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# New Asian patent data and viewing in PatBase

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# Agenda

- Introduction to PatBase
- Asian Data enhancements: Japan, China, Korea, Taiwan
- Example with Merck and Japanese data
- Using F/Fl-Terms in PatBase
- Machine Translations

# Product Overview

- PatBase
  - Searchable Full-text Database developed with RWS Information
- PatentOrder
  - Patent Document Delivery Service
- Patent Tracker
  - Patent Status Tracking service
- OPS - Patent Family Portal
  - Easy to use family and legal status search interface
- Archive and Alert Workflow Solutions
  - Bespoke Information Management solutions

# PatBase Overview

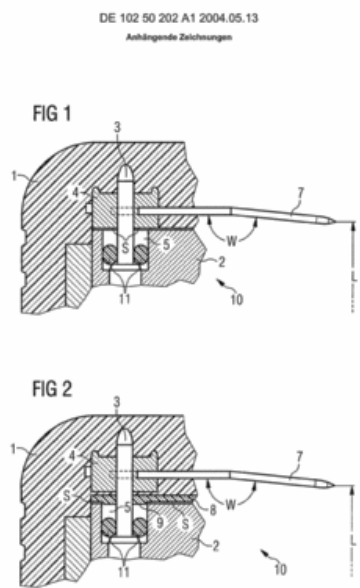
- Over 35 million patent family records
- Over 25 million full-text patent records
  - US, EP, PCT, DE, FR, GB
- Over 70 patent issuing authorities
- Over 20 million patent drawings
- Machine Translations
- Updated daily
- Subject searchable by keyword, IPC, UPC and ECLA, Japanese F/FI Terms, German DEKLA Classifications

**Title:** Actuator with a duct opening sealed during extrusion coating against the ingress of plastic

**Abstract:**  
 Source: US2004108481AA An actuator with a top plate comprises at least one duct opening for a respective electric contact pin. A contact stud carrier with a contact stud is placed over the contact pin. To prevent the possible ingress of plastic into the duct opening between a gap(s) between the contact stud carrier and the top plate during extrusion coating of the actuator or its top plate, according to the invention it is proposed that a sealing washer be located onto the open side of the duct opening of the top plate to provide a hermetic seal. As a result, the contact stud carrier can advantageously always be arranged independently of the thickness of the sealing washer such that a specified **recisely maintained**. This simplifies the production **reduces its production costs**.

**Classifications**

**International class (IPC 8):** F02M51/00 H01L41/053 (Advanced/Invention);  
 F02M63/00 (Advanced/Non-invention);  
 F02M51/00 H01L41/00 (Core/Invention);  
 F02M63/00 (Core/Non-invention)  
**International class (IPC 1-7):** B05B1/30 B29C45/14 B29K105/22 B29K105/34 F02M47/02  
 F02M51/00 F02M51/06 F02M59/00 F02M61/16 F02M61/18 F16K31/02 H01L41/04 H01L41/053  
 H02N2/04 H05K5/06  
**European class:** F02M51/00C H01L41/053  
**US class:** 239/533.1 239/533.12 239/533.2 239/584 239/585.3 239/88 251/129.06  
**JP class F-Term:** 3G066/AA01 3G066/AA07 3G066/AD07 3G066/BA31 3G066/BA36  
 3G066/CC01 3G066/CD10 3G066/CD17 3G066/CE27 3G066/CE30 4F206/AD03 4F206/AD05  
 4F206/AH16 4F206/JA07 4F206/JB12 4F206/JQ81 4F206  
**JP class F-Index:** F02M61/18/360/B B29C45/14



**Family:**

Publication number	Publication date	Application number	Application date	Links
DE10250202 A1	20040513	DE20021050202	20021028	
EP1420467 A2	20040519	EP20030103716	20031007	
JP2004150429 A2	20040527	JP20030364863	20031024	
US2004108481 AA	20040610	US20030692392	20031023	
US6974088 BB	20051213	US20030692392	20031023	

Family

**Priority:** DE20021000202 20021028 DE20021050202 20021028  
**Cited documents:** US6717103, US6126094, US5881807, DE19940347, DE19818068,  
**Assignee(s):** (std): ALBERT ROLAND ; HEIGL JOHANN ; MOHR MARKUS ; NIESSLBECK KLAUS ; SIEMENS AG  
**Inventor(s):** (std): ALBERT ROLAND ; HEIGL JOHANN ; MOHR MARKUS ; NIESSLBECK KLAUS  
**Designated states:** AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

All Assignee & Inventors

View  
Biblio.Hit  
AnalysisDE10150257  
Claims (0)  
Description(0)FR2819167A  
Claims (0)  
Description(0)GB2370980A  
Title/ Abstract (6)US2002088078  
Title/ Abstract (6)  
Claims (32) smart  
Description(84)US6640385  
Title/ Abstract (6)  
Claims (32) smart  
Description(84)

means 16. Finally, the user mounts the cyclone dust collecting apparatus 10 back in the dust collecting chamber 1a of the cleaner body 1 and closes the cleaner body cover 8.

[0011] The conventional cyclone dust collecting apparatus 10, however, is relatively large, heavy, and inconvenient to use, since the user has to remove it from the dust collecting chamber 1a and transport it to a dustbin in order to empty the contaminant receptacle 13. Further, since the contaminants are free fall from the contaminant receptacle 13 when the base plate opening/closing means 16 is unlatched, the possibility is high that the contaminants could fall onto undesirable places, such as the floor, etc., instead of falling into the dustbin. In addition, since the user has no way to observe the contaminants in the contaminant receptacle 13, the user cannot control easily control disposal of the contaminants.

#### SUMMARY OF THE INVENTION

[0012] The present invention has been made to overcome the above-described problems of the related art. Accordingly, it is an object of the present invention to provide a cyclone dust collecting apparatus for a vacuum cleaner having a contaminant receptacle that is separately removable from the cyclone dust collecting apparatus by a user. This separately removable contaminant receptacle is more convenient for a user to handle, because it is both smaller and lighter than the overall dust collecting apparatus.

[0013] Another object of the present invention is to provide a cyclone dust collecting apparatus for a vacuum cleaner that enables the user to control contaminant receptacle disposal process, so as to prevent the contaminants from falling onto the floor or other undesirable places.

[0014] In order to accomplish the above objects, a cyclone dust collecting apparatus for a vacuum cleaner is interconnected with a fan motor portion of a cleaner body. The cyclone dust collecting apparatus, which separates contaminants from the air that is drawn in through a suction brush, includes a cyclone body fixed in the cleaner body and a contaminant receptacle. The cyclone body separates contaminants from the air drawn in through the suction brush. The cyclone body has a contaminant outlet, through which the contaminants are discharged. The contaminant receptacle is removably coupled to a lower side of the cyclone body. The contaminant receptacle has a contaminant inlet that corresponds to the contaminant outlet of the cyclone body, through which contaminants can pass into the contaminant receptacle.

[0015] The cyclone body includes a housing having a substantially cylindrical shape, a closed upper end, and a closed lower end. The contaminant outlet is formed in the cylindrical wall of the housing adjacent to the lower end. An air intake pipe is connected to the suction brush. The air intake pipe directs the air from the suction brush into the housing in a diagonal direction. A grille, which has a plurality of fine holes formed therein, extends from an upper end of the housing to the lower end. An air discharge pipe, one end of which is connected to the grille and the other end of which is connected to the fan motor portion, enables clean air to be discharged from the cyclone dust collecting apparatus.

[0016] The contaminant receptacle has a contaminant disposal opening formed in a top surface thereof and includes a contaminant receptacle cover that removably covers the contaminant disposal opening. The contaminant receptacle cover contacts the lower end of the cyclone body, the contaminant receptacle is coupled to the cyclone body. The contaminant receptacle further includes a handle attached to an outer surface thereof.

#### BRIEF DESCRIPTION OF THE DRAWINGS

[0017] The above objects and other features and advantages of the present invention will be clarified by the following detailed description when taken with the attached drawings, in which:

[0018] Fig. 1 is a perspective view of a vacuum cleaner having a conventional cyclone dust collecting apparatus;

[0019] Fig. 2 is a sectional view of a vacuum cleaner having a cyclone dust collecting apparatus according to the present invention;

[0020] Fig. 3 is an exploded perspective view of the cyclone dust collecting apparatus shown in Fig. 2; and

[0021] Fig. 4 is a cross-sectional view of the cyclone dust collecting apparatus of Fig. 3.

#### Hit map: Description - US2002088078A

INTAKE SUCTION  
DIRT PARTICLE DUST  
CONTAMINATE  
SEPARATE REMOVE  
BRUSH BRISTLES  
HEAD



# Japanese Data Enhancements

- A2 and T2 documents from 2004
- Full-text
- Clipped and Embedded Images
- Machine translations of Title & Abstracts made searchable within 2-3 weeks of publication
- 2 million JP utility models added late 2007

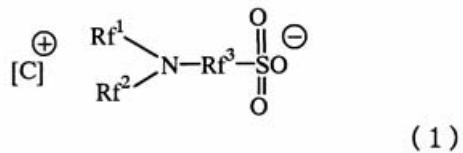
Title :  
新規なオニウム塩

Abstract :

【課題】有機合成の属する分野などで要求されている反応溶媒及び電気化学の分野で要求されている電解液などとして応用可能な新規なオニウム塩を含むイミド塩を提供する。

【解決手段】一般式(1)

【化1】

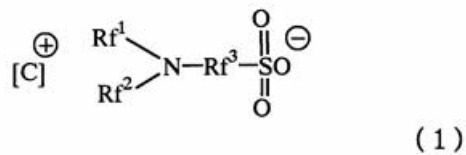


(式中のC<sup>+</sup>はオニウムカチオンであり、Rf<sup>1</sup>とRf<sup>2</sup>はそれぞれ同一又は互いに異なる炭素数1～5のペルフルオロアルキル基であって、~~両~~者は直接に、あるいは酸素原子又は窒素原子を介して結合し、両者が結合している窒素原子とともに複素環を形成してもよい。Rf<sup>3</sup>は炭素数が1～4の分岐状もしくは直鎖状ペルフルオロアルキレン基を示す)で表される含窒素ペルフルオロアルカンスルホン酸塩。

【選択図】 なし

Claim(s) :

1. 一般式(1)



(式中の[C<sup>+</sup>]はオニウムカチオンであり、Rf<sup>1</sup>とRf<sup>2</sup>はそれぞれ同一又は互いに異なる炭素数1～5のペルフルオロアルキル基であって、両者は直接に、あるいは酸素原子又は窒素原子を介して結合し、両者が結合している窒素原子とともに複素環を形成してもよい。Rf<sup>3</sup>は炭素数が1～4の分岐状もしくは直鎖状ペルフルオロアルキレン基を示す)で表される含窒素ペルフルオロアルカンスルホン酸塩。

2. 一般式(2)

# Chinese Data Enhancements

- A and U documents from 1985
- Title, Abstract and 1<sup>st</sup> Claim
- Machine translation of Title & Abstracts made searchable

# Taiwanese Data Enhancements

- A & B Documents from 2000
- English Title & Abstract

# South Korean Data Enhancements

- A Documents Added from 200503
- Title Abstract and 1<sup>st</sup> Claim
- Machine Translation of Title & Abstracts made searchable
- Full-text from 200701
- Utility Models from 200701
- 2 weeks after publication date

# Asian Focus: example with Merck

- Merck is the market leader in supplying liquid crystal composites for the LCD industry
- LCD was developed in Japan
- The majority of customers and competition are based in Japan

→ Problem:

- many patents are only published in Japan, so no full text searches will pick them up
- IPC classification is not always useful for Asian data

# Practical Example

- F-Terms not known
  - Search for “Organic light emitting diode”
  - Run a Statistical Analysis
  - Identify relevant F-term: F-Term  
3K107/AA01
  - Search on class 3K107/AA01
- Problem: Many records have no English text

# Summary Definition of F/FI-Terms

## **FI (File Index) Classification**

Extension of the IPC e.g. B G06F13/00/355

FI = approx.170,000 classes; IPC= approx. 70,000 classes

## **F-Terms (File Forming Terms)**

IPC & FI can be used in parallel

Divided into Theme, View Point and Code

*F-term example: 3E067 AB 01*

3E067 = Technology

AB = View Point (Material, Purpose etc)

01 = Code (subdivisions of View Points)

# Finding the relevant F/FI terms

#	Search query	Results	Options
1	TAC=(Organic light emitting diode)	2642	<a href="#">View</a>   <a href="#">Browse</a>   <a href="#">more...</a>

## search 1: more options

- ▶ [Statistical analysis](#)
- ▶ [Export search results](#)
- ▶ [Save search](#)
- ▶ [Add to results folder](#)
- ▶ [Order documents](#)
- ▶ [Set as a search filter](#)
- ▶ [Create alert](#)

## Classification analysis

Classification type: **Japanese F-Terms** ▼

Number of records to analyse: **First 500** ▼

Classes to analyse: **Top 50** ▼

Class length: **Theme Code (2F065)** ▼

Generate an Excel CSV file: **View Point (2F065/AA)** ▼

**Term Code (2F065/AA01)**

# Checking the Definitions

## TOP 50 Japanese F-Terms

### Japanese F-Terms Frequency

3K007 151

3K107 151

Viewpoint

Technology

3K107

ELECTROLUMINESCENT LIGHT SOURCES

H05B33/00-33/28

'Viewpoint'

(Material, Use etc)

	AA00	AA01	AA02	AA03	AA04	AA05	AA06	
AA	CLASSIFICATION OF ELECTROLUMINESCENT DEVICE	Organic	Light emitting transistors	Light transducers		Inorganic	Direct current types	Thin types
BB	APPLICATION OR USE	Displays	Illuminations or light sources	Backlights for liquid crystals, or the like	Printer heads	Lasers	Designs or advertisements	Clock
CC	PURPOSE OR EFFECT	Luminescence properties	Brightness	Efficiency	Luminous efficiency	Light extraction efficiency	Colours	Co colour temper emissi wavele includi

# Any patents in 2008?

3	2 and up=0801:0813	425
2	JCT=(3K107/AA01)	7332
1	TAC=(Organic light emitting diode)	2642

– Yes, but what does the patent say?

# An example Japanese record

3) Family number: 41644509 ( JP2008037755A2)

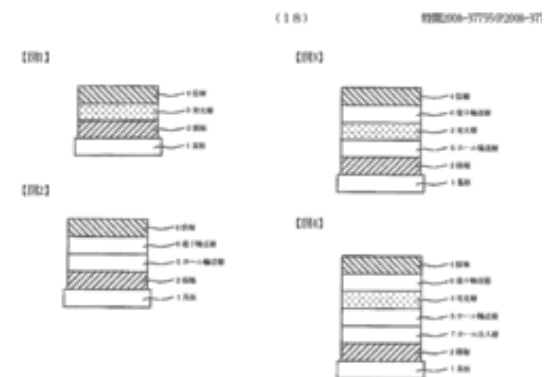
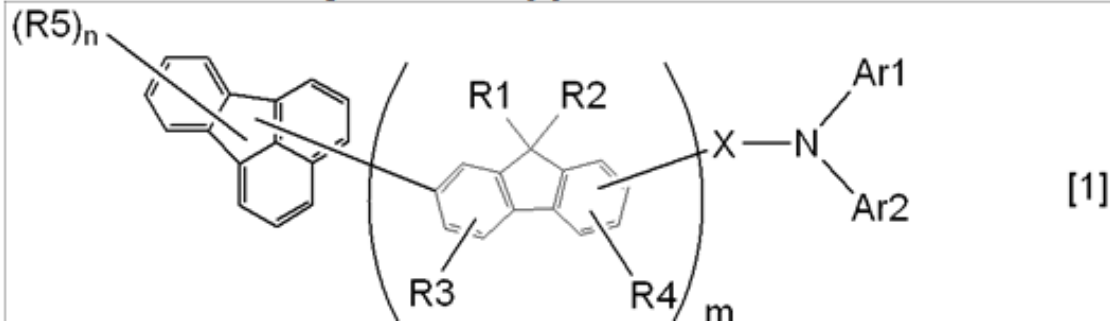
full-text status ci

**Title:** Amine compound and organic luminous element (Machine translation)

**Abstract:**

Source: JP2008037755A2

**Machine translation:** High brightness, the chemical compound for the organic luminous element which possesses the optical output of high life is offered at high efficiency. SolutionsThe amine compound which with the below-mentioned general formula [1] is shown.



# Machine Translation

- Aim: for each patent family to have a Title and Abstract in English
- One-click English machine translations

# Non Latin Text

Full text view    Words to highlight:     submit    Advanced Highlighting

View Biblio.  
Hit Analysis

JP2008037755A2  
Title/Abstract (7)

Non Latin text

View Biblio.  
Hit Analysis

JP2008037755A2  
Title/Abstract (7)

Non Latin text

【選択図】なし

Claim(s):

1. 下記一般式【1】で示

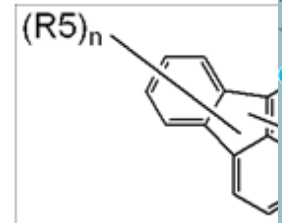
JP2008037755 A2 [Translate to English](#)

Title :  
アミン化合物および有機発光素子

Abstract :

【課題】高効率で高輝度

【解決手段】下記一般式



【選択図】なし

Claim(s):

1. 下記一般式【1】で示

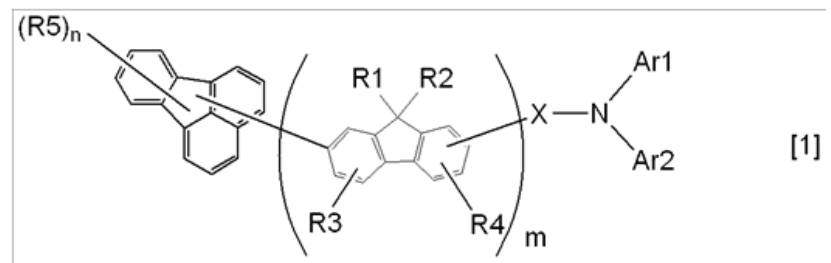
Machine Translation - JP2008037755 A2

Title:  
Amine compound and organic luminous element

Abstract:

<Topic>High brightness, the chemical compound for the organic luminous element which possesses efficiency.

SolutionsThe amine compound which with the below-mentioned general formula [1] is shown.



<Selective figure>It is not

Claim (s):

1. The amine compound which features that with the below-mentioned general formula [1] it is shown.



# Summary

- Easy use of an additional, important classification system
- Vital for checking market trends
- PatBase makes Asian data accessible, quickly
- More developments to come