

## 《岩石矿物学杂志》2024年总目次

### 第43卷第1期

#### 专题研究

- 秘鲁北部奇克拉约地区始新世-渐新世侵入岩时代、成因和构造环境 ..... 姚春彦, 郭维民, 刘君安, 李汉武, 王天刚 (1)
- 桂西二叠系沉积型铝土矿鲕粒成因机制探讨 .....  
..... 张启连, 韦 访, 邓 军, 李活松, 陈文伦, 官 研, 覃洪锋, 辛晓卫, 黄尚恒, 王学恒, 苏 可 (21)
- 黑云母温度计能否用于估计花岗质侵入岩的结晶温度? ..... 徐鸿雪, 汪 洋 (37)
- 陕南镇巴地区中-晚三叠世界线富锂黏土岩的发现及找矿意义 ..... 周 伟, 祁晓鹏, 张嘉升, 徐 磊, 杨 杰, 高景民 (47)

#### 战略性非金属矿产

- 致密砂岩气藏地层水水化学特征及其地质意义——以川西坳陷新场气田为例 .....  
..... 山俊杰, 黄仕林, 毕有益, 邓美洲, 严煥榕, 衡 勇, 郑 艳 (63)

#### 综述与进展

- 全球矿床数据库建设现状、应用与展望 ..... 史 蕊, 张洪瑞 (74)

#### 环境矿物学

- 焙烧温度对纤维水镁石矿物学特征的影响研究 ..... 刘芳芳, 牛继南 (89)
- 生物炭对磷石膏中磷的固化作用 ..... 敖 翔, 徐冠立, 李 玢, 柏 涵 (100)
- 凹凸棒石-双交联水凝胶微球钝化修复镉污染土壤研究 ..... 钟晓琴, 贺广喜, 马 雪, 朱霞萍, 任 维, 赵 平 (109)
- 生物合成 FeS 及其稳定性柱迁移研究 ..... 任 霞, 严宁珍, 刘 璟 (117)
- 钾霞石制备体系碱性滤液的利用技术 ..... 路华龙, 霍光祥, 段永华, 勾明雷, 刘军娜, 刘 晨 (125)

#### 综合资料

- 2011 年全球发现的新矿物种 ..... 蔡剑辉 (131)

#### 学术快讯

- 白云鄂博发现全新结构重稀土新矿物——白云钇钽矿 ..... 李国武 (36)

#### 其他

- 致谢 ..... (88)
- 《岩石矿物学杂志》再次入选地质学类中文核心期刊 ..... (99)
- 《岩石矿物学杂志》第六届编辑委员会成立大会暨第一次工作会议在北京召开 ..... (199)

### 第43卷第2期

#### 造山带的变质作用、岩浆作用及构造热演化 专辑

#### 前言

- 柴西缘花土沟超高温变质地体中的镁铝麻粒岩岩石成因及其与熔体行为的关系 .....  
..... 滕 霞, 张建新, 毛小红, 武亚威, 郭 祺 (201)
- 柴北缘欧龙布鲁克地块中元古代晚期麻粒岩相变质作用——来自石榴夕线堇青石片麻岩的岩石学、相平衡模拟和 U-Pb 年代学的制约 ..... 毛小红, 路增龙, 张建新, 郭 祺, 武亚威 (219)
- 北祁连清水沟红帘石变硅质岩矿物学、原岩特征及地质意义 .....  
..... 郭 晶, 张建新, 李云帅, 武亚威, 李国倩, 周 开, 郭 祺, 毛小红 (238)

- 原特提斯洋俯冲起始——来自北祁连早寒武世弧前岩浆作用的新证据 ..... 张同悦, 张建新, 于胜尧, 祁钰, 李传志 (250)
- 喂子坪秦岭杂岩麻粒岩相变沉积岩的变质作用  $p$ - $T$  演化及其构造意义 ..... 刘学锋, 苟龙龙, 田智博, 周峰, 马柳婷 (274)
- 西秦岭商丹缝合带寒武纪斜长花岗岩的成因机制——对原特提斯洋俯冲起始的启示 ..... 郭祺, 张建新, 毛小红, 武亚威 (304)
- 西秦岭天水地区志留纪利桥花岗岩的岩石成因——来自地球化学和锆石 U-Pb 年代学与 Hf 同位素的约束 ..... 李国倩, 周开, 李云帅, 张建新, 武亚威, 郭祺, 毛小红 (330)
- 玉树北部二叠纪镁铁质岩的成因及其对大陆弧后盆地形成的指示 ..... 刘彬, 蔡昊龙, 马昌前, 吴栾, 程琦, 李福林, 孙洋 (344)
- 中喜马拉雅日玛那地区退变榴辉岩岩石地球化学及年代学研究 ..... 刘学, 张贵宾, 张立飞, 刘帅奇 (360)
- 滇西南大红山群变火山-沉积岩地球化学属性、年代格架及其构造意义 ..... 姜杭云, 刘福来, 王舫, 王慧宁, 李同宇 (393)
- 钛粒硅镁石: 冷俯冲带蛇纹岩超高压变质的特征变质矿物 ..... 杨文宽, 申婷婷 (427)
- 显微激光拉曼光谱锆石定年方法及其应用 ..... 赵晓轩, 张聪, 刘晓瑜, 秦雪晴, 张建新, 毛小红 (450)
- Fe-Cu-Zn-Mo 同位素示踪氧化还原过程 ..... 黄思民, 张贵宾 (469)

## 第43卷第3期

## 宝玉学矿物学 专辑

## 前言

- 秘鲁粉色蛋白石的物相组成及颜色成因 ..... 钱雪雯, 李净净, 杨丽, 徐娅芬 (495)
- 热处理对黝帘石颜色的影响及其致色成因探讨——以坦桑尼亚黄色和蓝色黝帘石为例 ..... 杨淑淇, 刘迎新 (503)
- 缅甸抹谷紫方钠石光致变色效应脱色效率研究 ..... 汤峻, 陈洋铃, 郭颖, 贺晴, 覃侨红 (518)
- 祖母绿产地鉴别研究综述 ..... 郑育宇, 余晓艳, 许博, 郭鸿舒, 闫颖, 张艺, 汤峻, 赵思艺 (525)
- 浅析歙砚纹理的成因及发墨机制 ..... 唐甘宇, 赖勇 (562)
- 新疆阿尔泰库吉尔特伟晶岩海蓝宝石矿物化学研究 ..... 丁志丹, 邹好, 王蝶 (575)
- 新型紫外光致发光图像高速采集装置的研制及其在筛分天然钻石中的应用 ..... 梁榕, 兰延, 高孔, 张小虎, 陈慕雨, 王鸿浩, 陆太进 (592)
- 不同种类珍珠在各种外界环境下的抗腐蚀性研究 ..... 刘富康, 郭颖, 刘炜明, 赵贝, 刘欣, 宋圆梦 (599)
- 内蒙古黄岗梁不同色调鱼眼石的谱学特征及高压 X 射线衍射光谱研究 ..... 肖启润, 刘迎新 (611)
- 尼日利亚锌尖晶石的宝石矿物学及包裹体特征研究 ..... 陈仪方, 金雪萍, 刘子琪, 周征宇, 郑浚豪, 管琪韵, 陈琦 (619)
- 黑青和田玉宝石矿物学及地球化学特征研究 ..... 付玉蕾, 史森, 曹沁元, 马世玉 (630)
- 缅甸紫色翡翠的致色机理——光谱和色度学研究 ..... 商嫣然, 王伟钊, 金天力, 黄琳铭, 吴中允, 郭颖 (643)
- 黄-红色缅甸黄龙玉颜色和光谱特征的定量研究 ..... 牛佳睿, 郭颖 (652)
- 黄色系硅化造礁石珊瑚的结构特征及颜色成因研究 ..... 郭逸琳, 郭颖 (663)
- 福建云霄石榴子石宝石矿物学特征 ..... 陈星韵, 张良, 王豪帅, 张瑞锐, 孙思辰 (673)
- 巴西金刚石的宝石矿物学特征 ..... 李雨璇, 黄颖, 刘迎新 (685)
- 河南绿色密玉的宝石学特征和颜色成因 ..... 李汶娟, 余晓艳, 白峰 (697)
- 6 种不同产地柯巴树脂的谱学特征探究 ..... 李佳蓉, 李妍, 武嘉欣 (709)

## 非主题来稿

- 太行山麻棚地区高 Ba-Sr 花岗岩侵入岩的地球化学、锆石 U-Pb 年龄和 Hf 同位素特征及其地质意义 ..... 程海峰, 杜利林, 杨崇辉, 苏荣昆, 孟庆涛, 刘广, 王明明, 张正平, 井晶晶, 王晓东 (719)
- 赞皇杂岩翁城地区长城系常州沟组砂岩碎屑锆石 U-Pb-Hf 同位素研究 ..... 王乐乐, 刘平华, 周万蓬, 杜利林, 杨崇辉, 张文, 曹秋香, 陈丽梅 (737)

- 湖北金银山锑矿蚀变矿物红外光谱特征及找矿应用 ..... 邱佳炜, 刘新星, 薛 哲, 张 娟, 成嘉伟, 卢克轩, 王 猛, 杨俊峰, 王璘雪 (776)

### 第 43 卷 第 4 期

#### 专题研究

- 西藏那阿钨矿床中石榴子石地球化学特征及成矿意义 ..... 吴明锴, 张刚阳, 陈友良, 陈 曦, 何忠厚 (787)
- 西藏南木林地区达那古火山机构中花岗岩大地构造意义 ..... 韩 飞, 宋元宝, 李 峥, 黄永高, 代克刚, 张 伟, 李应栩, 贾小川, 杨学俊 (803)
- 崂山早白垩世高分异 I 型花岗岩地球化学特征及岩石成因机制 ..... 杜 娟, 于胜尧, 高翔宇, 蒋兴洲, 彭银彪, 纪文涛, 李传志 (821)
- 江西金滩岩体花岗岩的侵位深度——来自白云母矿物化学成分的约束 ..... 陶继华, 杨跃贵, 张吉源, 石 争, 许德如 (847)
- 滇西北河西地区上三叠统三合洞组灰岩地球化学特征及其地质意义 ..... 杨志娟, 朱志军, 丁 婷, 马原驰, 王 田, 周世豪 (856)
- 扬子地块埃迪卡拉纪浅层海洋氧化还原环境变化及其对生物演化的影响 ..... 闫 斌, 朱祥坤, 李 津, 马健雄 (871)
- 陇东太原组铝土岩分布特征及成藏主控因素 ..... 肖文同, 和丽安, 王 雷, 王文泽, 马 喆, 朱佳宝 (889)
- 江陵凹陷西南部始新世盐湖卤水演化和钾锂来源——来自石盐流体包裹体的证据 ..... 颜 开, 王春连, 陈仁义, 刘 雪, 刘延亭, 尹传凯, 孙珮婕, 赵雨欣, 廖世龙 (905)
- 勐野井钾盐矿床中自生黏土矿物特征及其意义 ..... 沈立建, 彭 强 (918)
- 矿物解理/断裂规律与晶面间距的弱相关性及其证明 ..... 王纪镇, 张佳祺, 闫荣禄, 陈友良, 李甲伟 (931)
- 九岭地区东槽细晶岩型铌钽矿床年代学、岩石地球化学特征及其地质意义 ..... 党飞鹏, 吕 川, 张 勇, 肖志斌, 张 涛, 陈 欣, 李志鹏, 汤君阳, 罗建群 (938)
- 江西北武夷地区老虎洞铅锌矿床成因研究——硫化物原位微量元素及硫同位素证据 ..... 范诗妮, 朱 云, 李桂贤, 石得凤, 贾梦洁 (956)
- 江西德安彭山矿田遥感找矿预测研究 ..... 谭 荣, 徐裕敏, 徐先宇, 王天晨, 余振东 (973)
- 环境矿物学**
- 硫酸盐还原菌与铁还原菌联合释放含砷水铁矿中砷及渗透性研究 ..... 张世英, 刘 莹, 刘 琴, 骆大勇, 刘 璟 (982)
- SO<sub>2</sub> 和 NO<sub>2</sub> 在白云母表面的非均相反应研究 ..... 张星宇, 董发勤, 郑 飞, 霍婷婷, 周 琳, 余洁雨, 赵方源, 郭 铭, 李文金 (994)
- 水钠锰矿介导下晴隆锑矿区黄壤中锑形态的转化 ..... 刘玉蛟, 朱霞萍, 崔 婷, 任 维, 赵 平 (1005)
- 综述与进展**
- 密西西比河谷型 (MVT) 铅锌矿床与蒸发岩的成因关系 ..... 田力丹, 宋玉财, 庄亮亮, 黄 钢 (1012)
- 铁同位素分馏机理以及在镁铁-超镁铁质岩浆作用和成矿作用中的应用 ..... 邱 坦, 汤庆艳, 杨皓辰, 黎卓明, 张 燕, 刘 玮, 赵 驰, 王晓伟 (1034)
- 方法与应用**
- LA-ICP-MS 多脉冲短时间剥蚀法锆石超薄增生边定年研究 ..... 陈静雅, 汪方跃, 王 建, 周涛发, 李全忠 (1052)
- Cr-Ca 化学分离方法研究 ..... 汪子辰, 孙 剑, 李世珍, 马健雄, 李小伟 (1066)

### 第 43 卷 第 5 期

#### 磷矿成矿作用及找矿方向

- 亚洲最大规模隐伏单体富磷矿床羊场磷矿深部找矿突破及其意义 ..... 杨淑胜, 王 路, 王云晓, 米云川, 董 涛, 黄太平, 王 枫, 余中明, 段文婷 (1073)
- 云南镇雄羊场磷矿早寒武世无机碳、有机碳同位素研究 ..... 刘文杰, 周艳玲, 米云川, 牛奕宁, 吴佳怡, 周余国, 陈剑波 (1086)
- 滇东北镇雄羊场磷矿区下寒武统梅树村组沉积环境及富集成矿机制 ..... 米云川, 杜 斌, 夏建峰, 王 枫, 周 骞, 黄太平, 胡清华 (1099)
- 扬子西缘羊场磷矿地球化学特征及其对成磷环境的指示 ..... 周 骞, 米云川, 赵 勇, 黄太平, 王加昇, 胡清华, 夏建峰, 宰 西 (1119)

- 贵州织金磷-稀土矿床磷块岩的矿物组成及胶磷矿中杂质元素成因 ..... 李紫苇, 谢玉玲, 秦绪岩, 代作文, 曲云伟, 尉玉蓉 (1139)
- 云南省磷矿成矿规律及找矿方向 ..... 董涛, 杜斌, 王枫, 杨淑胜, 黄太平, 米云川, 段召艳, 周 莺 (1157)
- 四川什邡式磷矿床中、重稀土元素富集规律及资源潜力——以绵竹清平磷矿为例 ..... 代作文, 谢玉玲, 徐航航, 曲云伟, 秦绪岩 (1175)
- 云南镇雄羊场磷矿高品位磷块岩工艺矿物学研究 ..... 黄太平, 夏建峰, 米云川, 胡清华, 赵 勇, 周 莺 (1188)
- 磷块岩成矿过程及其稀土元素富集机理综述 ..... 雷梦丹, 钟日晨, 崔 浩, 王赵依, 陈 缓, 李艳霞, 于 畅, 邓 依, 凌一凡, 李默洁, 黎子萌, 陈昂快 (1199)
- 专题研究**
- 内蒙古阿如罕敖包花岗闪长岩年代学和地球化学及其对古亚洲洋演化的启示 ..... 程天赦, 杨文静, 张学斌, 滕 超, 杨欣杰, 陈喜庆, 肖 登, 吴荣泽, 周长红 (1218)
- 虎峪沟长城系底部富硅火山岩、火山碎屑岩及其中富铁钛熔体包裹体的发现 ..... 孙嘉婧, 谢玉玲, 于 超, 曲云伟, 夏加明 (1235)
- 班公湖-怒江缝合带西段昂龙岗日地区中新世岩浆作用 ..... 吴建亮, 廖芝华, 白云, 王 波, 秦宇龙, 刘 文, 徐云峰, 张 彤, 景 阳, 熊昌利 (1251)
- 红杂色沉积建造中铀矿化的特殊岩石矿物特征——以库车拗陷新近系吉迪克组铀矿点为例 ..... 郭 强, 肖 菁, 刘 念, 王强强, 许 强, 武 勇, 严张磊, 刘梦魁, 丁 桐 (1268)
- 辽东宽甸钴矿勘查区变基性岩地球化学特征和年代学研究 ..... 廉 涛, 孙 莉, 王 舫, 刘福来, 邓文婷 (1281)
- 马达加斯加 Maevatanana 金矿床 Re-Os 同位素年龄及其地质意义 ..... 杨喜安, 许德如 (1302)
- 粤北书楼丘矿床绿泥石成分特征及其指示意义 ..... 孙国权, 范洪海, 高永宝, 庞雅庆, 高 飞, 薛春纪, 范堡程 (1313)
- 川西可尔因矿田李家沟矿床锂辉石工艺矿物学研究 ..... 袁 宵, 陈翠华, 谢 伟, 杨善涛, 赖 翔, 杨 魁, 陈宵杰, 蔡云华 (1328)

## 第43卷第6期

## 青藏高原大宗金属资源 专辑

## 前言

- 滇西北普上含矿斑岩体的岩石地球化学及蚀变特征研究 ..... 莫 雷, 冷成彪, 邢新龙, 李凯旋, 陈喜连, 余海军, 王艳军, 陈加杰 (1339)
- 滇西北卓玛铅锌矿床成矿闪锌矿原位微量元素及硫化物原位硫同位素特征与地质意义 ..... 王乾鑫, 冷成彪, 李凯旋, 王大钊, 张兴春 (1361)
- 滇西珠街萤石-锑矿区含矿岩系凝灰岩锆石 U-Pb 年龄与沉积时代 ..... 张 涵, 王 维, 薛传东 (1380)
- 滇西河西锑矿床的陆相热水沉积成因——天青石矿物化学和 Sr-S 同位素证据 ..... 邓邹斌, 薛传东, 王 维, 张佳慧, 邓 杨, 李政桥 (1411)
- 滇中九龙方解石矿床成因——来自方解石矿物化学、流体包裹体、C-O 同位素组成和 U-Pb 年代学的证据 ..... 周红琳, 魏爱英, 王 维, 张佳慧, 薛传东 (1431)
- 东昆仑百吨沟花岗岩岩石地球化学、锆石 U-Pb 年龄与 Hf 同位素特征及其构造意义 ..... 韩 玉, 王启林, 谢海林, 陈苏龙, 李少南, 李玉莲, 王 斌, 张政治, 王 雷, 马志全, 郭 伟 (1448)
- 冈底斯南缘桑日地区渐新世花岗质岩石成因及其形成机制 ..... 董洪凯, 段炳鑫, 唐建科, 捉振海, 王 硕, 刘思林, 刘 广 (1465)
- 西藏冈底斯-喜马拉雅造山系区域地球化学元素背景特征及找矿预测 ..... 李洪梁, 刘 洪, 黄 勇, 郑 强, 黄 岗 (1484)
- 冈底斯南缘侏罗纪岩浆弧地壳组成及俯冲和碰撞相关斑岩矿床成因联系——来自 Nd 同位素、 $\Delta FMQ$  和  $Eu/Eu^*$  填图的认识 ..... 全海辉, 柴 鹏, 朱雄飞, 袁玲玲, 苏崇斌, 李龙星, 罗关银, 张万元, 徐家益 (1513)
- 羌塘南缘青草山斑岩铜矿床地质特征与岩浆属性 ..... 董艳蕊, 赵晓燕, 杨竹森, 刘 畅 (1531)
- 西藏中拉萨地块门巴二长花岗岩年代学、岩石地球化学特征及地质意义 ..... 解鸿儒, 郎兴海, 邓煜霖, 何 青, 李 宸, 王兆帅, 吴伟哲, 王涌滔 (1553)
- 西藏玉龙斑岩铜矿床成矿斑岩起源及成矿意义 ..... 孙茂好, 代作文, 刘申志, 李秋耘, 周怿惟, 杨志明, 侯增谦 (1578)
- 基于 ASTER 的遥感蚀变信息提取——以西藏玉龙斑岩铜矿带为例 ..... 张远飞, 王艳军, 王大钊, 李凯旋, 梁 丰, 冷成彪 (1601)

**Acta Petrologica et Mineralogica****2024 ( Vol. 43)****Contents****No. 1**

- Geochronology, petrogenesis and tectonic setting of the Eocene-Oligocene intrusive rocks in Chiclayo area, north of Peru .....  
 ..... YAO Chun-yan, GUO Wei-min, LIU Jun-an, LI Han-wu and WANG Tian-gang (1)
- Study of the genetic mechanism of ooids in Permian bauxite ore from western Guangxi ... ZHANG Qi-lian, WEI Fang, DENG Jun,  
 LI Huo-song, CHEN Wen-lun, GONG Yan, QIN Hong-feng, XIN Xiao-wei, HUANG Shang-heng, WANG Xue-heng and SU Ke (21)
- Can biotite geothermometer be used to estimate the crystallization temperature of granitic intrusive rocks? .....  
 ..... XU Hong-xue and WANG Yang (37)
- The discovery and prospecting significance of lithium-enriched claystone in the Middle-Late Triassic boundary in Zhenba area, southern  
 Shaanxi ..... ZHOU Wei, QI Xiao-peng, ZHANG Jia-sheng, XU Lei, YANG Jie and GAO Jing-min (47)
- Hydrochemical characteristics of formation water in tight sandstone gas reservoirs and their geological significance: A case study of the  
 Xinchang Gas Field in Western Sichuan Depression .....  
 ..... SHAN Jun-jie, HUANG Shi-lin, BI You-yi, DENG Mei-zhou, YAN Huan-rong, HENG Yong and ZHENG Yan (63)
- Review, application and prospect of global mineral deposit databases ..... SHI Rui and ZHANG Hong-rui (74)
- Study of the effect of roasting on the mineralogical characteristics of fibrous brucite ..... LIU Fang-fang and NIU Ji-nan (89)
- Stabilization of phosphorus in phosphogypsum by biochar ..... AO Xiang, XU Guan-li, LI Zhen and BAI Han (100)
- Passivation remediation of cadmium contaminated soil by attapulgite-double-crosslinked hydrogel microspheres .....  
 ..... ZHONG Xiao-qin, HE Guang-xi, MA Xue, ZHU Xia-ping, REN Wei and ZHAO Ping (109)
- Biosynthesis of FeS and its stability column migration study ..... REN Xia, YAN Ning-zhen and LIU Jing (117)
- Utilization technology of alkaline filtrate in kaliophilite preparation system .....  
 ..... LU Hua-long, HUO Guang-xiang, DUAN Yong-hua, GOU Ming-lei, LIU Jun-na and LIU Chen (125)
- New minerals approved in 2011 ..... CAI Jian-hui (131)

**No. 2**

- Petrogenesis of Mg-Al granulite from Huatugou ultrahigh-temperature metamorphic terrane in the western Qaidam Block and its relation-  
 ship with the behavior of the melts ..... TENG Xia, ZHANG Jian-xin, MAO Xiao-hong, WU Ya-wei and GUO Qi (201)
- Late Mesoproterozoic granulite-facies metamorphism in the Oulongbuluke block of the North Qaidam Mountains: Constraints from petrol-  
 ogy, phase equilibrium modeling and U-Pb dating of garnet-sillimanite-cordierite gneisses .....  
 ..... MAO Xiao-hong, LU Zeng-long, ZHANG Jian-xin, GUO Qi and WU Ya-wei (219)
- Mineralogy, protolith and geological implication of piemontite-bearing metacherts in Qingshuigou, North Qilian .....  
 ..... GUO Jing, ZHANG Jian-xin, LI Yun-shuai, WU Ya-wei, LI Guo-qian, ZHOU Kai, GUO Qi and MAO Xiao-hong (238)
- Proto-Tethys Ocean subduction initiation: New evidence from the Early Cambrian forearc magmatism in the Northern Qilian Orogen  
 ..... ZHANG Tong-yue, ZHANG Jian-xin, YU Sheng-yao, QI Yu and LI Chuan-zhi (250)
- Metamorphic *p-T* evolution and tectonic implications of granulite-facies meta-sedimentary rocks in the Weiziping from the Qinling Com-

- plex ..... *LIU Xue-feng, GOU Long-long, TIAN Zhi-bo, ZHOU Feng and MA Ye-ting* (274)
- Petrogenesis of Cambrian plagiogranites in the Shangdan suture zone of the West Qinling: Insights to subduction initiation of the Proto-Tethys ..... *GUO Qi, ZHANG Jian-xin, MAO Xiao-hong and WU Ya-wei* (304)
- Petrogenesis of the Silurian Liqiao granites in the Tianshui area, West Qinling: Constraints from geochemistry, zircon U-Pb geochronology and Hf isotope ..... *LI Guo-qian, ZHOU Kai, LI Yun-shuai, ZHANG Jian-xin, WU Ya-wei, GUO Qi and MAO Xiao-hong* (330)
- Petrogenesis of Permian mafic rocks from the northern Yushu area and implications for the formation of a continental back-arc basin ..... *LIU Bin, CAI Hao-long, MA Chang-qian, WU Luan, CHENG Qi, LI Fu-lin and SUN Yang* (344)
- Petrology, geochemistry and geochronology of granulitized eclogites from the Nyönno Ri region, central Himalaya ..... *LIU Xue, ZHANG Gui-bin, ZHANG Li-fei and LIU Shuai-qi* (360)
- Geochemistry, chronological framework and tectonic implications of metamorphic volcanic-sedimentary rocks from the Dahongshan Group in southwestern Yunnan Province ..... *JIANG Hang-yun, LIU Fu-lai, WANG Fang, WANG Hui-ning and LI Tong-yu* (393)
- Ti-chondrodite: A diagnostic mineral of ultra-high pressure metamorphism for serpentinites in cold subduction zones ..... *YANG Wen-fuan and SHEN Ting-ting* (427)
- Zircon dating by laser Raman spectroscopy and its application ..... *ZHAO Xiao-xuan, ZHANG Cong, LIU Xiao-yu, QIN Xue-qing, ZHANG Jian-xin and MAO Xiao-hong* (450)
- Fe-Cu-Zn-Mo isotopes as tracers of redox processes ..... *HUANG Si-min and ZHANG Gui-bin* (469)

### No. 3

- Phase composition and color origin of Peru's pink opals ..... *QIAN Xue-wen, LI Jing-jing, YANG Li and XU Ya-fen* (495)
- Study on the effect of heat treatment on the color of zoisite and the cause of coloration: The example of yellow and blue Tanzanian zoisite ..... *YANG Shu-qi and LIU Ying-xin* (503)
- Study of decoloration efficiency of photochromism in hackmanite from Mogok, Myanmar (Burma) ..... *TANG Jun, CHEN Yang-ling, GUO Ying, HE Qing and QIN Qiao-hong* (518)
- A review of research on the emerald origin determination ..... *ZHENG Yu-yu, YU Xiao-yan, XU Bo, GUO Hong-shu, YAN Ying, ZHANG Yi, TANG Jun and ZHAO Si-yi* (525)
- A brief analysis of forming reasons of the She inkstone texture and ink-making mechanism ..... *TANG Gan-yu and LAI Yong* (562)
- Mineral chemistry of aquamarine from Kujierte pegmatite in Altay, Xinjiang ..... *DING Zhi-dan, ZOU Yu and WANG Die* (575)
- Development of a new ultraviolet photoluminescence image high-speed acquisition device and its application in screening natural diamonds ..... *LIANG Rong, LAN Yan, GAO Kong, ZHANG Xiao-hu, CHEN Mu-yu, WANG Hong-hao and LU Tai-jin* (592)
- A study on the durability of different types of pearls in various external environments ..... *LIU Fu-kang, GUO Ying, LIU Wei-ming, ZHAO Bei, LIU Xin and SONG Yuan-meng* (599)
- Spectral characteristics and high-pressure X-ray diffraction spectroscopy of apophyllites with different tones in Huanggangliang, Inner Mongolia ..... *XIAO Qi-run and LIU Ying-xin* (611)
- Gem mineralogy and inclusion characteristics of gahnite from Nigeria ..... *CHEN Yi-fang, JIN Xue-ping, LIU Zi-qi, ZHOU Zheng-yu, ZHENG Jun-hao, GUAN Qi-yun and CHEN Qi* (619)
- Gem mineralogical and geochemical characteristics of the black cyan nephrite ..... *FU Yu-lei, SHI Miao, CAO Qin-yuan and MA Shi-yu* (630)

- Colouration in purple jadeite-jade from Myanmar: A spectroscopy and chromaticity investigation .....  
 ..... SHANG Yan-ran, WANG Wei-zhao, JIN Tian-li, HUANG Lin-ming, WU Zhong-yun and GUO Ying (643)
- Quantitative study on color and spectral characteristics of Huanglong jade from Myanmar ..... NIU Jia-rui and GUO Ying (652)
- Structural characteristics and color genesis of yellow silicified scleractinia ..... GUO Yi-lin and GUO Ying (663)
- Gem mineralogy characteristics of Yunxiao garnet, Fujian, China .....  
 ..... CHEN Xing-yun, ZHANG Liang, WANG Hao-shuai, ZHANG Rui-rui and SUN Si-chen (673)
- The gemological and mineralogical characteristics of Brazilian diamond ..... LI Yu-xuan, HUANG Ying and LIU Ying-xin (685)
- Gemological characteristics and color genesis of green Miyu jade from Henan, China .....  
 ..... LI Wen-juan, YU Xiao-yan and BAI Feng (697)
- Spectroscopic characteristics of copal resins from six different origins ..... LI Jia-rong, LI Yan and WU Jia-xin (709)
- Geochemistry, zircon U-Pb age and Hf isotope characteristics of high-Ba-Sr granites in Mapeng area, Taihang Mountains and their  
 geological significance ..... CHENG Hai-feng, DU Li-lin, YANG Chong-hui,  
 SU Rong-kun, MENG Qing-tao, LIU Guang, WANG Ming-ming, ZHANG Zheng-ping, JING Jing-jing and WANG Xiao-dong (719)
- Detrital zircon U-Pb-Hf isotopic studies on sandstones in the Changzhougou Formation of the Changcheng System in Wengcheng area,  
 Zanhuan Complex ..... WANG Le-le,  
 LIU Ping-hua, ZHOU Wan-peng, DU Li-lin, YANG Chong-hui, ZHANG Wen, CAO Qiu-xiang and CHEN Li-mei (737)
- Infrared spectroscopic characteristics and prospecting applications of altered minerals in the Jinyinshan antimony deposit in Hubei  
 Province ..... QIU Jia-wei,  
 LIU Xin-xing, XUE Zhe, ZHANG Juan, CHENG Jia-wei, LU Ke-xuan, WANG Meng, YANG Jun-feng and WANG Ying-xue (776)

#### No. 4

- Geochemical characteristics and metallogenic indications of garnet in Na'a tungsten deposit, Xizang .....  
 ..... WU Ming-kai, ZHANG Gang-yang, CHEN You-liang, CHEN Xi and HE Zhong-xiang (787)
- Tectonic significance of granite in Dana ancient volcanic edifice in Nanmulin area, Xizang ..... HAN Fei,  
 SONG Yuan-bao, LI Zheng, HUANG Yong-gao, DAI Ke-gang, ZHANG Wei, LI Ying-xu, JIA Xiao-chuan and YANG Xue-jun (803)
- Geochemical characteristics and petrogenetic mechanism of Early Cretaceous highly fractionated I-type granites in Laoshan .....  
 ..... DU Juan, YU Sheng-yao, GAO Xiang-yu, JIANG Xing-zhou, PENG Yin-biao, JI Wen-tao and LI Chuan-zhi (821)
- The emplaced depth of the granite from Jintan pluton: Constraints from mineral chemistry of muscovite .....  
 ..... TAO Ji-hua, YANG Yue-gui, ZHANG Ji-yuan, SHI Zheng and XU De-ru (847)
- Geochemical characteristics and geological significance of the Upper Triassic Sanhedong Formation limestone in the Hexi Area of Northwest  
 Yunnan Province ..... YANG Zhi-juan, ZHU Zhi-jun, DING Ting, MA Yuan-chi, WANG Tian and ZHOU Shi-hao (856)
- Shallow-marine redox conditions during the Ediacaran in the Yangtze Plateform and its impact on bio-evolution .....  
 ..... YAN Bin, ZHU Xiang-kun, LI Jin and MA Jian-xiong (871)
- Distribution characteristics and main controlling factors of accumulation of bauxite rock in Taiyuan Formation in Longdong area .....  
 ..... XIAO Wen-tong, HE Li-an, WANG Lei, WANG Wen-ze, MA Zhe and ZHU Jia-bao (889)
- The evolution of Eocene saline lake brine and sources of K and Li in the southwestern Jiangling depression: Evidence from fluid  
 inclusion of halite ..... YAN Kai,  
 WANG Chun-lian, CHEN Ren-yi, LIU Xue, LIU Yan-ting, YIN Chuan-kai, SUN Pei-jie, ZHAO Yu-xin and LIAO Shi-long (905)

- Characteristics and significance of authigenic clay minerals in the Mengyejing potash deposit ..... *SHEN Li-jian and PENG Qiang* (918)
- Weak correlation and proof of mineral cleavage/fracture nature with interplanar spacing ..... *WANG Ji-zhen, ZHANG Jia-qi, YAN Rong-lu, CHEN You-liang and LI Jia-wei* (931)
- Geochronological and petrogeochemical characteristics of Dongcao aplite-type niobium-tantalum deposit in Jiuling area and their geological significance ..... *DANG Fei-peng, LÜ Chuan, ZHANG Yong, XIAO Zhi-bin, ZHANG Tao, CHEN Xin, LI Zhi-peng, TANG Jun-yang and LUO Jian-qun* (938)
- Genesis of the Laohudong Pb-Zn deposit in the north Wuyi area in Jiangxi Province; Evidence from in situ trace element and sulfur isotope of sulfides ..... *FAN Shi-ni, ZHU Yun, LI Gui-xian, SHI De-feng and JIA Meng-jie* (956)
- Remote sensing prospecting prediction of Pengshan ore field in De'an County, Jiangxi Province ..... *TAN Rong, XU Yu-min, XU Xian-yu, WANG Tian-chen and YU Zhen-dong* (973)
- Study on the release of arsenic and permeability from arsenic-containing ferrihydrite by sulfate reducing bacteria and acidiphilium cryptum JF-5 ..... *ZHANG Shi-ying, LIU Ying, LIU Qin, LUO Da-yong and LIU Jing* (982)
- Heterogeneous reactions of SO<sub>2</sub> and NO<sub>2</sub> on the surface of muscovite ..... *ZHANG Xing-yu, DONG Fa-qin, ZHENG Fei, HUO Ting-ting, ZHOU Lin, YU Jie-yu, ZHAO Fang-yuan, GUO Ming and LI Wen-jin* (994)
- Transformation of antimony speciation in the yellow soil of Qinglong antimony mine induced by δ-MnO<sub>2</sub> ..... *LIU Yu-jiao, ZHU Xia-ping, CUI Ting, REN Wei and ZHAO Ping* (1005)
- Genetic relationship between Mississippi Valley-type (MVT) lead-zinc deposit and evaporite: A review ..... *TIAN Li-dan, SONG Yu-cai, ZHUANG Liang-liang and HUANG Gang* (1012)
- Fractionation mechanism of iron isotope and its application in mafic-ultramafic magmatism and metallogenesis ..... *QIU Tan, TANG Qing-yan, YANG Hao-chen, LI Zhuo-ming, ZHANG Yan, LIU Wei, ZHAO Chi and WANG Xiao-wei* (1034)
- LA-ICP-MS multi-pulse short time ablation method for ultra-thin rings of zircon ..... *CHEN Jing-ya, WANG Fang-yue, WANG Jian, ZHOU Tao-fa and LI Quan-zhong* (1052)
- A study on methods for chemical separation of Cr from Ca ..... *WANG Zi-chen, SUN Jian, LI Shi-zhen, MA Jian-xiong and LI Xiao-wei* (1066)

## No. 5

- Breakthrough in deep ore prospecting of Yangchang phosphate deposit, the largest concealed monomer phosphorus-rich deposit in Asia, and its significance ..... *YANG Shu-sheng, WANG Lu, WANG Yun-xiao, MI Yun-chuan, DONG Tao, HUANG Tai-ping, WANG Feng, SHE Zhong-ming and DUAN Wen-ting* (1073)
- Inorganic and organic carbon isotopes from Early Cambrian Yangchang phosphate deposit in Zhenxiong County, Yunnan Province ..... *LIU Wen-jie, ZHOU Yan-ling, MI Yun-chuan, NIU Yi-ning, WU Jia-yi, ZHOU Yu-guo and CHEN Jian-bo* (1086)
- Sedimentary environment and enrichment mineralization mechanism of the Lower Cambrian Meishucun Formation in the Yangchang phosphate deposit of Zhen-xiong area, Northeastern Yunnan ..... *MI Yun-chuan, DU Bin, XIA Jian-feng, WANG Feng, ZHOU Qian, HUANG Tai-ping and HU Qing-hua* (1099)
- Geochemical characteristics of the Yangchang phosphate deposit in western margin of the Yangtze Block and its indications of the phosphorus-forming environment ..... *ZHOU Qian, MI Yun-chuan, ZHAO Yong, HUANG Tai-ping, WANG Jia-sheng, HU Qing-hua, XIA Jian-feng and ZAI Xi* (1119)
- Mineral composition of phosphorites and the origin of impurity elements in colophonite in the Zhijin REEs-rich phosphorite deposit,



- Guizhou Province ..... *LI Zi-wei, XIE Yu-ling, QIN Xu-yan, DAI Zuo-wen, QU Yun-wei and WEI Yu-rong* (1139)
- Metallogenic regularity and prospecting direction of phosphate ore in Yunnan Province .....  
*DONG Tao, DU Bin, WANG Feng, YANG Shu-sheng, HUANG Tai-ping, MI Yun-chuan, DUAN Zhao-yan and ZHOU Qian* (1157)
- Enrichment regularity and resource potential of medium and heavy rare earth elements in Shifang-type phosphorite deposits, Sichuan:  
 A case study of Qingping phosphorite deposit in Mianzhu .....  
 ..... *DAI Zuo-wen, XIE Yu-ling, XU Hang-hang, QU Yun-wei and QIN Xu-yan* (1175)
- Study on process mineralogy of the high grade phosphorite in Yangchang phosphate deposit, Zhenxiang, Yunnan Province .....  
 ..... *HUANG Tai-ping, XIA Jian-feng, MI Yun-chuan, HU Qing-hua, ZHAO Yong and ZHOU Qian* (1188)
- Review on metallogenic process and rare earth elements enrichment mechanism of phosphorite deposits .....  
 ..... *LEI Meng-dan, ZHONG Ri-chen, CUI Hao, WANG Zhao-yi, CHEN Huan, LI Yan-xia, YU Chang, DENG Yi, LING Yi-fan, LI Mo-jie, LI Zi-meng and CHEN Ang-kuai* (1199)
- Chronology and geochemistry of the Aruhan granodiorite in Inner Mongolia and their implications for the evolution of the Paleo-Asian  
 Ocean ..... *CHENG Tian-she, YANG Wen-jing, ZHANG Xue-bin, TENG Chao, YANG Xin-jie, CHEN Xi-qing, XIAO Deng, WU Rong-ze and ZHOU Chang-hong* (1218)
- The discovery of siliceous volcanic rocks, volcanoclastic rocks, and iron-titanium-rich melt inclusions at the bottom of the Great Wall  
 System in Huyugou ..... *SUN Jia-jing, XIE Yu-ling, YU Chao, QU Yun-wei and XIA Jia-ming* (1235)
- Miocene magmatism in Anglonggangri area, western Bangong-Nujiang suture zone ..... *WU Jian-liang, LIAO Zhi-hua, BAI Yun, WANG Bo, QIN Yu-long, LIU Wen, XU Yun-feng, ZHANG Tong, JIN Yang and XIONG Chang-li* (1251)
- Special rock and mineral characteristics of uranium mineralization in red variegated sedimentary formations; Taking the uranium occur-  
 rence of Neogene Jidike Formation in Kuqa Depression as an example ..... *GUO Qiang, XIAO Jing, LIU Nian, WANG Qiang-qiang, XU Qiang, WU Yong, YAN Zhang-lei, LIU Meng-kui and DING Tong* (1268)
- Whole-rock geochemistry and geochronology of meta-basic rocks from the cobalt exploration area in Kuandian, eastern Liaoning  
 Province ..... *LIAN Tao, SUN Li, WANG Fang, LIU Fu-lai and DENG Wen-ting* (1281)
- Re-Os isotope age of pyrite from the Maevatanana gold deposit in Madagascar and its geological significance .....  
 ..... *YANG Xi-an and XU De-ru* (1302)
- Composition characteristics and indicative significance of chlorites in the Shulouqiu deposit, northern Guangdong .....  
 ..... *SUN Guo-quan, FAN Hong-hai, GAO Yong-bao, PANG Ya-qing, GAO Fei, XUE Chun-ji and FAN Bao-cheng* (1313)
- Study on process mineralogy of spodumene in Lijiagou deposit, Ke'eryin ore field, western Sichuan .....  
 ... *YUAN Xiao, CHEN Cui-hua, XIE Wei, YANG Shan-tao, LAI Xiang, YANG Kui, CHEN Xiao-jie and CAI Yun-hua* (1328)

## No. 6

- Petrographic geochemistry and alteration characterization of ore-bearing porphyry bodies in Pushang, Northwest Yunnan, China .....  
*MO Lei, LENG Cheng-biao, XING Xin-long, LI Kai-xuan, CHEN Xi-lian, YU Hai-jun, WANG Yan-jun and CHEN Jia-jie* (1339)
- Characteristics and geological significance of in-situ trace elements of sphalerite and in-situ sulfur isotope of the sulfides in the Zhuoma  
 Pb-Zn deposit in Northwest Yunnan .....  
 ..... *WANG Qian-xin, LENG Cheng-biao, LI Kai-xuan, WANG Da-zhao and ZHANG Xing-chun* (1361)
- Zircon U-Pb ages and sedimentary times of the tuffs within the ore-bearing sequences at the Zhujie fluorite-antimony ore field in western  
 Yunnan Province ..... *ZHANG Han, WANG Wei and XUE Chuan-dong* (1380)
- Continental hydrothermal sedimentary origin of the Hexi strontium deposit in western Yunnan Province, SW China; Evidence from

- elemental and Sr-S isotopic compositions of celestines .....  
 ..... *DENG Zou-bin, XUE Chuan-dong, WANG Wei, ZHANG Jia-hui, DENG Yang and LI Zheng-qiao* (1411)
- Genesis of the Jiulong calcite deposit in Central Yunnan Province, SW China: Evidence from mineral chemistry, fluid inclusions, C-O isotopic composition and U-Pb geochronology .....  
 ..... *ZHOU Hong-lin, WEI Ai-ying, WANG Wei, ZHANG Jia-hui and XUE Chuan-dong* (1431)
- Geochemistry, zircon U-Pb chronology and Hf isotopes of the Baidungou granite from the East Kunlun Orogen and their implications .....  
 ..... *HAN Yu, WANG Qi-lin, XIE Hai-lin, CHEN Su-long, LI Shao-nan, LI Yu-lian, WANG Bin, ZHANG Zheng-zhi, WANG Lei, MA Zhi-quan and GUO Wei* (1448)
- Lithogenesis and formation mechanism of Oligocene granitic rocks of Sangri area in the southern Gangdese .....  
 ..... *DONG Hong-kai, DUAN Bing-xin, TANG Jian-ke, TI Zhen-hai, WANG Shuo, LIU Si-lin and LIU Guang* (1465)
- Regional geochemical element background characteristics and prospecting prediction of the Gangdese-Himalayan orogenic system in Xizang .....  
 ..... *LI Hong-liang, LIU Hong, HUANG Yong, ZHENG Qiang and HUANG Gang* (1484)
- The crustal composition of Jurassic magmatic arc in the southern margin of the Gangdise arc and the genetic relationship between subduction and collision related porphyry deposits: Insights from Nd isotope,  $\Delta FMQ$ , and Eu/Eu\* mapping .....  
 ..... *QUAN Hai-hui, CHAI Peng, ZHU Xiong-fei, YUAN Ling-ling, SU Chong-bin, LI Long-xing, LUO Guan-yin, ZHANG Wan-yuan and XU Jia-yi* (1513)
- Geological characteristics and magmatic properties of the Qingcaoshan porphyry copper deposit in the southern margin of Qiangtang .....  
 ..... *DONG Yan-rui, ZHAO Xiao-yan, YANG Zhu-sen and LIU Chang* (1531)
- Geochronology, geochemistry characteristics and geological significance of Menba monzonitic granite, central Lhasa subterrane, Xizang .....  
 ..... *XIE Hong-ru, LANG Xing-hai, DENG Yu-lin, HE Qing, LI Chen, WANG Zhao-shuai, WU Wei-zhe and WANG Yong-tao* (1553)
- Origin and metallogenic significance of the porphyry intrusions in the Yulong porphyry Cu deposit, Xizang .....  
 ..... *SUN Mao-yu, DAI Zuo-wen, LIU Shen-tai, LI Qiu-yun, ZHOU Yi-wei, YANG Zhi-ming and HOU Zeng-qian* (1578)
- Extraction of alteration information based on ASTER remote sensing: A case study of the Yulong porphyry copper belt in Xizang ...  
 ..... *ZHANG Yuan-fei, WANG Yan-jun, WANG Da-zhao, LI Kai-xuan, LIANG Feng and LENG Cheng-biao* (1601)