los operadores que utiliza esta base de datos.
- Se utilizan las herramientas que presenta Espacenet

➢ *Definir los conjuntos*

De cada bloque de conocimiento obtengo u conjunto

➢ *Definir los conjuntos*

Estructura del Catalizador	Convertidores Catalíticos	Reducción de Emisiones
I	II	III
Nanocatalyst OR Nanomaterial OR Nanoscale OR nanoparticle OR Nanometric OR nanoporous AND Catalyst AND (cerium OR zirconia OR lanthanide)	Catalytic converter AND Automotive OR automobile OR Vehicle OR Combustion engine OR Combustion motor OR Diesel engine	Emissions control, Or Carbon dioxide OR Nitrogen dioxide

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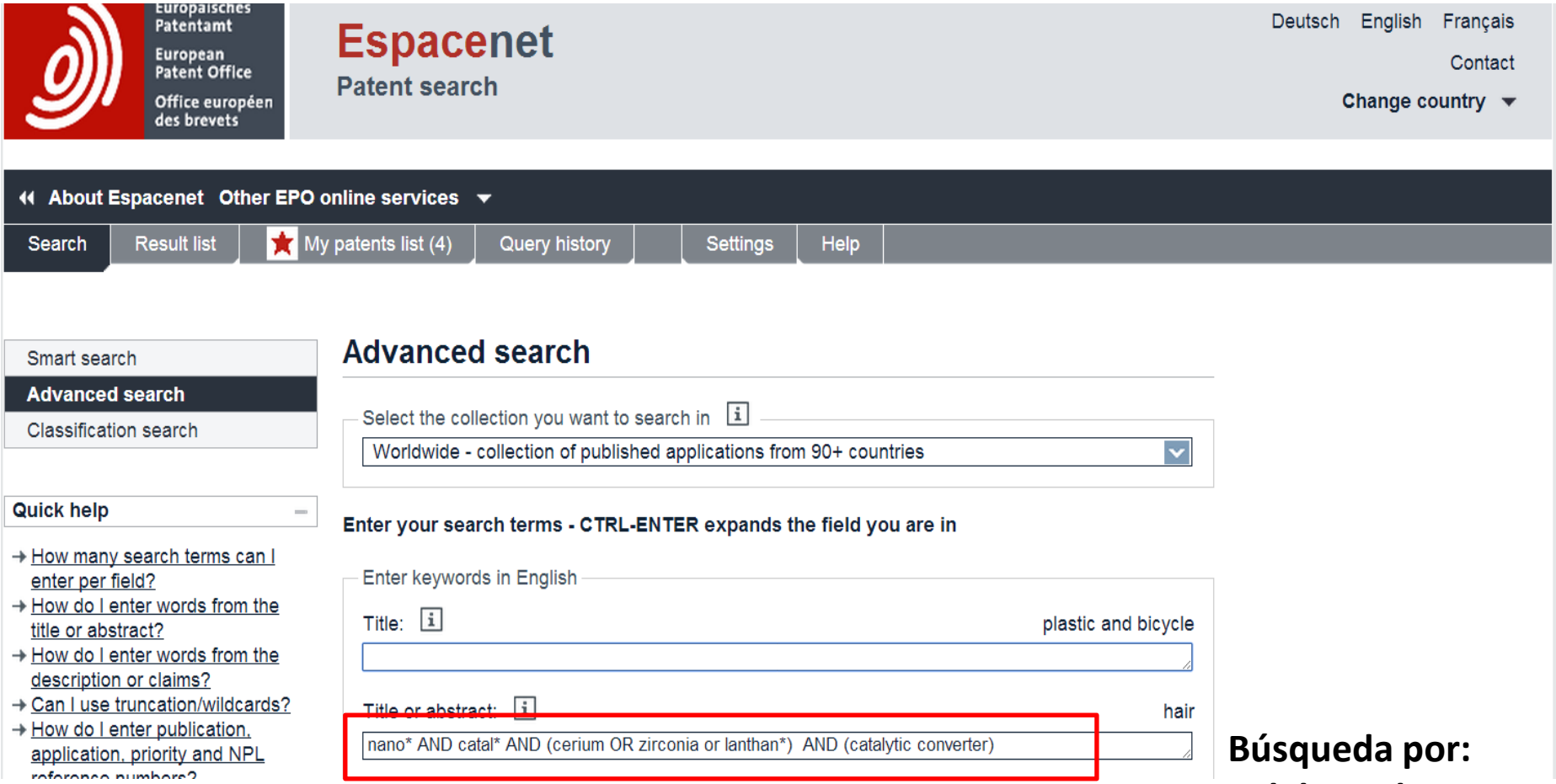

Búsqueda por: Palabras clave

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2. METHOD FOR PREPARING HIGH-YIELD BIOFUEL FROM GUAIACOL

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
SUH DONG JIN [KR] HA JEONG MYEONG [KR] (+6)	KOREA INST SCI & TECH [KR]	Y02E50/13	B01J23/40 C07C4/06 C10G3/00 (+1)	KR20130017250 (A) 2013-02-20	2011-08-10

3. Nanometer vanadium catalyst for preparing sulfuric acid through oxidizing SO2 and preparation method thereof

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
YIPENG QIN QIANWEN LU (+3)	NANJING YUNGAO NEW MATERIALS CO LTD		B01J27/053 C01B17/79	CN102489320 (A) 2012-06-13 CN102489320 (B) 2013-12-18	2011-11-15

4. Automotive catalyst comprises sintered metal filter substrate covered by intermediate layer of aluminum oxide and silicone dioxide nano-particles

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
	HJS FAHRZEUGTECHNIK GMBH & CO [DE]	B01D53/9454 B01J21/12 B01J23/10 (+9)	B01D53/94 B01J21/12 B01J23/40 (+8)	DE202004007433 (U1) 2004-08-12	2004-05-06

5. Automotive catalyst comprises sintered metal filter substrate covered by intermediate layer of aluminum oxide and silicone dioxide nano-particles

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
GROS FRANK [DE] STEIGERT SIMON [DE] (+1)	NANO X GMBH [DE] HJS FAHRZEUGTECHNIK GMBH & CO [DE]	B01D2239/0258 B01D2239/0478 B01D2239/065 (+21)	B01J21/04 B01J37/025	DE102005021658 (A1) 2006-01-12	2004-05-06

Seleccionadas

2. METHOD FOR PREPARING HIGH-YIELD BIOFUEL FROM GUAIACOL

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority
SUH DONG JIN [KR] HA JEONG MYEONG [KR] (+6)	KOREA INST SCI & TECH [KR]	Y02E50/13	B01J23/40 C07C4/06 C10G3/00 (+1)	KR20130017250 (A) 2013-02-20	2011-08-

4. Automotive catalyst comprises sintered metal filter substrate covered by intermediate layer of aluminum oxide and silicone dioxide nano-particles

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
	HJS FAHRZEUGTECHNIK GMBH & CO [DE]	B01D53/9454 B01J21/12 B01J23/10 (+9)	B01D53/94 B01J21/12 B01J23/40 (+8)	DE202004007433 (U1) 2004-08-12	2004-05-06

5. Automotive catalyst comprises sintered metal filter substrate covered by intermediate layer of aluminum oxide and silicone dioxide nano-particles

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
GROS FRANK [DE] STEIGERT SIMON [DE] (+1)	NANO X GMBH [DE] HJS FAHRZEUGTECHNIK GMBH & CO [DE]	B01D2239/0258 B01D2239/0478 B01D2239/065 (+21)	B01J21/04 B01J37/025	DE102005021658 (A1) 2006-01-12	2004-05-06

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Enter keywords in English

Title: plastic and bicycle

Title or abstract: hair

(cerium OR zirconia or lanthan*) AND (catalytic converter)

Enter one or more classification symbols

CPC

B82Y30/low OR Y10S977/low

IPC H03M1/12

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1. FUEL ADDITIVE CONTAINING CERIUM DIOXIDE NANOPARTICLES WITH ALTERED STRUCTURE

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
DIFRANCHESKO AL'BERT GEHRI, OLLSTON TOMAS D, (+3)	SERION TEKNOLODZHI, INK	B01J23/002 B01J23/10 B01J23/22 (+53)	B01D53/94 B01J23/00 B01J23/10 (+5)	RU2011129305 (A) 2013-01-27 RU2487753 (C2) 2013-07-20	2008-12-17

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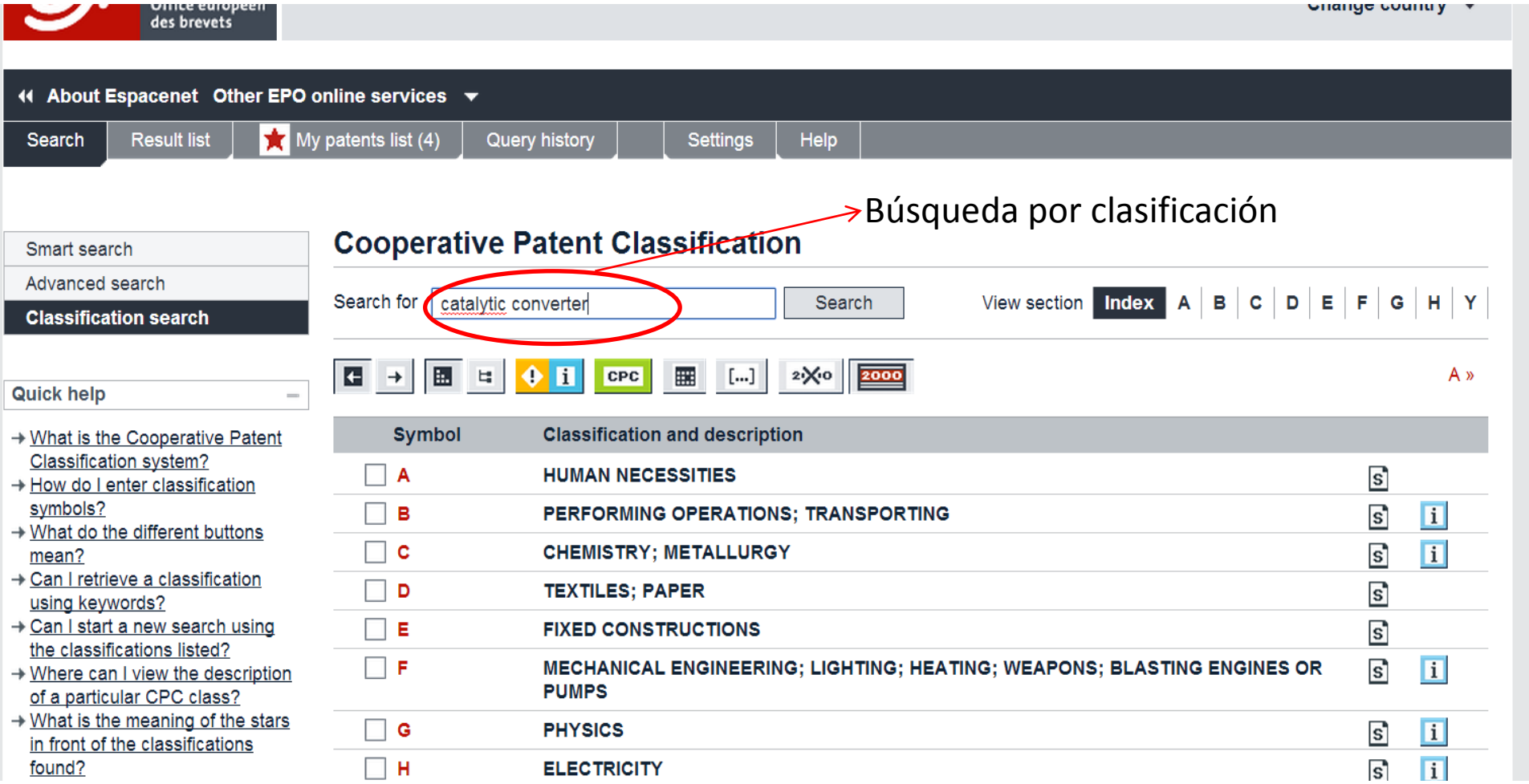
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CHEMISTRY; METALLURGY
D
TEXTILES; PAPER
E
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F
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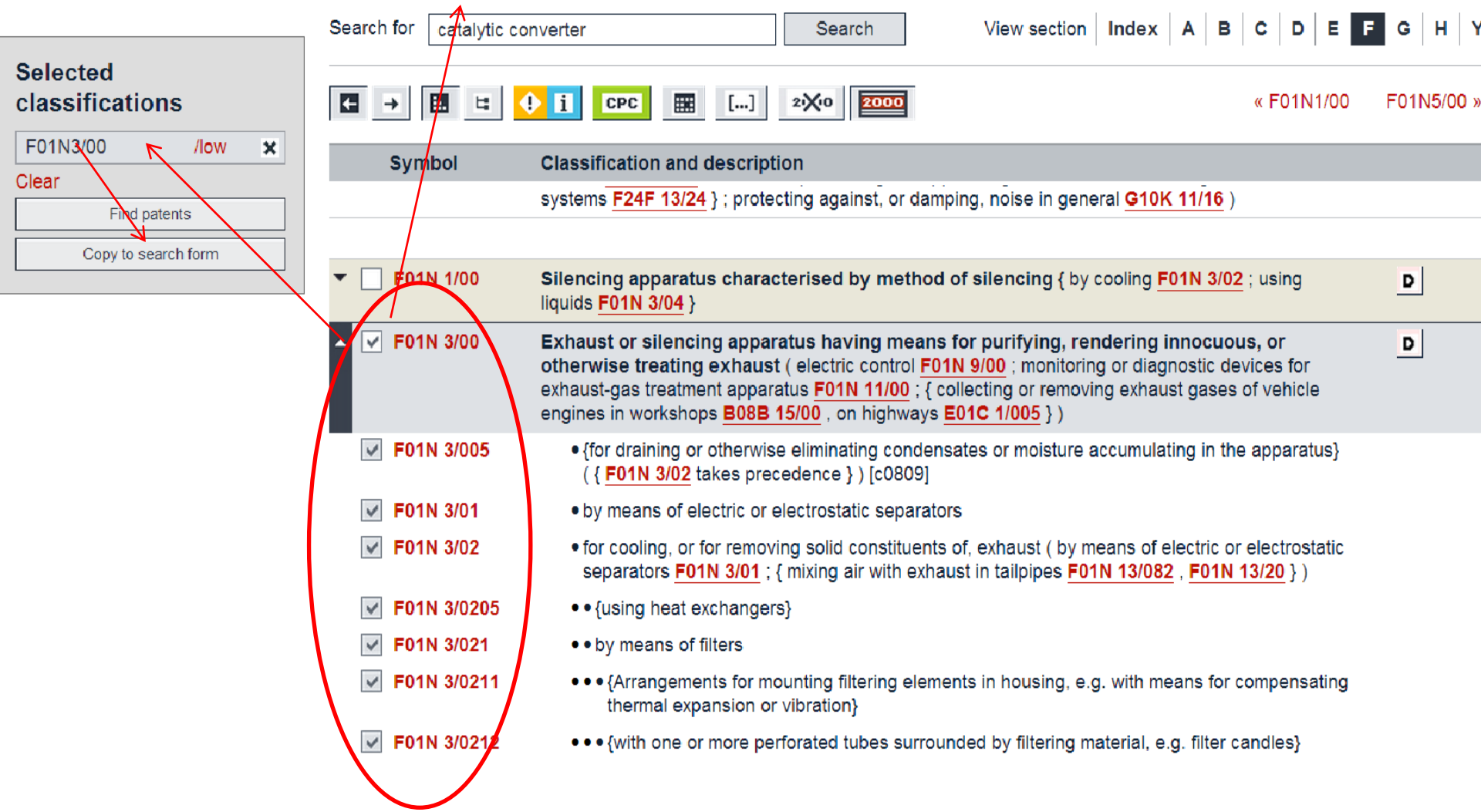
Symbol	Classification and description
★★ F01N 3/00	**Exhaust or silencing apparatus having means for purifying, rendering innocuous, or otherwise treating exhaust** (electric control F01N 9/00 ; monitoring or diagnostic devices for exhaust-gas treatment apparatus F01N 11/00 ; { collecting or removing exhaust gases of vehicle engines in workshops B08B 15/00 , on highways E01C 1/005 })
★★ Y02T 10/00	**Road transport of goods or passengers**
★ B01D 53/00	**Separation of gases or vapours; Recovering vapours of volatile solvents from gases; Chemical or biological purification of waste gases, e.g. engine exhaust gases, smoke, fumes, flue gases, aerosols,** (recovery of volatile solvents by condensation B01D 5/00 ; sublimation B01D 7/00 ; cold traps, cold baffles B01D 8/00 ; working-up undefined gaseous mixtures obtained by cracking hydrocarbon oils C10G 70/00 ; cleaning coal gas C10K ; working-up of natural gas, or synthetic natural gas, C10L 3/10 ; separation of difficult-to-condense gases or air by liquefaction F25J ; for investigating materials G01N 30/00)
★ F01N 13/00	**Exhaust or silencing apparatus characterised by constructional features;** { Exhaust or silencing apparatus, or parts thereof, having pertinent characteristics not provided for in, or of interest apart from, groups F01N 1/00 to F01N 5/00 , F01N 9/00 , F01N 11/00 }
★ F01N 2240/00	**Combination or association of two or more different exhaust treating devices, or of at least one such device with an auxiliary device, not covered by indexing codes F01N 2230/00 or F01N 2250/00 , one of the devices being**
F01N 2610/00	**Adding substances to exhaust gases**
F01N 2900/00	**Details of electrical control or of the monitoring of the exhaust gas treating apparatus**
B01J 35/00	**Catalysts, in general, characterised by their form or physical properties**
B01D 2255/00	**Catalysts**
F02D 41/00	**Electrical control of supply of combustible mixture or its constituents** (F02D 43/00 takes precedence)

Selecciono la clasificación de interés



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Enter keywords in English

Title: plastic and bicycle

Title or abstract: hair

nano* AND catal* AND (cerium or zirconia OR lanthan*)

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Combinación: Palabras clave y clasificación

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1. LOW COST LEAN NOx REDUCTION CATALYST SYSTEM

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
QI GONGSHIN [US] LI WEI [US]	QI GONGSHIN [US] LI WEI [US] (+1)	B01D2255/2042 B01D2255/2063 B01D2255/2065 (+47)	F01N3/10 F01N3/18	US2013111876 (A1) 2013-05-09	2011-11-03

2. BASE METAL EXHAUST GAS PURIFYING CATALYST, METHOD FOR PRODUCING CARRIER, METHOD FOR PRODUCING CATALYST, AND EXHAUST EMISSION CONTROL DEVICE

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
	TOYOTA MOTOR CORP TOYOTA CENTRAL RES & DEV	B01D2255/2065 B01D2255/20715 B01D2255/20761 (+10)	B01D53/94 B01J23/50 B01J23/745 (+3)	JP2012217875 (A) 2012-11-12 JP5320426 (B2) 2013-10-23	2011-04-04

3. Process for the catalytic control of radical reaction

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
BOSTEELS DOMINIQUE [IE]		B01D53/9413 B01J21/18 B01J21/185 (+4)	B01J23/00 B01J23/38 B01J29/00 (+1)	US2007220873 (A1) 2007-09-27 US7723257 (B2) 2010-05-25	2001-10-10

4. Automotive catalyst comprises sintered metal filter substrate covered by intermediate layer of aluminum oxide and silicone dioxide nano-particles

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
	HJS FAHRZEUGTECHNIK GMBH & CO [DE]	B01D53/9454 B01J21/12 B01J23/10 (+9)	B01D53/94 B01J21/12 B01J23/40 (+8)	DE202004007433 (U1) 2004-08-12	2004-05-06

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2. BASE METAL EXHAUST GAS PURIFYING CATALYST, METHOD FOR PRODUCING CARRIER, METHOD FOR PRODUCING CATALYST, AND EXHAUST EMISSION CONTROL DEVICE

	Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
★		TOYOTA MOTOR CORP TOYOTA CENTRAL RES & DEV	B01D2255/2065 B01D2255/20715 B01D2255/20761 (+10)	B01D53/94 B01J23/50 B01J23/745 (+3)	JP2012217875 (A) 2012-11-12 JP5320426 (B2) 2013-10-23	2011-04-04

3. Process for the catalytic control of radical reaction

	Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
★	BOSTEELS DOMINIQUE [IE]		B01D53/9413 B01J21/18 B01J21/185 (+4)	B01J23/00 B01J23/38 B01J29/00 (+1)	US2007220873 (A1) 2007-09-27 US7723257 (B2) 2010-05-25	2001-10-10

4. Automotive catalyst comprises sintered metal filter substrate covered by intermediate layer of aluminum oxide and silicone dioxide nano-particles

	Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
★		HJS FAHRZEUGTECHNIK GMBH & CO [DE]	B01D53/9454 B01J21/12 B01J23/10	B01D53/94 B01J21/12 B01J23/40	DE202004007433 (U1) 2004-08-12	2004-05-06

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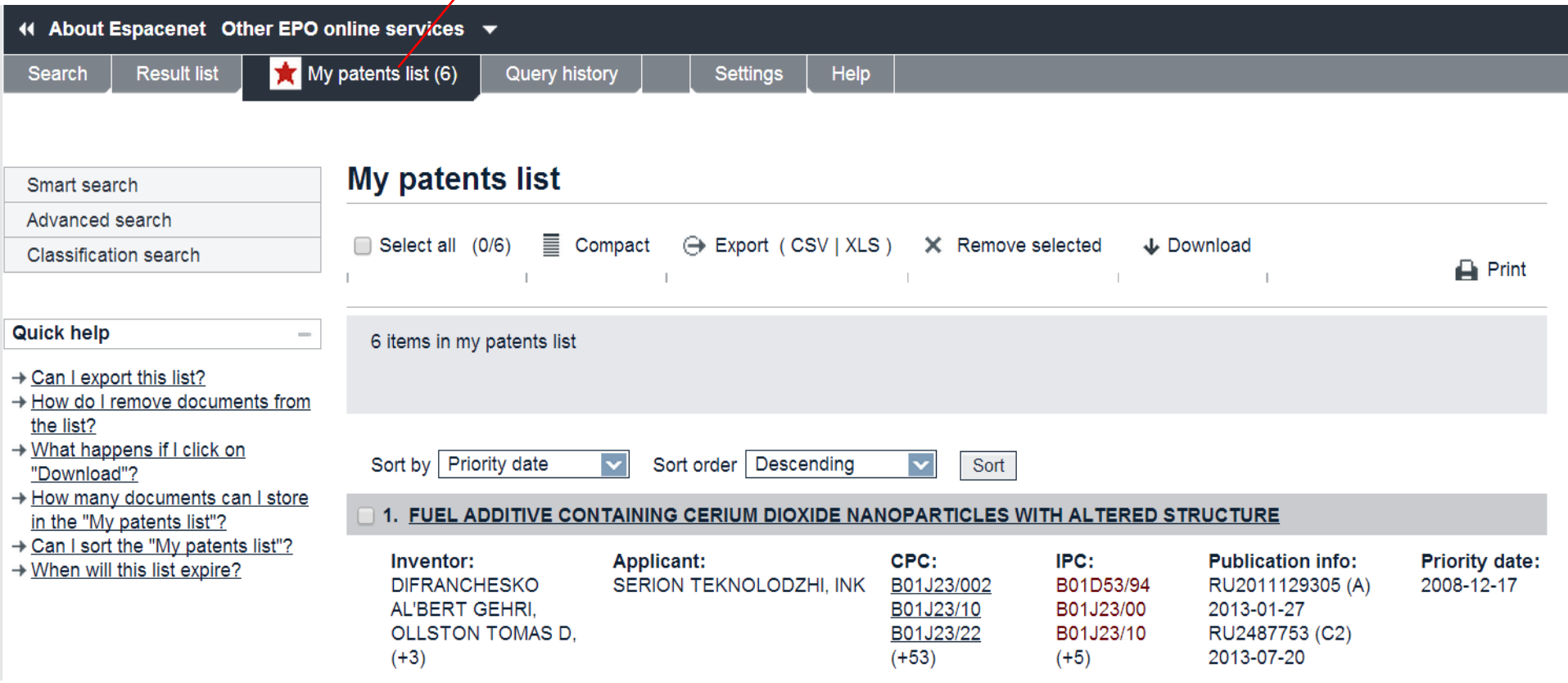

2. **METHOD FOR PREPARING HIGH-YIELD BIOFUEL FROM GUAIACOL**

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
SUH DONG JIN [KR] HA JEONG MYEONG [KR] (+6)	KOREA INST SCI & TECH [KR]	Y02E50/13	B01J23/40 C07C4/06 C10G3/00 (+1)	KR20130017250 (A) 2013-02-20	2011-08-10

3. **Automotive catalyst comprises sintered metal filter substrate covered by intermediate layer of aluminum oxide and silicone dioxide nano-particles**

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
	HJS FAHRZEUGTECHNIK GMBH & CO [DE]	B01D53/9454 B01J21/12 B01J23/10 (+9)	B01D53/94 B01J21/12 B01J23/40 (+8)	DE202004007433 (U1) 2004-08-12	2004-05-06

4. **Automotive catalyst comprises sintered metal filter substrate covered by intermediate layer of aluminum oxide and silicone dioxide nano-particles**

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
GROS FRANK [DE] STEIGERT SIMON [DE] (+1)	NANO X GMBH [DE] HJS FAHRZEUGTECHNIK GMBH & CO [DE]	B01D2239/0258 B01D2239/0478 B01D2239/065 (+21)	B01J21/04 B01J37/025	DE102005021658 (A1) 2006-01-12	2004-05-06

5. **LOW COST LEAN NOx REDUCTION CATALYST SYSTEM**

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
QI GONGSHIN [US] LI WEI [US]	QI GONGSHIN [US] LI WEI [US] (+1)	B01D2255/2042 B01D2255/2063 B01D2255/2065 (+47)	F01N3/10 F01N3/18	US2013111876 (A1) 2013-05-09	2011-11-03

6. **BASE METAL EXHAUST GAS PURIFYING CATALYST, METHOD FOR PRODUCING CARRIER, METHOD FOR PRODUCING CATALYST, AND EXHAUST EMISSION CONTROL DEVICE**

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
	TOYOTA MOTOR CORP TOYOTA CENTRAL RES & DEV	B01D2255/2065 B01D2255/20715 B01D2255/20761 (+10)	B01D53/94 B01J23/50 B01J23/745 (+3)	JP2012217875 (A) 2012-11-12 JP5320426 (B2) 2013-10-23	2011-04-04

Resultados

Con las estrategias de búsquedas utilizadas se obtuvieron 6 documentos relevantes relacionados con el área de estudio; paso siguiente analizar la información de cada documento a detalle y Tomar las acciones siguientes

Muchas gracias.

Ing. Gloria Aponte. MSc.
Gloriam.aponte@gmail.com

Taller de Entrenamiento de la OMPI sobre información y búsqueda de patentes para el personal de la Red Nacional de Centros de Apoyo a la Tecnología y la Innovación (CATI) en Ecuador

Ejercicio Práctico
Búsqueda de Tecnología

Ing.Gloria Aponte, MSc.
Especialista en Gestión de Tecnología y Propiedad Industrial

Guayaquil, 21-23 enero de 2015