

# 超硬材料工程

## SUPERHARD MATERIAL ENGINEERING

**3/2012**

ISSN 1673-1433



0 6 >

9 771673 143059

桂林矿产地质研究院主办  
国家特种矿物材料工程技术研究中心协办

## 目 次

### 研究和应用

- 钎焊金刚石工具钻孔加工工程陶瓷的扭矩研究 ..... 聂励鹏,林希宁,等(1)  
金刚石地质钻头制造工艺新技术的应用与发展 ..... 侯家祥,程文耿(5)  
PDC 刀具切削硅铝合金的有限元模拟分析 ..... 冯吉福,李立惟,等(10)  
大颗粒立方氮化硼单晶合成 ..... 郭增印,栗正新,等(16)  
PcBN 刀具在干切削中的应用研究 ..... 邓福铭,张丹,等(19)  
高品级人造金刚石合成的晶体学规律及分析 ..... 武艳强,林玉,等(22)  
钎焊金刚石 / cBN 砂轮基体工艺方法初探 ..... 袁建新,王永强,等(27)

### 产业与综述

- 爆轰纳米金刚石分离与纯化研究进展 ..... 王志敏,苏朝化,等(30)  
剖析美国工业金刚石的发展轨迹(上) ..... 谈耀麟(34)  
CVD 金刚石薄膜技术发展现状及展望(下) ..... 杨德威,栗正新,等(39)  
硅切割用电镀金刚石线锯的研究现状 ..... 蒋燕麟,冯吉福,等(43)  
金刚石线锯切割设备现状分析 ..... 周世威,郑超,等(49)

### 国外技术

- 金刚石表面织构化处理技术(上) ..... 谈耀麟 编译(53)

### 珠宝专栏

- 褐黄色 IaA+Ib 型合成金刚石的光谱测试分析 ..... 赵倩怡,张攀(57)

### 其 它

- 页岩气开发对金刚石单晶整体需求拉动有限(4) 胜诉美国反倾销案对丹阳金刚石锯片意义重大(9) 专利信息 2 则(15) 专利信息 1 则(26) 非法提取金刚石 5 人被刑拘(29) 江南红箭将造金刚石 收购中南钻石全部股权(56) 物理所金刚石氮空位中心量子信息和计算合作研究获进展(60) WTO 通过中美金刚石锯片报告认定美违规(61) 探营鄱阳“金刚石军团” 打造工具之乡(61)

## CONTENTS

Investigations of torque for drilling engineering ceramics with brazed diamond tools .....	NIE Li-peng , LIN Xi-ning , et al(1)
Application and development of new technology for manufacturing geological diamond drill bits .....	HOU Jia-xiang , CHENG Wen-geng(5)
Analysis on PDC cutting silicon aluminum alloy with finite element method .....	FENG Ji-fu , LI Li-wei , et al(10)
Synthesis technology of large CBN single crystal .....	GUO Zeng-yin , LI Zheng-xin , et al(16)
Application of P <sub>c</sub> BN cutting tools in dry cutting .....	DENG Fu-ming , ZHANG Dan , et al(19)
The crystallography rule and analysis of the high grade diamond synthesis .....	WU Yan-qiang , LIN Yu , et al(22)
Preliminary approach for process methods on the brazing diamond/CBN grinding wheel base .....	YUAN Jian-xin , WANG Yong-qiang , et al(27)
Progress on separation and purification of detonation nano-diamond .....	WANG Zhi-min , SU Chao-hua , et al (30)
Analyse the development path of industrial diamond in the United States .....	TAN Yao-lin(34)
The current situation and development of CVD diamond film techniques .....	YANG De-wei , LI Zheng-xin , et al(39)
Research progress in electroplated diamond wire saw for cutting silicon .....	JIANG Yan-lin , FENG Ji-fu , et al(43)
The status analysis of diamond wire saw cutting equipment .....	ZHOU Shi-wei , ZHENG Chao , et al(49)
Spectrum testing analysis on IaA+Ib brownish yellow synthetic diamond .....	ZHAO Qian-yi , ZHANG Pan(57)

\* \* \* \* \*

**Bulletin:** The Journal is embodied by domestic and international electric mediums including Wanfang Database etc. The author's remuneration paid to the authors also includes the rights and interests of this part. Author has to promise that the contribution to the Journal should not violate the other's intellect property.