

## 《岩石矿物学杂志》2017年总目次

### 第36卷 第1期

#### 专题研究

- 东阿拉善地块诺尔公群石英岩的碎屑锆石年龄特征——物源区制约及其地质意义 ..... 宫江华, 张建新, 王宗起, 王东升, 杜显峰 (1)  
江南造山带西段桂北龙胜地区金车辉长岩矿物化学研究及其地质意义 ..... 寇彩化, 刘燕学, 李廷栋, 丁孝忠, 张 恒 (20)  
滇西双江县勐库地区退变质榴辉岩中闪石类矿物的成因研究 ..... 陈光艳, 徐桂香, 孙载波, 田素梅, 张 虎, 黄 亮, 周 坤 (36)  
云南来利山锡矿矿物学研究及氢氧同位素特征 ..... 张 弘, 申俊峰, 董国臣, 刘圣强, 王冬丽 (48)  
滇西兰坪铅锌矿区土壤重金属含量的高光谱反演分析 ..... 程先锋, 宋婷婷, 陈 玉, 魏永明, 沈金祥, 齐武福 (60)  
琼东南盆地崖北凹陷崖城组煤系烃源岩发育环境及控制因素 ..... 成 晨, 高 亮 (70)  
高温改性锌铁尖晶石的晶体化学与磁性研究 ..... 黎晏彰, 李 艳, 丁 聪, 鲁安怀, 丁竑瑞, 姜 政 (80)  
赤铁矿高温原位X射线衍射研究 ..... 张 楠, 王河锦, 王冠玉 (89)
- 环境矿物学**
- 集成回填材料的渗透特性研究 ..... 范 香, 易发成, 杜金阳, 朱宝龙 (96)  
黏土质白云岩去除水中铅离子作用及机理 ..... 田漪兮, 李宏伟, 谢晶晶, 邱 高, 陈天虎 (104)  
生物纳米FeS包覆层对灰岩中和能力的影响 ..... 何立乐, 周 磊, 周继梅, 刘 璔 (110)
- 宝玉石矿物学**
- 陕西洛南绿松石的结构构造特征研究 ..... 罗远飞, 余晓艳, 周越刚, 杨心鸽 (115)  
高温高压处理褐色钻石改色机理分析 ..... 金慧颖, 金英福 (124)
- 其他**
- 致谢 ..... (95)  
《岩石矿物学杂志》荣获“2016中国国际影响力优秀学术期刊”称号 ..... (103)  
2016年《岩石矿物学杂志》优秀论文奖获得者简介——施建荣 ..... (129)  
2016年《岩石矿物学杂志》优秀论文奖获得者简介——刘英超 ..... (130)

### 第36卷 第2期

#### 专题研究

- 北山造山带白云山蛇绿混杂岩的地球化学特征、时代及地质意义 ..... 孙立新, 张家辉, 任邦方, 牛文超, 任云伟, 张 阔 (131)  
准噶尔盆地南缘晚古生代双峰式火山岩成因机制及其地球动力学背景 .....  
..... 赵乐强, 秦 峰, 贾凡建, 马 骥, 边雪梅, 刘 慧, 高剑雄 (148)  
滇西双江县勐库地区湾河蛇绿混杂岩的形成时代、岩石地球化学特征及地质意义 .....  
..... 刘桂春, 孙载波, 曾文涛, 冯庆来, 黄 亮, 张 虎 (163)  
安徽铜陵矿集区南部新生代岩浆活动——来自科学深钻TK01的证据 ..... 李 骏, 杨竹森, 徐文艺, 杨 丹 (175)  
内蒙古东乌旗泥盆纪塔尔巴格特组凝灰岩锆石U-Pb年龄及其地质意义 .....  
..... 李艳锋, 牛文超, 张天福, 程银行, 李 敏, 段连峰, 王树庆 (187)  
北祁连中段高压/低温混杂带——岩石学、地球化学和年代学证据 ..... 喻星星, 张建新, 毛小红, 路增龙 (196)  
扬子板块北缘下志留统龙马溪组重晶石结核特征及其成因机制分析 .....  
..... 翁博文, 刘树根, 冉 波, 叶 豪, 杨 迪, 黄 瑞, 夏国栋, 焦 塘 (213)

- 西藏首例云英岩型钨矿——甲岗雪山 W-Mo 多金属矿床地质特征研究 ..... 徐培言, 郑远川, 付 强, 杨竹森, 沈 阳, 马 睿, 王梓轩, 吴昌坦 (227)  
 西藏列廷冈-勒青拉矽卡岩型 Fe-Cu-Pb-Zn 多金属矿床白云母<sup>40</sup>Ar/<sup>39</sup>Ar 年龄及其地质意义 ..... 周梦林, 周向科, 卢世银, 马 旺 (241)  
 新疆皮山镁质矽卡岩矿床(含糖玉)成因及锆石 SHRIMP U-Pb 定年 ..... 刘喜锋, 刘 琰, 李自静, 买托乎提·阿不都瓦衣提, 田广印, 郭东旭 (259)
- 环境矿物学**
- 海洋粘土矿物与颗粒藻 *Emiliania huxleyi* 共培养的实验研究 ..... 邹 翔, 孙仕勇, 林 森, 申珂璇, 谭道永, 董发勤 (274)

### 第36卷 第3期

#### 专题研究

- 老挝班康姆铜金矿床火山-侵入杂岩地球化学特征及地质意义 ..... 赵延朋, 康铁锁, 宁庚陈, 葛 华, 潘 瀚 (281)  
 新疆西准噶尔库尔尕克希岩体年代学、地球化学特征及岩石成因 ..... 段丰浩, 李永军, 陈荣光, 王 冉, 支 倩, 马勇林, 石 歌 (295)  
 黑龙江河口林场锡多金属矿床地质特征及矿床成因 ..... 王 硕, 孙丰月, 王 冠, 刘 凯, 李睿华, 郭花利 (312)  
 江西金鸡窝铜矿床花岗闪长斑岩黑云母矿物学特征及其对岩石成因与成矿的指示 ..... 杜后发, 赖天功, 江媛媛, 范鹏飞, 龚维强 (329)  
 川西冕宁-德昌稀土矿带正长岩-碳酸岩杂岩体中锆石矿物学特征与矿化过程 ..... 郭东旭, 刘 琰, 陈 超, 姜 恒, 李自静, 李德良, 马 旺 (343)  
 内蒙古黄岗梁铁锡矿床闪锌矿 LA-ICP-MS 微量元素组成及其指示意义 ..... 徐卓彬, 邵拥军, 杨自安, 刘忠法, 王文兴, 任兴民 (360)  
 滇东南马关木厂新生代玄武岩中橄榄岩包体的含水性 ..... 朱 萌, 王 蓉, 谢志鹏, 范爱玲 (371)  
 云南省勐腊县曼洒菱铁矿床 Fe 同位素特征及其地质意义 ..... 坚润堂, 杨 帆, 赵献昆 (389)  
 柴窝铺盆地及其北缘地区中新生代沉积岩源区构造背景和物源属性研究 ..... 赵 恒, 郭建明, 刘文汇, 樊海龙, 许世阳, 郑建京 (402)

#### 宝玉石矿物学

- 云南保山南红玛瑙矿物学特性及致色机理探究 ..... 郭 威, 王时麒 (419)  
 其他
- 推荐一本英文专著 *Metamorphic Rocks, A Classification and Glossary of Terms* ..... 沈其韩, 宋会侠 (431)

### 第36卷 第4期

#### 专题研究

- 内蒙古二连浩特东北部花岗岩的年代学、地球化学特征及构造意义 ..... 孔令杰, 韩宝福, 郑 波, 冯丽霞, 王增振, 苏 犀 (433)  
 阿尔泰造山带青河地区早泥盆世和寒武纪末花岗岩的年代学、岩石成因及其地质意义 ..... 黄博涛, 董增产, 潘 峰, 王 凯 (458)  
 粤西福湖岭混合岩及其原岩的地质年代学研究 ..... 周登熳, 徐夕生 (473)  
 南岭地区与东南沿海地区中生代花岗岩放射性地球化学特征及岩石圈热结构对比研究 ..... 林乐夫, 孙占学, 王安东, 刘金辉, 万建军, 李小聪, 罗贤文 (488)  
 新疆西南天山高压-超高压变质带中磷灰石的地球化学研究 ..... 郑萌萌, 张丽娟, 吕 增, 张立飞 (501)

- 东天山二叠纪镁铁-超镁铁质成矿岩体造岩矿物特征及其成因意义 ..... 邯延清,钱壮志,徐刚,段俊,陈炳龙,孙涛,姜超,任萌(519)  
江西乐安居隆庵铀矿床绿泥石特征及地质意义 ..... 李海东,潘家永,刘文泉,江卫兵,李俊,梁园园,谢强,鲁彦(535)  
四川雪宝顶W-Sn-Be矿床矿物学特征和形成机制 ..... 刘琰(549)  
安徽铜陵地区胡村铜矿床流体包裹体研究 ..... 郑平,文春华(564)  
塔里木大火成岩省瓦吉里塔格霞石岩稀有气体同位素特征及其地质意义 ..... 孔维亮,张招崇,程志国(581)

### 第36卷 第5期

#### 前言

- 安徽东溪浅成低温热液型金矿床成矿流体特征和形成时代——流体包裹体和赋矿安山岩U-Pb年代学约束 ..... 朱江,彭三国,彭练红,雷天赐,龚银杰,刘兴平(593)  
南秦岭竹溪县天宝乡粗面岩地球化学特征与铌成矿 ..... 杨成,刘成新,刘万亮,万俊,段先锋,张众(605)  
桐柏-大别造山带南缘中侏罗世基性岩的发现及其构造意义——来自锆石U-Pb年代学和Hf同位素证据 ..... 刘杰,邓新,彭练红,刘浩,徐大良(619)  
西大别造山带夏店岩体锆石U-Pb年代学、地球化学特征及其A型花岗岩的厘定 ..... 万俊,吴波,郭盼,刘万亮,刘成新(633)  
武当地块与扬子陆核区新元古代早期沉积岩碎屑锆石U-Pb年代学对比及其地质意义 ..... 卢山松,江拓,彭三国,彭练红,谭娟娟,邱啸飞(646)  
大别山北麓四面山含榴混合花岗岩地球化学特征及地质意义 ..... 李肖龙,李山坡,申硕果,冯一凡,张莹歌,程国安(655)  
鄂西北构家河金矿床成矿流体特征 ..... 王刚,武昱东,贾少华,张晗,陈雷,王宗起(668)  
南秦岭竹山地区早古生代碱性岩浆活动及其相关铌稀土成矿的若干认识 ..... 朱江,程昌红,王连训,彭三国,彭练红,许珂(681)  
北大别山牢山寨岩体地球化学特征和LA-ICP-MS锆石U-Pb年龄 ..... 唐相伟,王云,郭跃闪,熊平良,刘沛(691)  
湖北大悟娘娘顶钨铍矿地质特征及找矿方向 ..... 屠江海,尤静静(703)  
河南老湾金矿床成矿流体性质与同位素地球化学示踪 ..... 陈加伟,孙保平,李佩,裴满意,任强(713)  
湖北竹溪蔓荆沟碱性正长岩地球化学特征及其构造环境分析 ..... 程钊,冯久林,朱小平,李平,吴凤贤,王桥(725)  
湖北大悟大磊山金矿床成因与控矿构造 ..... 曹正琦,谢应波,周向辉,李华亮,蔡逸涛,李成凯,宋汉,吴波,李琳静(733)

#### 非主题来稿

- 新疆东准噶尔绿石沟高Ba-Sr石英二长岩的锆石U-Pb年龄、成因及地质意义 ..... 赵建新,童英,孟贵祥,王涛,张招崇,张建军(743)  
塔里木盆地库车坳陷古新统一始新统蒸发岩地球化学特征及成钾分析——以KL4井为例 ..... 徐洋,刘成林,焦鹏程,陈永志,曹养同(755)

### 第36卷 第6期

- 3种典型富锰沉积物的形貌学与矿物学特征 ..... 许晓明,李艳,丁竑瑞,李岩,鲁安怀(765)  
云南大屯锡粗精矿工艺矿物学研究 ..... 周耀文,文书明,王伊杰,张谦(779)  
德兴铜矿堆浸场矿石矿物学、Cu伴生元素地球化学特征及意义 ..... 高知睿,赵元艺,曹冲,常玉虎(785)  
纤蛇纹石/酸浸二氧化硅负载TiO<sub>2</sub>复合材料的结构性能及其降解罗丹明B的实验研究 ..... 曹曦,传秀云,李爱军,黄杜斌(800)  
天然闪锌矿矿物学特征与光催化性能 ..... 沈灿,鲁安怀,谷湘平(807)

- 球粒状和棒状纳米赤铁矿光电化学特性研究 ..... 孙曼仪,任桂平,鲁安怀,李 艳,丁竑瑞 (817)  
纳米赤铁矿电极光电催化特性及苯酚降解活性研究 ..... 任桂平,孙曼仪,鲁安怀,李 艳,丁竑瑞 (825)  
锐钛矿光电子强化黑曲霉吸附铅离子实验研究 ..... 丁 杨,郝瑞霞,任桂平,王明粲,鲁安怀 (833)  
生物质炭负载纳米零价铁对水中硝态氮的还原去除机理研究 ..... 刘雪妮,吴宏海,张苑芳,管玉峰 (842)  
太阳能电池协同强化水钠锰矿光电催化染料降解研究 ..... 任桂平,孙 元,孙曼仪,鲁安怀,李 艳,丁竑瑞 (851)  
电流对钋青霉菌吸附和固定铅离子的响应机制 ..... 王明粲,郝瑞霞,丁 杨 (858)  
巯基有机硅烷嫁接高岭石对 Cd( II) 的吸附性能研究 ..... 李 晓,吴宏海,宋振豪,管玉峰 (865)  
溶出珊瑚砂中 Ca<sup>2+</sup>、Mg<sup>2+</sup> 的动力学实验研究及其影响因素 ..... 万天琦,赵志伟,敖 漪,刘 杰,彭 伟 (873)  
Fe<sup>2+</sup>活化过硫酸盐在石油污染土壤中修复实验研究 ..... 张译之,贾汉忠,汪立今 (881)  
固体核磁光谱法研究镁铝复合氧化物的水热转化机制 ..... 陈漫游,陶 奇,何宏平,吉世超,李尚颖,张朝群 (887)  
PM<sub>2.5</sub>降尘诱导 A549 细胞 G2/M 期阻滞的机制研究 ..... 杨 洁,霍婷婷,王玉琳,董发勤,曾娅莉,邓建军 (894)  
正常菌与可吸入矿物细颗粒作用致突变性研究 ..... 马 骥,董发勤,邓建军,曾娅莉 (903)  
人体几种典型病理性钙化物中碳羟磷灰石的红外光谱研究 .....  
..... 张 岩,李 艳,鲁安怀,王长秋,梅 放,柳剑英,杨重庆,李 康 (909)  
基于多次非暴露式气管滴注的染毒法研究温石棉致大鼠肺损伤的作用 .....  
..... 柏 琪,崔 琛,张青碧,霍婷婷,查雨欣,邓建军 (916)  
**非主题来稿**  
川南普格暗色团块玄武岩中的沥青与自然铜特征及其成因 .....  
..... 张良钜,李鹏飞,阮青锋,梁 洁,杨育富,李东升,曾伟来 (925)  
内蒙古胜利煤田 0-1 孔煤中微量元素地球化学特征 ..... 徐晓琴 (933)  
**其他**  
《岩石矿物学杂志》2017 年总目次 ..... (941)

# Acta Petrologica et Mineralogica

2017 (Vol. 36)

## Contents

### No. 1

- Detrital zircon age characteristics of quartzites from Nuoergong Group in eastern Alxa Block: Provenance and geological significance .....  
 ..... GONG Jiang-hua, ZHANG Jian-xin, WANG Zong-qi, WANG Dong-sheng and DU Xian-feng (1)
- Mineralogy and mineral chemistry of the Jinche gabbro in the Longsheng area of northern Guangxi in the western segment of the Jiangnan Orogen and its geological significance ..... KOU Cai-hua, LIU Yan-xue, LI Ting-dong, DING Xiao-zhong and ZHANG Heng (20)
- Genetic study of amphiboles in retrograded eclogites from Mengku area, Shuangjiang County, western Yunnan Province .....  
 ..... CHEN Guang-yan, XU Gui-xiang, SUN Zai-bo, TIAN Su-mei, ZHANG Hu, HUANG Liang and ZHOU Kun (36)
- Mineralogical research and H-O isotopic characteristics of the Lailishan tin deposit in Yunnan Province .....  
 ..... ZHANG Hong, SHEN Jun-feng, DONG Guo-chen, LIU Sheng-qiang and WANG Dong-li (48)
- Retrieval and analysis of heavy metal content in soil based on measured spectra in the Lanping Zn-Pb mining area, western Yunnan Province .....  
 ..... CHENG Xian-feng, SONG Ting-ting, CHEN Yu, WEI Yong-ming, SHEN Jin-xiang and QI Wu-fu (60)
- Depositional environment and controlling factors of coal measures source rocks of Yacheng Formation in Yabei depression of Qiongdongnan basin .....  
 ..... CHENG Chen and GAO Liang (70)
- Researches on crystal chemistry and magnetic property of high-temperature modified franklinite .....  
 ..... LI Yan-zhang, LI Yan, DING Cong, LU An-huai, DING Hong-rui and JIANG Zheng (80)
- In situ high temperature X-ray diffraction study of hematite ..... ZHANG Nan, WANG He-jin and WANG Guan-yu (89)
- The permeability characteristics of integrated backfill materials ..... FAN Xiang, YI Fa-cheng, DU Jin-yang and ZHU Bao-long (96)
- The function and mechanism of the removal of lead ions from aqueous solutions by clayey dolomite .....  
 ..... TIAN Yi-xi, LI Hong-wei, XIE Jing-jing, QIU Gao and CHEN Tian-hu (104)
- The effect of bio-nano FeS coating layer on neutralization capability of limestone ..... HE Li-le, ZHOU Lei, ZHOU Ji-mei and LIU Jing (110)
- A study of texture and structure of turquoise from Luonan, Shaanxi Province .....  
 ..... LUO Yuan-fei, YU Xiao-yan, ZHOU Yue-gang and YANG Xin-ge (115)
- Mechanism analysis of the color enhancement of the brown tinted diamonds with HPHT ..... JIN Hui-ying and JIN Ying-fu (124)

### No. 2

- Geochemical characteristics and U-Pb age of Baiyunshan ophiolite mélange in the Beishan orogenic belt and their geological implications ..... SUN Li-xin, ZHANG Jia-hui, REN Bang-fang, NIU Wen-chao, REN Yun-wei and ZHANG Kuo (131)
- Petrogenesis of Late Paleozoic bimodal volcanic rocks on the southern margin of the Junggar Basin and its geodynamic significance ..... ZHAO Le-qiang, QIN Feng, JIA Fan-jian, MA Ji, BIAN Xue-mei, LIU Hui and GAO Jian-xiong (148)
- The age of Wanhe ophiolitic mélange from Mengku area, Shuangjiang County, western Yunnan Province, and its geological significance ..... LIU Gui-chun, SUN Zai-bo, ZENG Wen-tao, FENG Qing-lai, HUANG Liang and ZHANG Hu (163)
- The evidence of Cenozoic magmatic activity from science deep drilling TK01 in the southern part of the Tongling ore concentration area, Anhui Province ..... LI Jun, YANG Zhu-sen, XU Wen-yi and YANG Dan (175)
- Zircon U-Pb age of the tuff from Devonian Tarbaget Formation in Dong Ujimqin Banner, Inner Mongolia, and its geological implication ..... LI Yan-feng, NIU Wen-chao, ZHANG Tian-fu, CHENG Yin-hang, LI Min, DUAN Lian-feng and WANG Shu-qing (187)
- High pressure/low-temperature mélange in the central North Qilian Mountains: Evidence from Petrology, geochemistry and geochronology .....  
 ..... YU Xing-xing, ZHANG Jian-xin, MAO Xiao-hong and LU Zeng-long (196)
- An analysis of barite concretions from lower Silurian Longmaxi Formation on the northern margin of the Yangtze block and their genetic mechanism ..... ZAN Bo-wen, LIU Shu-gen, RAN Bo, YE Yue-hao, YANG Di, HUANG Rui, XIA Guo-dong and JIAO Kun (213)
- Geology of the Jiagangxueshan W-Mo polymetallic deposit-the first greisen-type W deposit in Tibet .....  
 ..... XU Pei-yan, ZHENG Yuan-chuan, FU Qiang, YANG Zhu-sen, SHEN Yang, MA Rui, WANG Zi-xuan and WU Chang-da (227)

- Ar-Ar age of muscovite from the Litinggang-Lejingla Fe-Cu-Pb-Zn deposit in Tibet and its geological significance ..... ZHOU Meng-lin, ZHOU Xiang-ke, LU Shi-yin and MA Wang (241)  
 The genesis and SHRIMP U-Pb zircon dating of the Pishan brown nephrite-bearing Mg-skarn deposit in Xinjiang ..... LIU Xi-feng, LIU Yan, LI Zi-jing, Maituohuti Abuduwayiti, TIAN Guang-yin and GUO Dong-xu (259)  
 An experimental study of co-culturing marine clay minerals and *Emiliana huxleyi* ..... ZOU Xiang, SUN Shi-yong, LIN Sen, SHEN Ke-xuan, TAN Dao-yong and DONG Fa-qin (274)

### No. 3

- Geochemical characteristics of the volcanic intrusive complex in the Pangkuam copper-gold deposit of Laos and its geological significance ..... ZHAO Yan-peng, KANG Tie-suo, NING Geng-chen, GE Hua and PAN Han (281)  
 Chronology, geochemical characteristics and petrogenesis of Kuergakexi granite in western Junggar Basin, Xinjiang ..... DUAN Feng-hao, LI Yong-jun, CHEN Rong-guang, WANG Ran, ZHI Qian, MA Yong-lin and SHI Ge (295)  
 Geological characteristics and genesis of the Hekoulinchang tin-polymetallic deposit in Baoding, Heilongjiang Province ..... WANG Shuo, SUN Feng-yue, WANG Guan, LIU Kai, LI Rui-hua and GUO Hua-li (312)  
 Mineral chemistry of biotites from the grandiorite porphyry around the Jinjiwo copper deposit in the Jirui ore district: Implications for petrogenesis and mineralization ..... DU Hou-fa, LAI Tian-gong, JIANG Yuan-yuan, FAN Peng-fei and GONG Wei-qiang (329)  
 Mineral characteristics of zircons in the syenite-carbonatite complex in the Mianning-Dechang REE ore belt, Sichuan Province, SW China: Indicative of REE mineralization ..... GUO Dong-xu, LIU Yan, CHEN Chao, JIANG Heng, LI Zi-jing, LI De-liang and MA Wang (343)  
 LA-ICP-MS analysis of trace elements in sphalerite from the Huanggangliang Fe-Sn deposit, Inner Mongolia, and its implications ..... XU Zhuo-bin, SHAO Yong-jun, YANG Zi-an, LIU Zhong-fa, WANG Wen-xing and REN Xing-min (360)  
 Water content of peridotite xenoliths in Cenozoic basalt from Muchang of Maguan, southeastern Yunnan Province ..... ZHU Meng, WANG Rong, XIE Zhi-peng and FAN Ai-ling (371)  
 The Fe isotope characteristics of the Mansa siderite deposit in Mengla County of Yunnan Province and their geological significance ..... JIAN Run-tang, YANG Fan and ZHAO Xian-kun (389)  
 A study of tectonic setting and provenance of Mesozoic and Cenozoic sedimentary rocks in Chaiwopu Basin and its northern margin ..... ZHAO Heng, GUO Jian-ming, LIU Wen-hui, FAN Hai-long, XU Shi-yang and ZHENG Jian-jing (402)  
 Mineralogical characteristics and coloration mechanism of Nanhong agate from Baoshan, Yunnan Province ..... GUO Wei and WANG Shi-qi (419)

### No. 4

- Geochronology, geochemistry and tectonic significances of the granites to the northeast of Erenhot, Inner Mongolia ..... KONG Ling-jie, HAN Bao-fu, ZHENG Bo, FENG Li-xia, WANG Zeng-zhen and SU Li (433)  
 Geochronology, petrogenesis and geological significance of the early Devonian and terminal Cambrian granites in Qinghe area of China's Altay orogenic belt ..... HUANG Bo-tao, DONG Zeng-chan, PAN Feng and WANG Kai (458)  
 Geochronology of Fuhuling migmatite and its protolith in western Guangdong ..... ZHOU Deng-yun and XU Xi-sheng (473)  
 Radioactive geochemical characteristics of Mesozoic granites from Nanling region and southeast coastal region and their constraints on lithospheric thermal structure ..... LIN Le-fu, SUN Zhan-xue, WANG An-dong, LIU Jin-hui, WAN Jian-jun, LI Xiao-cong and LUO Xian-wen (488)  
 Geochemistry of apatite from HP-UHP metamorphic belt in southwestern Tianshan Mountains, Xinjiang ..... ZHENG Meng-meng, ZHANG Li-juan, LÜ Zeng and ZHANG Li-fei (501)  
 Rock-forming mineral features of Permian mineralized mafic-ultramafic intrusions in East Tianshan Mountains and their implications for intrusion generation ..... FENG Yan-qing, QIAN Zhuang-zhi, XU Gang, DUAN Jun, CHEN Bing-long, SUN Tao, JIANG Chao and REN Meng (519)  
 Mineral characteristics and geological significance of chlorite from the Julong'an uranium deposit in Le'an, Jiangxi Province ..... LI Hai-dong, PAN Jia-yong, LIU Wen-quan, JIANG Wei-bing, LI Jun, LIANG Yuan-yuan, XIE Qiang and LU Yan (535)

Mineralogical characteristics and genetic mechanism of the Xuebaoding deposit in northwestern Sichuan Province .....	LIU Yan (549)
Fluid inclusion evidence for the Hucun copper ore deposit in Tongling area of Anhui Province .....	ZHENG Ping and WEN Chun-hua (564)
Noble gas isotopic characteristics and geological significance of Wajilitag nephelinites in Tarim large igneous province .....	KONG Wei-liang, ZHANG Zhao-chong and CHENG Zhi-guo (581)

**No. 5**

Geology, fluid inclusion characteristics, and U-Pb age of the Dongxi epithermal gold deposit, Anhui Province .....	ZHU Jiang, PENG San-guo, PENG Lian-hong, LEI Tian-ci, GONG Yin-jie and LIU Xing-ping (593)
Geochemical characteristics of trachyte and Nb mineralization process in Tianbao Township, Zhuxi County, Southern Qinling .....	YANG Cheng, LIU Cheng-xin, LIU Wan-liang, WAN Jun, DUAN Xian-feng and ZHANG Zhong (605)
Discovery and tectonic significance of Middle Jurassic basic rocks on the southern margin of the Tongbai-Dabie orogenic belt: Evidence from zircon U-Pb geochronology and Hf isotope .....	LIU Jie, DENG Xin, PENG Lian-hong, LIU Hao and XU Da-liang (619)
Zircon U-Pb dating and geochemical characteristics of the Xiadian magmatic rock body in Western Dabie orogenic belt and its redefinition as the A-type granite .....	WAN Jun, WU Bo, GUO Pan, LIU Wan-liang and LIU Cheng-xin (633)
Comparison of detrital zircon U-Pb geochronology between the Wudang block and the Yangtze continental nucleus in terms of Neoproterozoic sedimentary rocks .....	LU Shan-song, JIANG Tuo, PENG San-guo, PENG Lian-hong, TAN Juan-juan and QIU Xiao-fei (646)
Geochemical characteristics of the Simianshan garnet-bearing migmatitic granite at the northern foot of the Dabie Mountain and its geological significance .....	LI Xiao-long, LI Shan-po, SHEN Shuo-guo, FENG Yi-fan, ZHANG Ying-ge and CHENG Guo-an (655)
Geochemical characteristics of ore-forming fluid in the Goujiahe gold deposit, northwest Hubei Province .....	WANG Gang, WU Yu-dong, JIA Shao-hua, ZHANG Han, CHEN Lei and WANG Zong-qi (668)
Some new knowledge concerning Silurian alkaline magmatism and related Nb-REE mineralization in the Zhushan region, South Qinling .....	ZHU Jiang, CHENG Chang-hong, WANG Lian-xun, PENG San-guo, PENG Lian-hong and XU Ke (681)
Geochemical characteristics and LA-ICP-MS zircon U-Pb dating of Laoshanzhai rock mass in North Dabie Mountain .....	TANG Xiang-wei, WANG Yun, GUO Yue-shan, XIONG Ping-liang and LIU Pei (691)
Geological characteristics and prospecting direction of the Niangniangding tungsten-beryllium ore deposit in Hubei Province .....	TU Jiang-hai and YOU Jing-jing (703)
The properties of ore-forming fluids and isotope geochemical tracing of the Laowan gold deposit, Henan Province .....	CHEN Jia-wei, SUN Bao-ping, LI Pei, PEI Man-yi and REN Qiang (713)
Geochemical characteristics and tectonic setting of the alkaline synthesis in Zhuxi, Hubei Province .....	CHENG Zhao, FENG Jiu-lin, ZHU Xiao-ping, LI Ping, WU Feng-xian and WANG Qiao (725)
Origin and ore-controlling structure of the Daleishan gold deposit in Dawu area, Hubei Province .....	CAO Zheng-qi, XIE Ying-bo, ZHOU Xiang-hui, LI Hua-liang, CAI Yi-tao, LI Cheng-kai, SONG Han, WU Bo and LI Lin-jing (733)
Zircon U-Pb age and petrogenesis of the Lushigou high Ba-Sr quartz-monzonite in East Junggar, Xinjiang, and its geological significance .....	ZHAO Jian-xin, TONG Ying, MENG Gui-xiang, WANG Tao, ZHANG Zhao-chong and ZHANG Jian-jun (743)
Geochemical characteristics and potash formation analysis of Paleocene-Eocene evaporites in Kuqa depression of Xinjiang: A case study of borehole KL4 .....	XU Yang, LIU Cheng-lin, JIAO Peng-cheng, CHEN Yong-zhi and CAO Yang-tong (755)

**No. 6**

The morphology and mineralogy of three typical manganese coatings .....	XU Xiao-ming, LI Yan, DING Hong-rui, LI Yan and LU An-huai (765)
---	--

- Process mineralogical research on the rough tin concentrate in Datun, Yunnan Province ..... ZHOU Yao-wen, WEN Shu-ming, WANG Yi-jie and ZHANG Qian (779)
- Ore mineralogy of the heap leaching field of the Dexing copper deposit and geochemistry of Cu and associated elements ..... GAO Zhi-rui, ZHAO Yuan-yi, CAO Chong and CHANG Yu-hu (785)
- Structures of TiO<sub>2</sub>-loaded chrysotile/leached silica composites and the experimental study of their photocatalytic decomposition properties of Rhodamine B ..... CAO Xi, CHUAN Xiu-yun, LI Ai-jun and HUANG Du-bin (800)
- Mineralogical characteristics and photocatalytic properties of natural sphalerite ..... SHEN Can, LU An-huai and GU Xiang-ping (807)
- Photoelectrochemical performance of nanosphere and nanorod hematite ..... SUN Man-yi, REN Gui-ping, LU An-huai, LI Yan and DING Hong-rui (817)
- Photoelectrochemical performance of nano-hematite electrode and photoelectrocatalytic activity toward oxidation of phenol ..... REN Gui-ping, SUN Man-yi, LU An-huai, LI Yan and DING Hong-rui (825)
- An experimental study of the adsorption of lead ions by *Aspergillus niger* enhanced by photoelectric of anatase ..... DING Yang, HAO Rui-xia, REN Gui-ping, WANG Ming-can and LU An-huai (833)
- A study of the reduction mechanism for nitrate removal in water by biochar supported nanosized zero valent iron ..... LIU Xue-ni, WU Hong-hai, ZHANG Yuan-fang and GUAN Yu-feng (842)
- Solar cell synergistic enhanced photoelectrocatalytic efficiency for birnessite and performance of dye degradation ..... REN Gui-ping, SUN Yuan, SUN Man-yi, LU An-huai, LI Yan and DING Hong-rui (851)
- Response mechanism of electric current on adsorption and immobilization of lead by *Pencillium polonicum* ..... WANG Ming-can, HAO Rui-xia and DING Yang (858)
- A study of the adsorption property of sulphydryl organic silicane-grafted kaolinite for Cd(II) ..... LI Xiao, WU Hong-hai, SONG Zhen-hao and GUAN Yu-feng (865)
- A kinetic study of leaching of Ca<sup>2+</sup> and Mg<sup>2+</sup> by coral sand and its influence factors ..... WAN Tian-qi, ZHAO Zhi-wei, AO Lu, LIU Jie and PENG Wei (873)
- Experimental study of the repair of Fe<sup>2+</sup> activated persulfate in oil contaminated soils ..... ZHANG Yi-zhi, JIA Han-zhong and WANG Li-jin (881)
- Hydrothermal transformation mechanism of Mg-Al mixed oxides revealed by <sup>29</sup>Si and <sup>27</sup>Al MAS NMR ..... CHEN Man-you, TAO Qi, HE Hong-ping, JI Shi-chao, LI Shang-ying and ZHANG Chao-qun (887)
- Mechanism of G2/M phase arrest in A549 cells induced by PM<sub>2.5</sub> dust-fall ..... YANG Jie, HUO Ting-ting, WANG Yu-lin, DONG Fa-qin, ZENG Ya-li and DENG Jian-jun (894)
- A study of the mutagenicity of normal bacteria interacted with inhalable mineral granules ..... MA Ji, DONG Fa-qin, DENG Jian-jun and ZENG Ya-li (903)
- An infrared spectrum analysis of several kinds of typical pathologic calcification product in human body ..... ZHANG Yan, LI Yan, LU An-huai, WANG Chang-qiu, MEI Fang, LIU Jian-ying, YANG Chong-qing and LI Kang (909)
- The lung injury induced by chrysotile asbestos in rats based on the multiple non-exposed intratracheal instillation ..... BAI Jun, CUI Yan, ZHANG Qing-bi, HUO Ting-ting, ZHA Yu-xin and DENG Jian-jun (916)
- Characteristics and genesis of bitumen and natural copper in Puge dark mass basalt, southern Sichuan ..... ZHANG Liang-ju, LI Peng-fei, RUAN Qing-feng, LIANG Jie, YANG Yu-fu, LI Dong-sheng and ZENG Wei-lai (925)
- Trace element geochemical features of the coals in 0-1 borehole of the Shengli coal field in Inner Mongolia ... XU Xiao-qin (933)