

藥學科技二—藥化實驗報告

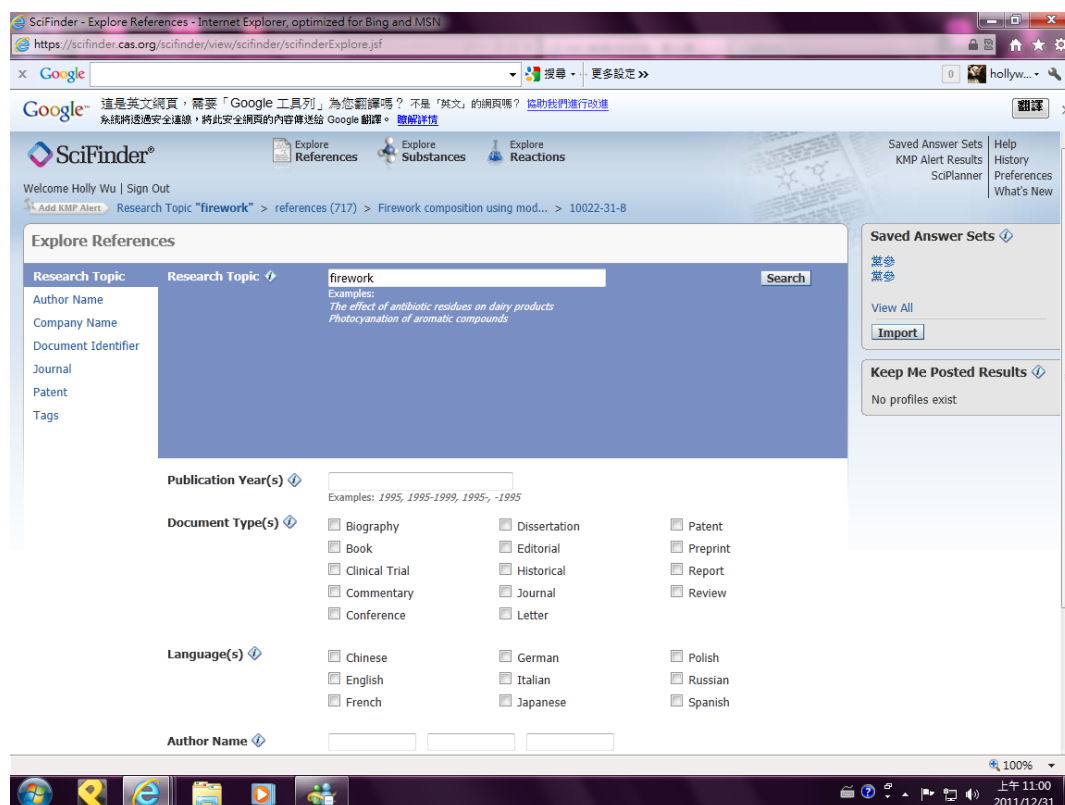
Scifinder & Thomson Innovation

藥三 D 班 吳紅意 B303098234

搜尋主題：firework

一、Scifinder

1. 進入主頁，打入欲搜尋的內容



SciFinder - Reference Answer Set - Internet Explorer, optimized for Bing and MSN
 https://scifinder.cas.org/scifinder/view/scifinder/scifinderExplore.jsf

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Research Topic "firework" > references (717) > Firework composition using mod... > 10022-31-8

References 717 References 0 Selected

Sort by: Accession Number

Answers per Page [20] 1 2 3 4 5 6 ... 36

Display: [icon]

1. Subtitle pattern firework extensible net rack [Full Text]
 By Yu, Benyou; Yu, Peisheng; Yu, Zhiyuan
 From Faming Zhuanli Shenqing (2011), CN 102288074 A 20111221. | Language: Chinese, Database: CAPLUS
2. Underwater emission apparatus [Full Text]
 By Teng, Yongde
 From Faming Zhuanli Shenqing (2011), CN 102288072 A 20111221. | Language: Chinese, Database: CAPLUS
3. Spherical pyrotechnic device ("powerball") with extendable ignition device and flattened base [Full Text]
 No Inventor data available
 From Ger. Gebrauchsmusterschrift (2011), DE 202011051133 U1 20111215. | Language: German, Database: CAPLUS
4. Preliminary study on air pollution source identification in Xinzhen, Beijing, using NAA and PIXE [Full Text]
 By Xiao, Cailin; Zhang, Guiying; Huang, Donghui; Ni, Bangfa; Liu, Cuxiong; Qin, Yali; Sun, Hongchao; Wang, Pingsheng; Tian, Weizhi
 From Journal of Radioanalytical and Nuclear Chemistry (2012), 291(1), 95-100. | Language: English, Database: CAPLUS
5. Laser firework igniter [Full Text]
 By Peng, Runwu; Liu, Yaru; Liu, Qicheng
 From Faming Zhuanli Shenqing (2011), CN 102269545 A 20111207. | Language: Chinese, Database: CAPLUS
6. Precise firework punching machine [Full Text]
 By Luo, Xipang; Li, Yundhi; Zou, Chungen; Jin, Weiping; Zhao, Jiyu
 From Faming Zhuanli Shenqing (2011), CN 102269550 A 20111207. | Language: Chinese, Database: CAPLUS
7. Firework effect member for displaying aerial pattern [Full Text]
 By Yu, Benyou; Yu, Peisheng; Yu, Zhiyuan; Xu, Tianfu

Analysis Refine

Analyze by: Author Name

Click bar to view only those references within the current answer set

Pan Renming 14

Yu Benyou 12

Hatanaka Shuji 10

Lin Xiangyang 10

Qian Xinming 10

Ding Dayu 9

Miyahara Akira 9

Miyake Atsumi 9

Ogawa Terushige 9

Yoshida Tadao 9

Show More

Categorize

2.選出感興趣的一篇論文資料

SciFinder - Firework compos... - Internet Explorer, optimized for Bing and MSN
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Research Topic "firework" > references (717) > Firework composition using mod... > 10022-31-8

Reference Detail

Get Substances Get Reactions Get Cited Get Citing Get Full Text Send to SciPlanner

Link Save Print Export

Return

20. Firework composition using modified barium nitrate as main oxidant

By: Pan, Gongpei; Guan, Hua; Chen, Xin; Ouyang, Dehua; Lv, Huiping; He, Zhenqiang
 Assignee: Nanjing University of Science and Technology, Peop. Rep. China

The firework compn. comprises oxidant I (modified barium nitrate) 7.8-11.4, oxidant II (potassium perchlorate) 2.9-5.2, combustible agent I (sulfur powder) 3-4, combustible agent II (aluminum powder) 2-3, and additive (expanded perlite powder) 1.6-2.5 wt. parts. The modified barium nitrate is prep'd. by performing recrystn. expansion of barium nitrate with inorg. foaming agent, and activating with thermal decompn. catalyst. The inorg. foaming agent includes carbonate, bicarbonate, oxalate or ammonium salt. The thermal decompn. catalyst is transition metal oxide, including cobalt oxide, cuprous oxide, nickel oxide, silver oxide or ferric oxide. The invention reduces usage amt. of aluminum powder and potassium perchlorate, to thereby lower firework cost.

Patent Information

Patent No.	Kind	Date	Application No.	Date
CN 102219624	A	Oct 19, 2011	CN 2011-10080033	Mar 31, 2011

Priority Application

CN 2011-10080033	Mar 31, 2011
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Indexing

Propellants and Explosives (Section 50-3)

Concepts

Fireworks
Oxidizing agents

Foaming agents
Thermal decomposition catalysts

Substances

1309-37-1 Ferric oxide, uses
1313-99-1 Nickel oxide, uses

Quick Links

0 Tags, 0 Comments

Patent Information

Oct 19, 2011
CN 102219624
A

Application

Mar 31, 2011
CN 2011-10080033

Priority

Mar 31, 2011
CN 2011-10080033

Source

Faming Zhuanli Shenqing
10pp.
Patent
2011
CODEN: CNXXEV

Accession Number

2011:1347856
CAN 155:592678
CAPLUS

內容如下：

Firework composition using modified barium nitrate as main oxidant

By: Pan, Gongpei; Guan, Hua; Chen, Xin; Ouyang, Dehua; Lv, Huiping; He, Zhenqiang

Assignee: Nanjing University of Science and Technology, Peop. Rep. China

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底下有列出文章中提到的觀念和成分，可以幫助我們了解這個研究的內容

The screenshot displays the SciFinder web interface within an Internet Explorer browser. The address bar shows the URL: <https://scifinder.cas.org/scifinder/view/scifinder/scifinderExplore.jsf>. The page features a Google search bar at the top, followed by a navigation menu with 'Indexing' and 'Substances' tabs. The 'Indexing' tab is active, showing a list of concepts under the heading 'Propellants and Explosives (Section 50-3)'. The concepts include 'Fireworks', 'Oxidizing agents', 'Foaming agents', 'Thermal decomposition catalysts', 'Transition metal oxides', 'Perlite', 'Bicarbonates', 'Quaternary ammonium compounds', and 'Carbonates'. Each concept is linked to a specific firework composition. The 'Substances' tab is also visible, showing a list of substances with their CAS numbers and descriptions. The substances include '1309-37-1 Ferric oxide, uses', '1313-99-1 Nickel oxide, uses', '1317-39-1 Cuprous oxide, uses', '11104-61-3 Cobalt oxide', '20667-12-3 Silver oxide', '10022-31-8P Barium nitrate', '7704-34-9 Sulfur, uses', '7778-74-7 Potassium perchlorate', '7429-90-5 Aluminum powder, uses', and 'powd.; firework compn. using modified barium nitrate as main oxidant'. The right sidebar contains metadata for the selected entry, including 'Patent 2011 CODEN: CNXXEV', 'Accession Number 2011:1347856 CAN 155:592678 CAPLUS', and 'Language Chinese'. The bottom of the screenshot shows the Windows taskbar with various application icons and the system clock indicating '上午 11:02 2011/12/31'.

SciFinder - Firework compos... - Internet Explorer, optimized for Bing and MSN
<https://scifinder.cas.org/scifinder/view/scifinder/scifinderExplore.jsf>
Google 搜尋 更多設定 >>
CN 2011-10080033 Mar 31, 2011

Indexing

Propellants and Explosives (Section 50-3)

Concepts

Fireworks
Oxidizing agents
Foaming agents
Thermal decomposition catalysts

firework compn. using modified barium nitrate as main oxidant

Transition metal oxides

firework compn. using modified barium nitrate as main oxidant
Catalyst use; Uses

Perlite

firework compn. using modified barium nitrate as main oxidant
Other use, unclassified; Uses

Bicarbonates
Quaternary ammonium compounds
Carbonates

firework compn. using modified barium nitrate as main oxidant
Other use, unclassified; Physical, engineering or chemical process; Process; Uses

Substances

1309-37-1 Ferric oxide, uses
1313-99-1 Nickel oxide, uses
1317-39-1 Cuprous oxide, uses
11104-61-3 Cobalt oxide
20667-12-3 Silver oxide

firework compn. using modified barium nitrate as main oxidant
Catalyst use; Uses

10022-31-8P Barium nitrate

firework compn. using modified barium nitrate as main oxidant
Industrial manufacture; Other use, unclassified; Properties; Preparation; Uses

7704-34-9 Sulfur, uses
7778-74-7 Potassium perchlorate

firework compn. using modified barium nitrate as main oxidant
Other use, unclassified; Uses

7429-90-5 Aluminum powder, uses

powd.; firework compn. using modified barium nitrate as main oxidant
Other use, unclassified; Uses

Patent
2011
CODEN: CNXXEV

Accession Number
2011:1347856
CAN 155:592678
CAPLUS

Language
Chinese

例如我對 Barium nitrate 感到好奇，點下他前面的序號，就可進入瞭解。

SciFinder - CAS Registry Number 10022-31-8 - Internet Explorer, optimized for Bing and MSN

https://scifinder.cas.org/scifinder/view/scifinder/scifinderExplore.jsf

Google 這是英文網頁，需要「Google 工具列」為您翻譯嗎？不是「英文」的網頁嗎？協助我們進行改進

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Research Topic "firework" > references (717) > Firework composition using mod... > 10022-31-8

Substance Detail

CAS Registry Number: 10022-31-8
(Component: 7697-37-2)
Ba · 2 H N O₃
Nitric acid, barium salt (2:1)
Nitric acid, barium salt (8Cl,9Cl); Barium dinitrate; Barium nitrate; Barium nitrate (Ba(NO₃)₂); Barium(II) nitrate

Chemical Structure: [O-][N+](=O)[O-].[O-][N+](=O)[O-].[Ba+2]

~5,755 References

Document Types: Book, Conference, Dissertation, Journal, Patent, Preprint, Report

CAS Role	Patents	Nonpatents	Nonspecific Derivatives from Patents	Nonspecific Derivatives from Nonpatents
Analytical Study	✓	✓		
Biological Study	✓	✓		
Combinatorial Study	✓	✓		
Formation, Nonpreparative	✓	✓		
Miscellaneous	✓	✓		
Occurrence	✓	✓		
Preparation	✓	✓	✓	✓
Process	✓	✓	✓	✓
Properties	✓	✓		✓
Prophetic in Patents	✓	✓		
Reactant or Reagent	✓	✓		✓
Uses	✓	✓	✓	✓

還可以用 Scifinder 的 chemical structure 的部分來搜尋，不斷延展你的知識範圍。

SciFinder - CAS Registry Number 10022-31-8 - Internet Explorer, optimized for Bing and MSN

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Biological Study	✓	✓		
Combinatorial Study	✓	✓		
Formation, Nonpreparative	✓	✓		
Miscellaneous	✓	✓		
Occurrence	✓	✓		
Preparation	✓	✓	✓	✓
Process	✓	✓	✓	✓
Properties	✓	✓		✓
Prophetic in Patents	✓	✓		
Reactant or Reagent	✓	✓		✓
Uses	✓	✓	✓	✓

Search Options:

- View Substance Detail
- Explore by Structure
- Synthesize this...
- Get Reactions where Substance is a
- Get Commercial Sources
- Get Regulatory Information
- Get References
- Export as Image
- Send to SciPlanner

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Explore Substances

A Java plug-in is required to edit the structure. Refer to the Help. [close](#)

Chemical Structure [Chemical Structure](#) [Search](#)

Markush
Molecular Formula
Substance Identifier

Search type: ☒ Exact Structure
☐ Substructure
☐ Similarity

☒ Show precision analysis

Characteristic(s)

☐ Single component
☐ Commercially available
☐ Included in reference(s)

Class(es)

☐ Alloys
☐ Coordination compounds
☐ Incompletely defined

☐ Mixtures
☐ Polymers
☐ Organics, and others not listed

Studies

☐ Analytical
☐ Biological
☐ Preparation
☐ Reactant or reagent

Saved Answer Sets

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Keep Me Posted Results

No profiles exist

心得：

平常論文搜尋習慣使用的是 NCBI 的 pubmed，他們的模式和 google 這一類搜尋網站比較類似，使用簡單，Scifinder 的使用就需要有人帶領入門，但習慣它們的模式後，會發現可以不斷蒐尋、延展，除了從文字資料，還可以用結構式，也能知道發生的方程式，還有一個可以編輯這些資料的平台，能把找尋的結構式放上去編輯，越使用越覺得有趣，而且多元的內容更加輔助了我們的學習，並且滿足了我們的好奇心。

二、Thomson Innovation

Thomson Innovation - Windows Internet Explorer

http://www.thomsoninnovation.com/tip-innovation/federatedSearch.do?searchType=Stanc

Quick Search - Patents

Quick Search: Patents

Patent Result Set

1,413 records found out of 18,395,623 searched (Display Limit 30,000)

Return to Search | Display & Sort Options

0 records selected

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Publication Number	Publication Date
US8026913B2	2011-09-27
Title: Image capture and buffering in a virtual world	
US8024472B1	2011-09-20
Title: Third party verification using override IP addresses	
US8022948B2	2011-09-20
Title: Image capture and buffering in a virtual world using situational measurement averages	
US8018432B1	2011-09-13
Title: User interfaces and methods to search content in a nonlinearly convergent manner	
US8013929B2	2011-09-06

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http://www.thomsoninnovation.com/tip-innovation/recordView.do?pager.offset=29&recordCount=30&parentIds=null&totalRecords=1413&fromRecordView=false

Patent Record View - US7989211B1

Record View: Patent US7989211B1

Add to Work File | Mark Record | Watch Record | Download | Print

Quick View

DWPI Title ?

Method for determining presence of e.g. perchlorate in e.g. ground water, involves binding surface-enhanced Raman scattering reagent to nitrate, measuring intensity of Raman scattering signal, and determining amount of nitrate

Original Title ?

Functionalized gold surface-enhanced raman scattering substrate for rapid and ultra-sensitive detection of anionic species in the environment

Abstract ?

This invention relates to the development of a new Raman enhancing reagent and a surface-enhanced Raman scattering (SERS) method for rapid and ultra-sensitive detection and identification of perchlorate (ClO_4^-) and other anions such as technetium (TcO_4^-), uranium and nitrate in environmental samples. The method involves the synthesis of controlled gold nanoparticles which are modified with amine functional groups such as 2-(dimethylamino)ethanethiol and N,N,N-trimethylaminethiol. These functionalized Au nanoparticles were found to be reactive with perchlorate and other anions and can be used to

Record 30 of 1413

Images

Image 1/9

Zoom (+)

AU NANOPARTICLE (~50nm)

Intensity (a.u.)

1000

2000

3000

4000

5000

6000

7000

8000

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内容如下：

DWPI Title

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Method for determining presence of e.g. perchlorate in e.g. ground water, involves binding surface-enhanced Raman scattering reagent to nitrate, measuring intensity of Raman scattering signal, and determining amount of nitrate

Original Title

?

Functionalized gold surface-enhanced raman scattering substrate for rapid and ultra-sensitive detection of anionic species in the environment

Abstract

?

This invention relates to the development of a new Raman enhancing reagent and a surface-enhanced Raman scattering (SERS) method for rapid and ultra-sensitive detection and identification of perchlorate (ClO_4^-) and other anions such as technetium (TcO_4^-), uranium and nitrate in environmental samples. The method involves the synthesis of controlled gold nanoparticles which are modified with amine functional groups such as 2-(dimethylamino)ethanethiol and N,N,N-trimethylaminethiol. These functionalized Au nanoparticles were found to be reactive with perchlorate and other anions and can be used to detect these anions by Raman spectroscopy at ultra low concentrations in complex environmental matrices. This invention overcomes the limitations of currently-available analytical techniques by offering an inexpensive, rapid, ultra-sensitive, and real-time identification and detection of perchlorate and other anions. The technique is not only sensitive but also highly specific because of the unique Raman vibrational bands of perchlorate and other anions.

First Claim

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1. A method for determining the presence or amount of perchlorate and nitrate in a test sample comprising:
 - providing a test sample having an amount of perchlorate and including nitrate;
 - adding a SERS reagent to said test sample, wherein said SERS reagent comprises:
 - a metal nanoparticle having a surface; and
 - a functional group, wherein said surface of said nanoparticle is modified by said wherein said surface is modified by said functional group, and wherein said functional group provides a positive charge to said surface;

- allowing said SERS reagent to bind to said perchlorate;
- measuring the intensity of the Raman scattering signal;
- determining the presence or amount of said perchlorate;
- allowing said SERS reagent to bind to said nitrate;
- measuring the intensity of the Raman scattering signal; and
- determining the presence or amount of said nitrate.

DWPI Title

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sample comprising:

- providing a test sample having an amount of perchlorate and including nitrate;
- adding a SERS reagent to said test sample, wherein said SERS reagent comprises:
 - a metal nanoparticle having a surface; and
 - a functional group, wherein said surface of said nanoparticle is modified by said functional group, wherein said surface is modified by said functional group, and wherein said functional group provides a positive charge to said surface;
- allowing said SERS reagent to bind to said perchlorate;
- measuring the intensity of the Raman scattering signal;
- determining the presence or amount of said perchlorate;
- allowing said SERS reagent to bind to said nitrate;
- measuring the intensity of the Raman scattering signal; and
- determining the presence or amount of said nitrate.

心得：

以使用方便度而言，**Thomson Innovation** 比 **Scifinder** 來得難，因在檢索上需要較詳細的資料，而搜尋出來的資料範圍比較廣泛，專利範圍較為狹窄，通常是特定一種技術或產品，所以比較適合專業性的檢索，另外，因為我們使用的版本屬簡易版，所以搜尋到的資料比較少。