

## 《岩石矿物学杂志》2016年总目次

### 第35卷 第1期

#### 专题研究

- 北羌塘北缘玉树三叠纪火山岩的成因机制及其构造意义 ..... 刘彬, 马昌前, 黄坚, 熊富浩, 张鑫, 郭宇衡 (1)  
湖南瑶岗仙花岗岩体中包体的地质地球化学特征与岩浆演化 ..... 祝新友, 王艳丽, 程细音, 田野 (16)  
西秦岭闾井花岗岩体锆石 U-Pb 年龄、岩石地球化学及其意义 .....  
..... 王顺安, 王晓霞, 柯昌辉, 杨阳, 聂政融, 吕星球, 李金宝 (33)  
俄罗斯白海活动带 Uzkaya Salma 地区含绿纤石榴辉岩的岩石学特征及其变质演化 ..... 齐云飞, 张立飞, 余黄露 (52)  
新疆阿舍勒铜锌矿区潜玄武安山岩的岩石地球化学特征及其地质意义 ..... 吴玉峰, 杨富全, 刘锋 (65)  
东昆仑石头坑德镁铁-超镁铁质岩体矿物学特征及成矿潜力分析 .....  
..... 周伟, 汪帮耀, 夏明哲, 夏昭德, 姜常义, 董俊, 谢恩顺 (81)  
黑龙江省嫩江县三矿沟铁铜矿床矿石特征及意义 .....  
..... 李远, 曾辉, 乔子鉴, 王泽东, 赵元艺, 符家骏, 陈龙, 杨波 (97)  
云南会泽铅锌矿床闪锌矿化学成分特征及其指示意义 ..... 张茂富, 周宗桂, 熊索菲, 宫勇军, 陈国林, 李行 (111)  
滇西茅草坪脉状铜矿床电气石的发育特征、成分及其意义 ..... 黄世强, 宋玉财, 程杨, 薛传东, 韩朝辉, 庄亮亮 (124)  
**宝玉石矿物学**  
黄色和红色石英质玉石的颜色成因研究 ..... 张勇, 魏然, 柯捷, 陈华, 陆太进 (139)  
**综述与进展**  
矽卡岩中石榴子石在示踪热液流体演化和矿化分带中的研究现状及其展望 ..... 王伟, 王敏芳, 刘坤, 郭晓南 (147)  
花岗岩新思维问题讨论 (13)  
涉及埃达克岩实验的若干基本概念与问题辨析 ..... 汪洋 (162)  
**其他**  
勘误 ..... (80)  
致谢 ..... (96)

### 第35卷 第2期

#### 专题研究

- 皖南屯溪盆地火山岩的地球化学、年代学及其构造意义 ..... 汤帅, 徐先兵, 袁晏明 (177)  
新疆阿尔泰小土尔根铜矿区岩体地球化学及其地质意义 ..... 秦纪华, 耿新霞, 温超权, 郭建新, 任宇晨 (195)  
米仓山新民角闪辉长岩地球化学特征及其构造意义 ..... 甘保平, 赖绍聪, 秦江锋 (213)  
内蒙古苏尼特左旗东苏 A型花岗岩的锆石 U-Pb 年龄、地球化学特征及地质意义 .....  
..... 俞安, 胡鹏, 曾威, 李志丹, 刘晓雪, 张超, 郭虎 (229)  
藏南冲巴淡色花岗岩锆石 U-Pb、白云母<sup>40</sup>Ar-<sup>39</sup>Ar 年代学及其地质意义 ..... 王晓先, 张进江, 闫淑玉, 刘江 (242)  
新疆博格达山北麓白杨河剖面页岩地球化学特征及其地质意义 ..... 赵仕华 (255)  
新疆西南天山含柯石英泥质片岩的岩石学特征及变质作用 *p-T* 轨迹 ..... 田作林, 魏春景, 张泽明 (265)  
高压下天然菱铁矿的压缩性和电子结构研究 ..... 高静, 巫翔, 秦善, 张硕, 杨科, 李晓东 (276)

- 湘南粤北铅锌矿床闪锌矿的标型特征及指示意义 ..... 徐接标, 张术根, 左亚飞, 冯雨周, 卢敏晨 (283)  
 江西省桃山铀矿田大府上矿床绿泥石特征及其地质意义 ..... 李仁泽, 刘成东, 梁 良, 孔 明, 王 冰, 万建军 (297)  
 阿拉善地块中元古代诺尔公群的构造变形特征 ..... 王东升, 宫江华, 张建新, 于胜尧 (306)
- 宝玉石矿物学**
- 老挝田黄石的宝石学与矿物学特征 ..... 徐文静, 陈 涛, 姚春茂 (321)  
 玛瑙的结构、水含量和成因机制 ..... 陶 明, 徐海军 (333)  
 吉林通化集安蛇纹石质玉的矿物成分与成因分析 ..... 秦宏宇, 刘 瑞 (344)
- 环境矿物学**
- 同步辐射软X射线吸收谱与发射谱测定天然针铁矿能带结构 ..... 丁 聪, 李 艳, 李 岩, 鲁安怀 (349)  
 武汉黄棕壤铁锰氧化物胶膜的矿物学特征研究 ..... 李 岩, 李 艳, 鲁安怀, 王浩然, 丁 聪, 杨晓雪 (355)  
 $N_2$  气氛下煅烧的黄铁矿对 As(Ⅲ) 的吸附作用 ..... 史亚丹, 陈天虎, 李 平, 杨 燕, 彭书传 (363)

### 第35卷 第3期

#### 专题研究

- 东昆仑早古生代造山后花岗岩的特征——以大干沟花岗岩为例 ..... 田广阔, 孟繁聪, 范亚洲, 刘 强, 段雪鹏 (371)  
 西藏错那洞淡色花岗岩地球化学特征、成岩时代及岩石成因 .....  
     林 彬, 唐菊兴, 郑文宝, 冷秋锋, 林 鑫, 王艺云, 孟 展, 唐 攀, 丁 帅, 徐云峰, 袁 梅 (391)  
 西准噶尔托里县布尔克斯台岩体岩浆混合作用的地球化学特征及其成矿意义 .....  
     徐 倩, 晁文迪, 李永军, 王 冉, 康 磊, 段丰浩 (407)  
 陈蔡岩群下河图斜长角闪岩年代学、地球化学特征及其构造意义 .....  
     王存智, 姜 杨, 赵希林, 邢光福, 高天山, 薛国栋, 杨 东 (425)  
 湖南湘潭锰矿的地球化学特征及成矿机制 ..... 史富强, 朱祥坤, 闫 斌, 刘燕群, 张飞飞, 赵妮娜, 褚明恺 (443)  
 江西大湖塘北段石门寺钨铜钼矿化关系研究 ..... 叶泽宇, 张智宇, 潘小菲, 彭花明 (457)  
 东昆仑南地体苦海岩群副片麻岩锆石年代学研究 ..... 刘 强, 孟繁聪, 李胜荣, 冯惠彬, 贾丽辉, 田广阔 (469)  
 碳酸盐化泥质岩在 6.0 GPa 下的部分熔融行为研究 ..... 王美丽 (484)  
 泥堡金矿床载金含砷黄铁矿的微量元素 LA-ICP-MS 原位测定及其对矿床成因的指示意义 .....  
     张锦让, 侯 林, 邹志超, 朱斯豹, 吴松洋 (493)  
 北大巴山滔河镁铁质岩中钛闪石的厘定及指示意义 ..... 王坤明, 王宗起, 张英利, 王 刚 (506)  
 新疆北山小常山铁矿矿物电子探针分析及矿床成因探讨 ..... 张 博, 吕新彪, 刘月高 (517)  
 铜陵新桥矿田褐铁矿矿物组成及成因 ..... 刘诗贝, 徐 亮, 陈 平, 谢巧勤, 陈天虎, 刘海波 (531)  
 贵州织金下寒武统黑色页岩矿物岩石成分及资源利用特征 ..... 王 沙, 张 杰 (543)
- 环境矿物学**
- 酸性矿山废水中石灰岩包壳作用研究 ..... 雷良奇, 林哲琼, 莫斌吉, 陈斯耐, 莫 家, 史振环 (553)

### 第35卷 第4期

#### 专题研究

- 西昆仑早中志留世埃达克岩的发现及地质意义 ..... 杨 绍, 吕宏伟, 屈小相, 咯 岩, 曾忠诚, 高 成 (563)  
 内蒙古苏尼特左旗乌兰敖包基性-超基性岩的成因及其对含矿性的指示 ..... 阿卜力米提·艾白, 程志国, 金子梁, 张招崇 (579)

- 内蒙古阿尔哈达地区花岗岩锆石 LA-ICP-MS U-Pb 年龄、稀土元素、Hf 同位素组成及其地质意义 ..... 柯亮亮, 瞿德高, 刘家军, 许永旺, 杨捷坤, 谭 强, 张 梅 (597)
- 赣南花岗岩风化壳型稀土矿床中纳米级稀土矿物的研究 ..... 刘 容, 王汝成, 陆现彩, 李 娟 (617)
- 河南嵩县松里沟金矿床中碲化物的发现及其地质意义 ..... 王 鹏, 叶会寿, 抄尉尉, 张兴康, 陈小丹, 石建喜, 窦志明, 党国良 (627)
- 准格尔煤田官板乌素 6 号煤层中煤矸石的矿物学特征研究 ..... 崔晓南, 黄文辉, 丁国平, 敖卫华, 周鸿璞, 梁 飞 (647)
- 鄂东南鸡笼山矽卡岩型金铜矿床金、银、碲、铋的赋存状态及其对成矿条件的制约 ..... 韩颖霄, 谢桂青 (655)
- 西藏嘎拉勒铜金矿床地质特征与控矿条件分析 ..... 毛敬涛, 杨竹森, 何 林, 张 雄, 周金胜, 徐玉涛, 龚雪婧, 裴英茹, 马 旺 (677)
- 兰坪盆地科登涧脉状铜矿床地质、地球化学特征 ..... 张锦让, 温汉捷, 邹志超 (692)
- 环境矿物学**
- 水锰矿与  $\text{Fe}^{2+}$  的相互作用与转化过程 ..... 罗 瑶, 李 珊, 刘立虎, 谭文峰, 刘 凡, 邱国红 (703)
- 齐齐哈尔碾子山麦饭石物化性能及其对  $\text{Pb}^{2+}$ 、 $\text{Cd}^{2+}$ 、 $\text{Cr}^{3+}$  的吸附行为研究 ..... 文 科, 刘国庆, 殷艳珍, 王铁博, 张 萍, 王辅亚, 朱建喜 (712)
- 石墨对污泥中厌氧微生物代谢产物及其性能的影响 ..... 朱梦扬, 李 青, 王 进, 陈天虎, 周跃飞, 彭书传 (721)
- 宝玉石矿物学**
- 日本马氏贝珍珠化学组成的同步辐射 X 射线荧光光谱分析 ..... 张晋丽, 黄圣轩, 唐 宾, 董俊才, 陈栋梁, 巫 翔 (729)

## 第35卷 第5期

### 专题研究

- 兰坪盆地西缘大宗铜矿区容矿火山岩 LA-ICP-MS 锆石 U-Pb 年代学及地质意义 ..... 徐墨寒, 薛传东, 杨天南, 吴 静, 廖 程, 唐 靓, 梁明媚, 信 迪 (735)
- 新疆东准噶尔早志留世埃达克岩——来自锆石 U-Pb 年龄、地球化学及 Sr-Nd-Hf 同位素的证据 ..... 黄 岗, 牛广智, 王新录, 郭 俊, 宇 峰 (751)
- 东天山石炭纪雅满苏组火山岩特征及地质意义 ..... 王 雯, 夏 芳, 柴凤梅, 吴生军, 李 强, 耿新霞, 孟庆鹏 (768)
- 桂东南新地-安平地区辉长岩的年代学、地球化学特征及其地质意义 ..... 赵国英, 覃小锋, 王宗起, 宫江华, 杨 文, 朱安汉, 石 浩, 詹俊彦 (791)
- 澜沧江杂岩带小黑江-上允地区蓝片岩的成因及变质演化 ..... 王 舶, 刘福来, 冀 磊, 刘平华, 蔡 佳, 田忠华, 刘利双 (804)
- 西藏列廷冈铁多金属矿床磁铁矿元素地球化学特征及地质意义 ..... 李 壮, 唐菊兴, 王立强, 杨 毅, 钟 毅 (821)
- 金红石和榍石 Zr 温度计在新疆西南天山榴辉岩中的应用 ..... 张丽娟, 张立飞 (840)
- 西藏多不杂铜矿床硫铅同位素地球化学示踪 ..... 何阳阳, 温春齐, 刘显凡 (855)
- 山东邹平王家庄铜矿铀及铂族元素矿物的发现及地质意义 ..... 杨德平, 刘鹏瑞, 迟乃杰, 吕振生, 舒 磊, 于雷亨 (863)
- 单晶菱锰矿的压缩性研究及方解石型碳酸盐的高压行为 ..... 高 静, 王 英, 巫 翔, 秦 善, 李晓东 (877)
- 环境矿物学**
- 原地栖息真菌 *Talaromyces flavus* 作用下不同粒径利蛇纹石的风化作用研究 ..... 孙 晨, 王艺谭, 刘连文 (885)
- 生物纳米 FeS 强化灰岩去除酸矿废水中砷的研究 ..... 王艳香, 赵峰华, 孙红福, 周 磊 (893)

## 其他

- 勘误 ..... (900)

## 第35卷 第6期

## 专题研究

- 阿拉善雅布赖山二叠纪中酸性岩浆岩年代学、地球化学、锆石 Hf 同位素特征及构造意义 ..... 叶 河, 张 磊, 王 涛, 史兴俊, 张建军, 刘 超 (901)  
 新疆东天山哈尔里克二叠纪奥莫尔塔格碱性花岗岩特征、成因及构造意义 ..... 陈希节, 张奎华, 张关龙, 周 健 (929)  
 江南造山带西段新元古代超基性岩体年代学和岩石地球化学研究及其对源区的约束 ..... 寇彩化, 刘燕学, 李廷栋, 何万双, 张 恒, 丁孝忠, 陆济璞 (947)  
 东昆仑中段万宝沟群玄武岩的形成时代和构造意义 ..... 许 鑫, 宋述光, 苏 犀 (965)  
 济阳坳陷古近系泥页岩成因相划分 ..... 郝运轻, 王 朴, 刘惠民, 谢忠怀, 毕彩芹, 滕建彬, 方正伟 (981)  
 云南姚安铅银矿床假白榴石斑岩空间分布和组构特征 ..... 孙春迪, 吴 鹏, 王 蝶, 管申进, 江小均, 姜龙燕, 王建飞 (991)  
 点苍山-哀牢山杂岩带中北段嘎洒地区变沉积岩的成因矿物学与变质演化特征 ..... 冀 磊, 刘福来, 王 舶, 蔡 佳, 王 伟, 田忠华, 刘利双 (1003)  
 西秦岭西成矿集区厂坝岩体的钼矿化特征及其 Re-Os 年龄 ..... 陈绍聪, 王义天, 胡乔青, 魏 然, 刘升有, 袁群虎, 欧阳升 (1025)  
 新疆卡特巴阿苏金矿床矿体特征及金赋存状态研究 ..... 韩继全, 杨维忠, 林泽华, 王 彬, 蒋南飞, 李 通 (1037)  
 西藏轮郎铅锌矿床 S-Pb 同位素组成及对成矿物质来源的示踪 ..... 唐 攀, 唐菊兴, 冷秋锋, 郑文宝, 林 彬, 唐晓倩 (1045)  
 新疆伊宁县塔吾尔别克金矿床流体包裹体特征研究及矿床成因 ..... 于小亮, 蔡成龙, 顾雪祥, 马延景, 魏小林, 张得鑫, 杨延乾, 李嘉泰 (1055)

## 环境矿物学

- 偏高岭土基地质聚合物原位水热合成 P 型沸石分子筛的研究 ..... 王源慧, 陈洁渝, 雷新荣, 吴红丹 (1068)  
 Fe(Ⅱ)/阳离子掺杂针铁矿矿物系统对 2-NP 的还原转化性能研究 ..... 杜可清, 吴宏海, 朱慧琳, 魏西鹏, 管玉峰, 蓝冰燕 (1075)  
 坡缕石黏土负载铁锰复合氧化物吸附磷的性能 ..... 郝艳玲, 张 羽, 屈奥运 (1085)  
 其他  
 2015 年度部分地质学类期刊主要计量指标一览表 ..... (1084)  
 《岩石矿物学杂志》2016 年总目次 ..... (1091)

# Acta Petrologica et Mineralogica

2016 (Vol. 35)

## Contents

### No. 1

- Petrogenetic mechanism and tectonic significance of Triassic Yushu volcanic rocks in the northern part of the North Qiangtang Terrane ..... LIU Bin, MA Chang-qian, HUANG Jian, XIONG Fu-hao, ZHANG Xin and GUO Yu-heng (1)  
Geological and geochemical characteristics of xenoliths in Yaogangxian granite, Hunan Province ..... ZHU Xin-you, WANG Yan-li, CHENG Xi-yin and TIAN Ye (16)  
Zircon U-Pb age and geochemistry of Lüjing granitoid pluton in Western Qinling and their significance ..... WANG Shun-an, WANG Xiao-xia, KE Chang-hui, YANG Yang, NIE Zheng-rong, LÜ Xing-qiu and LI Jin-bao (33)  
Petrographic features and metamorphic evolution of pumpellyite-bearing eclogite in Uzkaya Salma area of the Belomorian mobile belt, Russia ..... QI Yun-fei, ZHANG Li-fei and YU Huang-lu (52)  
Geochemical characteristics of basaltic andesite subvolcanic rocks in the Ashele Cu-Zn deposit and their geological significance ..... WU Yu-feng, YANG Fu-quan and LIU Feng (65)  
Mineralogical characteristics of Shitoukengde mafic-ultramafic intrusion and analysis of its metallogenetic potential, East Kunlun ..... ZHOU Wei, WANG Bang-yao, XIA Ming-zhe, XIA Zhao-de, JIANG Chang-yi, DONG Jun and XIE En-shun (81)  
Ore characteristics of the Sankuanggou iron-copper ore deposit in Nerijiang County, Heilongjiang Province, and their significance ..... LI Yun, ZENG Hui, QIAO Zi-jian, WANG Ze-dong, ZHAO Yuan-yi, FU Jia-jun, CHEN Long and YANG Bo (97)  
A typomorphic study of sphalerite from the Huize lead-zinc deposit, Yunnan Province ..... ZHANG Mao-fu, ZHOU Zong-gui, XIONG Suo-fei, GONG Yong-jun, CHEN Guo-lin and LI Hang (111)  
Tourmaline in the Maocaoping vein Cu deposit, western Yunnan: Characteristics, chemical composition, and its significance ..... HUANG Shi-qi, SONG Yu-cai, CHENG Yang, XUE Chuan-dong, HAN Chao-hui and ZHUANG Liang-liang (124)  
Coloration of yellow and red colored quartzite jade ..... ZHANG Yong, WEI Ran, KE Jie, CHEN Hua and LU Tai-jin (139)  
The current status and prospects of the study of garnet in skarn for hydrothermal fluid evolution tracing and mineralization zoning ..... WANG Wei, WANG Min-fang, LIU Kun and GUO Xiao-nan (147)  
A discussion on some basic conceptions and problems related to the experimental study of adakite ..... WANG Yang (162)

### No. 2

- Geochemistry and geochronology of the volcanic rocks from Tunxi basin in southern Anhui and their tectonic significance ..... TANG Shuai, XU Xian-bing and YUAN Yan-ming (177)  
Geochemistry and geological implications of the plutons from the Xiaotuergen copper ore district in Altay, Xinjiang ..... QIN Ji-hua, GENG Xin-xia, WEN Chao-quan, GUO Jian-xin and REN Yu-chen (195)  
Geochemistry of the bojite from the Xinmin area, Micang Mountain ..... GAN Bao-ping, LAI Shao-cong and QIN Jiang-feng (213)  
Geochronology, geochemistry and geological significance of Dongsu A-type granites in Sonid Left Banner, Inner Mongolia ..... YU Reng-an, HU Peng, ZENG Wei, LI Zhi-dan, LIU Xiao-xue, ZHANG Chao and GUO Hu (229)  
Zircon U-Pb and muscovite  $^{40}\text{Ar}$ - $^{39}\text{Ar}$  chronology of the Chongba leucogranites in south Tibet and its geological implications ..... WANG Xiao-xian, ZHANG Jin-jiang, YAN Shu-yu and LIU Jiang (242)  
Geochemical characteristics of the Baiyanghe shale in the northern Bogda Mountain of Xinjiang and its geological significance ..... ZHAO Shi-hua (255)  
Petrology and metamorphic  $p$ - $T$  path of coesite-bearing pelitic schist from southwestern Tianshan Mountains, Xinjiang ..... TIAN Zuo-lin, WEI Chun-jing and ZHANG Ze-ming (265)

Compressibility and electronic structure of natural siderite under high pressure .....	GAO Jing, WU Xiang, QIN Shan, ZHANG Shuo, YANG Ke and LI Xiao-dong (276)
Typomorphic characteristics and indicative significance of sphalerite in Pb-Zn deposits in southern Hunan-northern Guangdong area .....	XU Jie-biao, ZHANG Shu-gen, ZUO Ya-fei, FENG Yu-zhou and LU Min-chen (283)
Characteristics and geological significance of chlorite from the Dafushang uranium deposit in Taoshan area, Jiangxi Province .....	LI Ren-ze, LIU Cheng-dong, LIANG Liang, KONG Ming, WANG Bing and Wan Jian-jun (297)
Tectonic deformation characteristics of the Mesoproterozoic Nuoergong Group in the Alxa block .....	WANG Dong-sheng, GONG Jiang-hua, ZHANG Jian-xin and YU Sheng-yao (306)
Gemological and mineralogical characteristics of Laos Tianhuang Stone ...	XU Wen-jing, CHEN Tao and YAO Chun-mao (321)
Texture, water content and formation mechanism of agate .....	TAO Ming and XU Hai-jun (333)
Mineral composition and genetic analysis of Ji'an serpentine jade, Tonghua, Jilin Province ...	QIN Hong-yu and LIU Rui (344)
Electronic structure of natural goethite probed by soft X-ray emission and absorption spectroscopy .....	DING Cong, LI Yan, LI Yan and LU An-huai (349)
Mineralogical characteristics of iron-manganese cutans in yellow brown earth of Wuhan .....	LI Yan, LI Yan, LU An-huai, WANG Hao-ran, DING Cong and YANG Xiao-xue (355)
Arsenic(Ⅲ) removal from solution by heat-treated pyrite under N <sub>2</sub> atmosphere .....	SHI Ya-dan, CHEN Tian-hu, LI Ping, YANG Yan and PENG Shu-chuan (363)

### No. 3

The characteristics of Early Paleozoic post-orogenic granite in the East Kunlun orogen: A case study of Dagangou granite .....	TIAN Guang-kuo, MENG Fan-cong, FAN Ya-zhou, LIU Qiang and DUAN Xue-peng (371)
Geochemical characteristics, age and genesis of Cuonadong leucogranite, Tibet ...	LIN Bin, TANG Ju-xing, ZHENG Wen-bao, LENG Qiu-feng, LIN Xin, WANG Yi-yun, MENG Zhan, TANG Pan, DING Shuai, XU Yun-feng and YUAN Mei (391)
Geochemical characteristics and ore-forming significance of magma mixing action of Buerkesitai granite in Tuoli County, Western Junggar .....	XU Qian, CHAO Wen-di, LI Yong-jun, WANG Ran, KANG Lei and DUAN Feng-hao (407)
Geochronological and geochemical characteristics of the Xiahetu amphibolites from Chencai Group and their tectonic implications ...	WANG Cun-zhi, JIANG Yang, ZHAO Xi-lin, XING Guang-fu, GAO Tian-shan, JIN Guo-dong and YANG Dong (425)
Geochemical characteristics and metallogenetic mechanism of the Xiangtan manganese ore deposit in Hunan Province .....	SHI Fu-qiang, ZHU Xiang-kun, YAN Bin, LIU Yan-qun, ZHANG Fei-fei, ZHAO Ni-na and CHU Ming-kai (443)
A study of the relationship of W-Cu-Mo mineralization features of the Shimensi ore district in northern Dahutang, Jiangxi Province .....	YE Ze-yu, ZHANG Zhi-yu, PAN Xiao-fei and PENG Hua-ming (457)
Geochronology of zircon from the paragneiss of Kuhai Group in southern East Kunlun terrane .....	LIU Qiang, MENG Fan-cong, LI Sheng-rong, FENG Hui-bin, JIA Li-hui and TIAN Guang-kuo (469)
A study of the behavior of partial melting of carbonated pelites at 6.0 GPa .....	WANG Mei-li (484)
LA-ICP-MS in situ trace element analysis of auriferous arsenic pyrites from the Nibao gold deposit and its constraints on the ore genesis .....	ZHANG Jin-rang, HOU Lin, ZOU Zhi-chao, ZHU Si-bao and WU Song-yang (493)
Determination of kaersutite and its implication for mafic rock in Taohe area, North Daba Mountain .....	WANG Kun-ming, WANG Zong-qi, ZHANG Ying-li and WANG Gang (506)
Electron microprobe analysis of minerals and genesis of the Xiaochangshan iron deposit in Beishan area, Xinjiang .....	ZHANG Bo, LÜ Xin-biao and LIU Yue-gao (517)
Mineralogy of the limonite ore from the Xinqiao sulfide iron deposit in the Tongling ore concentration area of Anhui Province and its implications .....	LIU Shi-bei, XU Liang, CHEN Ping, XIE Qiao-qin, CHEN Tian-hu and LIU Hai-bo (531)
Mineral and rock composition and resource properties of Lower Cambrian black shale in Zhijin, Guizhou Province .....	WANG Sha and ZHANG Jie (543)
Armoring effect of limestone in acid mine drainage: Static immersion experiments .....	LEI Liang-qi, LIN Zhe-qiong, MO Bin-ji, CHEN Si-nai, MO Jia and SHI Zhen-huan (553)

## No. 4

- The discovery of Early-Middle Silurian adakite in West Kunlun Mountains and its geological implications ..... YANG Shao, LÜ Hong-wei, QU Xiao-xiang, LIN Yan, ZENG Zhong-cheng and GAO Cheng (563)
- Genesis of mafic-ultramafic rocks in Ulan Obo of Sonid Left Banner, Inner Mongolia: Indication for metallogenetic potentiality ..... Abilim EBEY, CHENG Zhi-guo, JIN Zi-liang and ZHANG Zhao-chong (579)
- Zircon LA-ICP-MS U-Pb ages and REE and Hf isotope compositions of the granite in the Arehada area, Inner Mongolia, and their geological significance ..... KE Liang-liang, ZHAI De-gao, LIU Jia-jun, XU Yong-wang, YANG Jie-kun, TAN Qiang and ZHANG Mei (597)
- Nano-sized rare earth minerals from granite-related weathering-type REE deposits in southern Jiangxi ..... LIU Rong, WANG Ru-cheng, LU Xian-cai and LI Juan (617)
- The discovery of tellurides in the Songligou gold deposit in Songxian County, Henan Province, and its geological significance ..... WANG Peng, YE Hui-shou, CHAO Wei-wei, ZHANG Xing-kang, CHEN Xiao-dan, SHI Jian-xi, DOU Zhi-ming and DANG Guo-liang (627)
- Mineralogical features of the coal gangue in the Guanbanwusu mine, Jungar coalfield ..... CUI Xiao-nan, HUANG Wen-hui, DING Guo-ping, AO Wei-hua, ZHOU Hong-pu and LIANG Fei (647)
- Modes of occurrence of Au, Ag, Te and Bi elements and their constraint on the ore-forming physicochemical conditions of the Jilongshan skarn Au-Cu deposit, southeast Hubei Province ..... HAN Ying-xiao and XIE Gui-qing (655)
- Geological features and ore-controlling factors of the Galale Cu-Au deposit in Tibet ..... MAO Jing-tao, YANG Zhu-sen, HE Lin, ZHANG Xiong, ZHOU Jin-sheng, XU Yu-tao, GONG Xue-jing, PEI Ying-ru and MA Wang (677)
- Geology and geochemistry of the Kedengjian vein-type copper deposit in western Lanping basin ..... ZHANG Jin-rang, WEN Han-jie and ZOU Zhi-chao (692)
- Interaction and transformation processes of manganite and  $\text{Fe}^{2+}$  ..... LUO Yao, LI Shan, LIU Li-hu, TAN Wen-feng, LIU Fan and QIU Guo-hong (703)
- Physicochemical properties and adsorption performances of Nianzishan Maifan Stone in Qiqihar for heavy metal ions ..... WEN Ke, LIU Guo-qing, YIN Yan-zhen, WANG Yue-bo, ZHANG Ping, WANG Fu-ya and ZHU Jian-xi (712)
- The effect of graphite on the microbial metabolite substances production and characteristics of anaerobic sludge microorganism ..... ZHU Meng-yang, LI Qing, WANG Jin, CHEN Tian-hu, ZHOU Yue-fei and PENG Shu-chuan (721)
- Chemical composition analysis of *Pinctada martensii* pearls from Japan by synchrotron radiation micro X-ray fluorescence ..... ZHANG Jin-li, HUANG Sheng-xuan, TANG Bin, DONG Jun-cai, CHEN Dong-liang and WU Xiang (729)

## No. 5

- LA-ICP-MS zircon U-Pb geochronology of the ore-bearing volcanic rocks in the Dazong copper orefield on the western margin of Lanping basin, western Yunnan, and its geological implications ..... XU Mo-han, XUE Chuan-dong, YANG Tian-nan, WU Jing, LIAO Cheng, TANG Jing, LIANG Ming-juan and XIN Di (735)
- Early Silurian adakitic rocks of East Junggar, Xinjiang: Evidence from zircon U-Pb age, geochemistry and Sr-Nd-Hf isotope of the quartz diorite ..... HUANG Gang, NIU Guang-zhi, WANG Xin-lu, GUO Jun and YU Feng (751)
- Geochronology and geochemistry of volcanic rocks from the Yamansu Formation in eastern Tianshan Mountains and their tectonic implications ..... WANG Wen, XIA Fang, CHAI Feng-me, WU Sheng-jun, LI Qiang, GENG Xin-xia and MENG Qing-peng (768)
- Geochronology, geochemistry and geological significance of gabbros from Xindi-Anping area, southeastern Guangxi ..... ZHAO Guo-ying, QIN Xiao-feng, WANG Zong-qi, GONG Jiang-hua, YANG Wen, ZHU An-han, SHI Hao and ZHAN Jun-yan (791)
- Petrogenesis and metamorphic evolution of blueschist from Xiaoheijiang-Shangyun area in Lancangjiang metamorphic complex ..... WANG Fang, LIU Fu-lai, JI Lei, LIU Ping-hua, CAI Jia, TIAN Zhong-hua and LIU Li-shuang (804)
- Geochemistry of magnetites from the Lietinggang iron polymetallic deposit in Tibet and its geological significance ..... LI Zhuang, TANG Ju-xing, WANG Li-qiang, YANG Yi and ZHONG Yi (821)

- The application of Zr-in-rutile and Zr-in-titanite geothermometers to eclogites from southwestern Tianshan Mountains, Xinjiang .....  
..... *ZHANG Li-juan and ZHANG Li-fei* (840)
- Sulfur and lead isotope geochemical tracing of the Duobuza copper deposit, Tibet .....  
..... *HE Yang-yang, WEN Chun-qi and LIU Xian-fan* (855)
- The discovery of uranium and platinum group minerals in the Wangjiazhuang copper deposit, Zouping, Shandong Province, and its geological significance .....  
..... *YANG De-ping, LIU Peng-rui, CHI Nai-jie, LÜ Zhen-sheng, SHU Lei and YU Lei-heng* (863)
- Compressibility of single-crystal rhodochrosite and high-pressure behavior of calcite-type carbonates .....  
..... *GAO Jing, WANG Ying, WU Xiang, QIN Shan and LI Xiao-dong* (877)
- The weathering of serpentine of different particle sizes under the action of native fungi *Talaromyces flavus* .....  
..... *SUN Sheng, WANG Yi-tan and LIU Lian-wen* (885)
- Research on bio-nano FeS strengthening the capability of limestone for removing arsenic in acid mine drainage .....  
..... *WANG Yan-xiang, ZHAO Feng-hua, SUN Hong-fu and ZHOU Lei* (893)

## No. 6

- Geochronology, geochemistry and zircon Hf isotope of the Permian intermediate-acid igneous rocks from the Yabulai Mountain in western Alxa, Inner Mongolia, and their tectonic implications .....  
..... *YE Ke, ZHANG Lei, WANG Tao, SHI Xing-jun, ZHANG Jian-jun and LIU Chao* (901)
- Characteristics, petrogenesis and tectonic implications of the Permian Omoertage alkaline granites in Harlik area, Xinjiang .....  
..... *CHEN Xi-jie, ZHANG Kui-hua, ZHANG Guan-long and ZHOU Jian* (929)
- Geochronology and geochemistry of Neoproterozoic ultrabasic rocks in the western segment of Jiangnan orogenic belt and constraints on their sources .....  
..... *KOU Cai-hua, LIU Yan-xue, LI Ting-dong, HE Wan-shuang, ZHANG Heng, DING Xiao-zhong and LU Ji-pu* (947)
- Formation age and tectonic significance of the Wanbaogou basalts in the middle East Kunlun orogenic belt .....  
..... *XU Xin, SONG Shu-guang and SU Li* (965)
- Genetic facies classification of Paleogene mudstone in Jiyang depression .....  
..... *HAO Yun-qing, WANG Pu, LIU Hui-min, XIE Zhong-huai, BI Cai-qin, TENG Jian-bin and FANG Zheng-wei* (981)
- Spatial distribution and fabric features of pseudoleucite porphyry from the Yao'an Pb-Ag deposit in Yunnan Province .....  
..... *SUN Chun-di, WU Peng, WANG Die, GUAN Shen-jin, JIANG Xiao-jun, JIANG Long-yan and WANG Jian-fei* (991)
- Genetic mineralogy and metamorphic evolution of metasedimentary rocks in Gasa area, middle-north segment of Ailao Mountain metamorphic complex belt .....  
..... *JI Lei, LIU Fu-lai, WANG Fang, CAI Jia, WANG Wei, TIAN Zhong-hua and LIU Li-shuang* (1003)
- Molybdenum mineralization characteristics and Re-Os age of the Changba pluton in the Xicheng ore concentration area, West Qinling Mountains .....  
..... *CHEN Shao-cong, WANG Yi-tian, HU Qiao-qing, WEI Ran, LIU Sheng-you, YUAN Qun-hu and OUYANG Sheng* (1025)
- Orebody characteristics and modes of occurrence of gold in the Katebaasu gold deposit of XinJiang .....  
..... *HAN Ji-quan, YANG Wei-zhong, LIN Ze-hua, WANG Bin, JIANG Nan-fei and LI Tong* (1037)
- S, Pb isotope composition and source tracing of ore-forming materials in the Lunlang lead-zinc deposit, Tibet .....  
..... *TANG Pan, TANG Ju-xing, LENG Qiu-feng, ZHENG Wen-bao, LIN Bin and TANG Xiao-qian* (1045)
- A study of fluid inclusion characteristics and genetic type of the Tawuerbieke gold deposit in Yining County, Xinjiang .....  
..... *YU Xiao-liang, CAI Cheng-long, GU Xue-xiang, MA Yan-jing, WEI Xiao-lin, ZHANG De-xin, YANG Yan-qian and LI Jia-tai* (1055)
- Researches on preparation of Zeolite P from metakaolin-based geopolymers via in-situ hydrothermal method .....  
..... *WANG Yuan-hui, CHEN Jie-yu, LEI Xin-rong and WU Hong-dan* (1068)
- A study of the reductive transformation properties of the mineral systems of Fe(II)/cation-doped goethite for 2-NP .....  
..... *DU Ke-qing, WU Hong-hai, ZHU Hui-lin, WEI Xi-peng, GUAN Yu-feng and LAN Bing-yan* (1075)
- Adsorption performance of Fe-Mn binary oxide loaded on palygorskite clay for phosphate .....  
..... *HAO Yan-ling, ZHANG Yu and QU Ao-yun* (1085)