

# 《西北地质》2021 年总目次

## 2021 年 第 54 卷 第 1 期 (总 219 期)

上扬子地区双河露头五峰组—龙马溪组下段化学层序地层分析 ..... 王茜, 黄永建, 张治锋, 王长红, 李祥( 1 )

新疆博格达中段木垒地区基性侵入岩岩石地球化学、锆石 U-Pb 年代学及其构造意义 ..... 龙登红( 15 )

东昆仑战红山地区花岗岩 LA-ICP-MS 锆石 U-Pb 测年及岩石地球化学特征 ..... 李积清, 张鑫利, 王涛, 李青, 王泰山, 薛万文( 30 )

青海省那陵郭勒河中晚三叠世侵入岩地球化学特征及地质意义 ..... 吉明甲, 魏丽琼, 徐博, 刘博, 白洪溪, 陈晓琳, 李兄( 41 )

云南龙陵地区苏帕河花岗岩形成时代与地球化学特征: 泛非运动的岩浆响应 ..... 苑新晨, 杨启军, 秦亚, 吴彦彬, 郑超杰, 徐放( 55 )

内蒙古水泉沟地区化探次生晕找矿效果浅析 ..... 张荣, 周文博, 阳正勇, 周荣辉, 刘彤, 穆海祺( 72 )

中国西北地区岩浆铜镍矿床地质特点与找矿潜力 ..... 张照伟, 钱兵, 王亚磊, 李文渊( 82 )

南秦岭大巴山地区黑色岩系型钨钼矿床地质特征及成因 ..... 温志亮, 赵氏, 李普涛, 彭璇, 孙少珍( 100 )

巴什布拉克含轴地沥青钨矿床矿化特征和成矿机理 ..... 刘正义, 许强, 刘红旭, 董文明, 秦明宽, 刘佳林, 朱泉龙( 109 )

甘肃寨上超大型钨、金(铋)多金属矿床成因研究 ..... 杨瀚文, 王建中, 魏立勇, 赵军, 马承, 刘明, 孙彪, 魏文昊( 125 )

青海赛什腾地区石英脉型金矿特征及找矿前景分析 ..... 保广普, 张林, 张海龙( 139 )

鄂西沉积型赤铁矿含矿沉积盆地与成矿作用分析 ..... 斯小华, 刘林, 夏循茂( 147 )

陕北华庆地区长 8 油藏复杂水体成因与分布 ..... 董满仓, 杨水胜, 王全, 付国民( 158 )

环县—正宁地区延长组长 9 沉积体系及沉积演化特征研究 ..... 白卓立, 耳闻( 166 )

毛塞儿比盆地油气成藏条件特征分析 ..... 赵红岩, 梁建设, 孔令武, 赵佳奇, 陈亮, 冯鑫, 喻英梅, 王嘉( 179 )

同位素水化学指示的新疆孔雀河流域地下水与地表水关系 ..... 张俊, 尹立河, 顾小凡, 李瑛, 杨炳超, 姜军, 贾伍慧, 谢万兵, 王拓, 唐小平, 董佳秋, 王倩, 常亮( 185 )

关中盆地西安凹陷地热水赋存特征及其资源量估算 ..... 黄建军, 周阳, 滕宏泉, 梁欣阳, 高晶波, 曹晓凡, 薛胜泽, 崔阳( 196 )

基于 DAN-W 模型的高速远程滑坡灾变过程分析 ..... 张艳玲, 陈亮, 闫金凯, 高杨( 204 )

黄土湿陷性与土体物性指标的相关性研究 ..... 郭倩怡, 王友林, 谢婉丽, 石卫( 212 )

基于“承载基础-承载现状-承载潜力”模型的山东省地质环境承载力评价 ..... 李念春, 张学强, 冯泉霖, 徐秋晓, 李洪涛, 郝杰, 吴迪( 222 )

基于局部惩罚型变权的建设用地生态适宜性空间模糊评价——以陕西延安宝塔区为例 ..... 王鹏, 刘拓, 邱德明( 232 )

甘肃省富硒土壤标准研究与探讨 ..... 李春亮, 李泽, 杨菁, 王巧薇, 杨景宇( 242 )

基于国土空间规划视域下的工矿城镇发展模式——以陕北煤炭资源集中开采区为例 ..... 孙艺香( 247 )

论固体矿产绿色勘查的重要意义——以新民绿色勘查示范为例 ..... 杜简, 曾道国, 李阳, 苏永虎, 巩鑫, 文愿运( 256 )

\* \* \* \* \*

《西北地质》知识产权声明 ..... ( 268 )

新疆富海雅丹地貌 ..... 郝沛摄(封面)

## 2021 年 第 54 卷 第 2 期 (总 220 期)

南秦岭勉略构造带三岔子地区田坝辉绿岩地球化学、锆石 U-Pb 年龄及地质意义 ..... 王一烽, 裴先治, 李佐臣, 李瑞保, 裴磊, 刘成军, 王盟, 赵少伟, 陈有炘, 周海( 1 )

青海南山构造带东段化隆岩群中变质侵入体的形成时代及地球化学特征 ..... 吴树宽, 张元, 杨启安, 吴金宏, 何利, 马国骅, 李春斌, 朵高德( 19 )

甘肃榆中县黄崖口铅锌矿赋矿岩系变流纹岩锆石 U-Pb 年龄及其地质意义 ..... 段忠志, 何世平, 许波, 时超, 王立轩, 魏小燕( 30 )

西藏冈底斯成矿带拉屋锌铜多金属矿床成矿物质来源: 硫化物 LA-MC-ICP-MS 原位 S 同位素约束 ..... 凌晨, 李光明, 张志, 张林奎, 曹华文( 43 )

乌兹别克南努拉套奥陶—志留纪碎屑岩物源示踪及其构造意义 ..... 张雪, 翁凯, 马中平, 曹积飞, 陈博, 曹凯( 55 )

柴北缘鱼卡地区大煤沟组七段页岩岩相特征及沉积演化模式 ..... 白楠, 徐尚, 王雨轩, 郭天旭, 石万忠( 74 )

西秦岭北缘上新世韩家沟砾岩岩石学特征及物源分析 ..... 赵海涛, 郭进京, 刘重庆, 许何弘昕( 86 )

准噶尔盆地阜东斜坡区三叠系韭菜园子组成岩作用特征及其对储层物性影响 ..... 于景维, 季汉成, 史燕青, 王泽胜, 卢炳雄, 李钰, 王良哲( 99 )

胶东黑岚沟金矿田黄铁矿热电性研究及深部成矿预测 ..... 吴晋超, 申俊峰, 申玉科, 李国武, 张华锋, 杜佰松, 何泽宇, 徐滔鑫( 111 )

基于 ASTER 光谱特征的岩性填图和蚀变信息提取: 念扎金矿例析 ..... 宋伊圩, 王鹏, 连琛芹, 代雪健, 王斌( 126 )

陕西南洛杨斜金矿床地质特征与控矿因素探讨 ..... 马承, 葛战林, 郑艳荣, 郝迪, 李晓东, 王元伟( 137 )

陕西小秦岭金矿成矿流体特征及成矿过程研究 ..... 冯伟华, 余鹏涛, 彭海练, 王明志 (149)

龙首山成矿带红石泉矿床多期次铀成矿作用探讨 ..... 王贵, 王伟, 王刚, 李涛, 刘涛 (157)

海拉尔盆地贝尔凹陷伊敏组上段骨架砂体特征及其铀成矿潜力 ..... 黄少华, 周文博, 东艳, 秦明宽 (166)

英东油田长井段薄互层油藏储层产能分类及预测研究 .....  
     马凤春, 陈晓冬, 王琳, 杨成, 梅华, 唐丽, 杨玥, 王靖茹, 周艳, 赵为永, 杨红刚, 李兆亮, 刘遥, 王生香 (179)

碳酸盐质砾岩致密油成藏主控因素研究——以束鹿凹陷沙河街组沙三下亚段砾岩储层为例 .....  
     曹晓峰, 陈朝兵, 李静, 吕宏玖, 张玉川, 谢杰, 王亮, 李云峰, 焦立芳, 朱玉双 (187)

数据自动采集在煤层气生产中的应用——以沁水盆地柿庄南区块煤层气井为例 ..... 陈慧, 郭晖 (203)

青海省聚乎更煤矿区煤系烃源岩生烃过程研究 ..... 耿庆明, 杨振宁, 牛志新, 王伟超, 张永安, 赵光通, 刘文进, 李清海, 马正文 (212)

鄂南地区旬宜区块三叠系延长组剩余压力与油气成藏关系研究 ..... 赵莹彬, 李凤勋, 曹建康, 顾超, 邢丽娟 (217)

华北克拉通北缘乌兰地区石墨矿地质特征及成因分析 ..... 李沅柏, 杨欣杰, 汪艳芸, 王磊, 李树才 (227)

青海省德令哈盆地第四系地下水质量评价 ..... 曾庆铭, 顾小凡, 杨炳超, 党学亚, 姜军, 犹香智 (239)

基于梯形模糊数的地下水源地环境健康风险评价 ..... 马海珍, 段磊, 朱世峰, 杨戈芝, 王文科, 闫姿呈, 靳博文 (248)

不同组合模型区域滑坡易发性及精度分析 ..... 王高峰, 郭宁, 邓兵, 田运涛, 叶振南, 陈宗良, 吕凤兰, 高幼龙 (259)

陕西关中富硒土壤区农作物重金属含量相关性及其安全性评价 ..... 陈继平, 钞中东, 任蕊, 罗婷, 晁旭, 张志敏, 乔新星 (273)

基于层次分析法的咸阳市多灾种自然灾害综合风险评价 ..... 冯卫, 唐亚明, 马红娜, 宿晓虹, 陈新建 (282)

\* \* \* \* \*

《西北地质》再次入选“中文核心期刊” ..... 《西北地质》编辑部 (98)

陕西毕机沟一带岩浆型钒钛磁铁矿 ..... 杨合群 (110)

青海玉树隆宝湖南侧二叠纪灰岩 ..... 杨鹏飞摄 (封面)

2021 年 第 54 卷 第 3 期 (总 221 期)

鹰峰岩体时代对柴北缘准间山地区万洞沟群时代的制约 ..... 余吉远, 李向民, 计波, 王毅智, 祁栋 (1)

新疆阿拉套山西段察哈乌苏二长花岗岩成因及构造意义 ..... 王建中, 魏立勇, 段俊, 赵军, 杨瀚文 (10)

柴北缘跃进二号地区晚新生代沉积特征及沉积相演化 .....  
     张超, 俞初安, 王善博, 程银行, 奥琮, 滕雪明, 冯平, 于航, 司丹, 高雪峰 (27)

新疆库鲁克塔格地区古生代花岗岩侵入岩全岩 Sr-Nd 和锆石 Hf 同位素地球化学特征及其意义 .....  
     刘桂萍, 郭瑞清, 魏震, 孙敏佳, 崔涛, 吴华楠, 宋志豪 (39)

东天山黄山西角闪辉长岩成因及其地质意义: 来自锆石 U-Pb 年代学及地球化学的证据 .....  
     张海迪, 陈博, 吕鹏瑞, 罗彦军, 郭伟立, 康磊, 刘生荣, 任广利 (51)

勉略构造带南侧略阳地区踏坡组物源分析: 来自碎屑锆石 U-Pb 年龄的证据 .....  
     邵嘉坤, 裴先治, 李瑞保, 李佐臣, 裴磊, 刘成军, 高峰, 陈有妍, 王盟, 赵少伟 (66)

新疆北山地区罗东镁铁-超镁铁质岩体地球化学特征及找矿潜力分析 ..... 呼冬强, 张强, 孟和 (91)

南秦岭小寨沟银矿地质特征及其构造约束 ..... 陶威, 郭岭, 李阳, 魏丽, 陈涛, 季春, 刘团峰, 王小刚 (108)

内蒙古维拉斯托锡多金属石英脉形态分带定量分析 ..... 李柱, 张德会 (121)

陕西南秦岭东阳大型钨矿床地质特征及成因探讨 ..... 段湘益, 董王仓 (131)

四川绵竹地区城墙岩磷矿床地质特征及沉积环境 ..... 黎龙昌, 张伟, 邹林, 周娟娟, 刘亮, 黎诗宏 (142)

喀喇昆仑罗布盖子大型铅锌矿成矿时代: 对甜水海-喀喇昆仑巨型铅锌矿带找矿勘查的启示 .....  
     王威, 王家鑫, 马华东, 朱炳玉, 柳献军 (155)

陕南秦岭造山带侵入岩的控矿作用及其找矿意义 ..... 朱雪丽, 董王仓, 李维成, 陈丽荣 (163)

西秦岭寨上卡林型金矿南矿段综合找矿模型及地质意义 ..... 薛仲凯, 李朋伟, 常铭, 黄豪擎 (174)

元坝气田长兴组生物礁储层特征及主控因素研究 ..... 景小燕, 张小青, 高蕾, 张明迪, 李国蓉 (188)

鄂尔多斯盆地长 7 段源储组合特征与油气成藏模式 ..... 高岗, 梁晓伟, 朱康乐, 淡卫东, 孙明亮, 尤源, 冯胜斌 (198)

高邮凹陷陈堡走滑逆断层的确定及其油气意义 ..... 王正, 吴林, 陈清华, 程祥 (206)

柴达木盆地矿泉水资源前景和开发利用条件 ..... 党学亚, 顾小凡, 曾庆铭 (213)

湖北省江汉平原重点区地下水监测网优化研究 ..... 范威, 江越潇, 李寅, 李伟, 陈志宇, 胡成 (222)

安康西部农田土壤硒形态及农作物富硒特征 .....  
     张亚丽, 张志敏, 张继军, 乔新星, 陈继平, 任蕊, 冯伟华, 余鹏涛, 姬华伟, 李傲瑞, 赵飞飞 (229)

新疆博斯腾湖鱼类肌肉肉硒含量及生物累积效应研究 ..... 刘拓, 赵禹, 白金, 梁楠, 王超, 王鹏 (236)

基于三维 GIS 的第四系古河道沉积区工程建设适宜性评价研究 ..... 杨波, 管后春, 杨潘, 侯香梦 (244)

遥感技术在新疆南部地区矿山环境调查及生态修复中的应用 ..... 强建华 (253)

基于普适型监测的多参数预警研究——以三峡库区卡门子湾滑坡为例 ..... 马娟, 赵文祎, 齐干, 刘哲儒, 邢丽莲, 叶思卿, 陈瑶 (259)

甘肃肃北县狼娃山铁矿床磁异常特征及其与成矿的关系 ..... 张琳, 张健, 沈志明 (270)

自然源地表基岩层调查技术新方法新经验——以保定地区地表基岩层调查为例 .....  
     侯红星, 张蜀冀, 鲁敏, 张中跃, 孙肖, 秦天, 王献, 张金龙, 邵兴坤, 王伟 (277)

\* \* \* \* \*

陕西九子沟岩浆型磷矿 ..... 杨合群(288)

新疆清水河侏罗纪地貌景观 ..... 郝沛摄(封面)

2021年 第54卷 第4期 (总222期)

新疆东昆仑雁头山—屏障岭一带蛇绿混杂岩带地质特征及其成因分析 ..... 鲁浩, 刘欢, 万鹏(1)

山西五台绿岩带柏枝岩组条带状铁建造(BIFs)成因及其环境意义 ..... 孙迪, 李秋根, 陈隽璐, 王宗起, 高山松, YASIN Rahim, 胡鹏月(16)

新疆北山白山地区地球化学特征及找矿远景预测 ..... 李文明, 刘拓, 孙吉明, 杨博, 谢燮, 尤敏鑫, 杜辉, 赵禹(42)

塔里木盆地西北缘二叠纪生物礁灰岩地球化学特征及其地质意义 ..... 王庆同, 王志军, 王海根, 王立志, 刘世彬, 张晓磊(49)

冈底斯带东段日多地区航木多岩体地球化学、锆石U-Pb年代学、Lu-Hf同位素特征及其地质意义 ..... 潘亮, 周斌, 鲁麟, 韩奎, 高峰, 乔新星(59)

青海省冷湖行委俄博梁地区稀有稀土元素地球化学特征及找矿潜力分析 ..... 赵娟, 马正婷, 柴云, 魏丽琼, 贾研慧, 乔建峰, 马瑛(82)

甘肃省寨上金矿床原生地球化学晕特征及其地质意义 ..... 郝迪, 孙彪, 孟菲蓉(88)

东昆仑祁漫塔格虎头崖铜多金属矿田构造应力场分析 ..... 刘渭, 杨兴科, 江万, 何虎军, 王鲲鹏, 于恒斌, 马晓鹏(100)

内蒙古哈达门沟金矿田矿床地质特征及成岩成矿模式 ..... 潘振宁, 付斌, 翟利俊, 李伟, 薛建平(113)

胶东大柳行金矿矿床特征及成因探讨 ..... 黄鑫(129)

陕西汉中蛇纹石玉的矿物学及光谱学特征研究 ..... 杨眉, 何明跃, 王峰, 吴少坤, 李前志, 张碧瑶(142)

基于模糊数学理论的煤矿地下空间开发利用适宜性评价——以白源煤矿为例 ..... 王红杰, 卞孝东, 邓晓伟, 冯乃琦, 卢邦稳(156)

旬宜地区延长组长7致密油特征与富集主控因素 ..... 侯娟, 黄帅博, 柯思, 张茹(171)

吐哈盆地小草湖凹陷东缘侏罗系煤系烃源岩埋藏史、热演化史模拟 ..... 吴瑛杰, 王帅, 何磊, 王紫笛, 聂国权(180)

内蒙古高原内流区土壤水溶盐空间变异特征及其影响因素 ..... 袁磊, 吴庭雯, 韩双宝, 张秋霞, 李甫成(192)

江汉盆地潜江凹陷盐湖浅水三角洲沉积特征与发育模式 ..... 易晶晶, 陈科霖(199)

渭北石灰岩露天采区高陡边坡破坏模式及形态优化研究 ..... 毛正君, 毕银丽, 李成, 陈建平, 孙魁, 张瑾鸽, 连海波, 刘伟(211)

泥石流风险减缓措施及经济决策——以山西吉县城北沟为例 ..... 唐亚明, 武立, 冯凡, 程波, 赵阿宁, 毕银强, 白轩, 赵宇宣(227)

关中不同类型土壤硒含量特征及其对玉米籽粒硒含量的影响 ..... 姬华伟, 任蕊, 陈继平, 张继军, 李傲瑞, 冯伟华(239)

克山病高发区土壤-农作物硒元素特征研究 ..... 赵君, 张哲寰, 穆华一, 王鑫, 梁帅(250)

西安城市地质与可持续发展研究 ..... 程波, 赵阿宁, 张新社(259)

非结构化地质数据内容存储方法研究 ..... 魏东琦, 江宝得, 张静雅(266)

天然流体包裹体均一状态下拉曼光谱研究 ..... 董会, 曹佰迪, 董敏, 王志海, 韩延兵(274)

利用MC-ICP-MS测定铁同位素方法综述 ..... 霍金晶, 韩延兵(280)

\* \* \* \* \*

甘肃省肃南县祁连山北麓白垩纪砂岩构成由北向南西的反冲褶皱构造 ..... 何世平摄(封面)

Vol. 54 No. 1 (Sum 219) 2021

Chemical Sequence Stratigraphy of the Wufeng Formation-Lower Member of Longmaxi Formation in Shuanghe Outcrop, Upper Yangtze ..... WANG Qian, HUANG Yongjian, ZHANG Zhifeng, WANG Changhong, LI Xiang(1)

Geochemistry, Zircon U-Pb Dating and Tectonic Significance of Basite in the Middle Section of Bogda Orogenic Belt, Xinjiang ..... LONG Denghong(15)

Zircon U-Pb Dating and Geochemical Characteristics of Granite Porphyry in Zhanhongshan Area, East Kunlun ..... LI Jiqing, ZHANG Xinli, WANG Tao, LI Qing, WANG Taishan, XUE Wanwen(30)

Geochemical Characteristics and Geological Significance of Late Triassic Intrusive Rocks in the Middle Reaches of Naling Guole River, Qinghai Province ..... JI Mingjia, WEI Liqiong, XU Bo, LIU Bo, BAI Hongxi, CHEN Xiaolin, LI Xiong(41)

Formation Age and Geochemical Characteristics of Supahe Granite Pluton in Longling Area, Yunnan Province: Magmatic Response to Pan-African Movement ..... YUAN Xinchun, YANG Qijun, QIN Ya, WU Yanbin, ZHENG Chaojie, XU Fang(55)

Analysis on Prospecting Effect of Geochemical Secondary Halo in Shuiquangou Area of Inner Mongolia ..... ZHANG Rong, ZHOU Wenbo, YANG Zhengyong, ZHOU Ronghui, LIU Tong, MU Haiqi(72)

Geological Characteristics and Prospecting Potential of Magmatic Ni-Cu Sulfide Deposits in Northwest China ..... ZHANG Zhaowei, QIAN Bing, WANG Yalei, LI Wenyuan(82)

Geological Features and Genesis of Vanadium Molybdenum Deposit of Black Rock Series in Northern Dabashan Area of South Qinling ..... WEN Zhiliang, ZHAO Min, LI Putao, PENG Xuan, SUN Shaozhen(100)

Mineralization Characteristics and Metallogenic Mechanism of Bashibulake Uranium-bearing Asphalt Uranium Deposit ..... LIU Zhengyi, XU Qiang, LIU Hongxu, DONG Wenming, QIN Mingkuan, LIU Jialin, ZHU Quanlong(109)

- Genesis of the Super-large Tungsten, Gold (Antimony) Polymetallic Deposit in Zhaishang, Gansu Province .....  
 ... YANG Hanwen, WANG Jianzhong, WEI Liyong, ZHAO Jun, MA Cheng, LIU Ming, SUN Biao, WEI Wenhao ( 125 )
- Characteristics and Prospecting Potential of Quartz Vein-Type Gold Deposits in Saishiteng Area, Qinghai Province  
 ..... BAO Guangpu, ZHANG Lin, ZHANG Hailong ( 139 )
- Analysis of Ore-Bearing Sedimentary Basins and Mineralization of Sedimentary Hematite in Western Hubei .....  
 ..... SI Xiaohua, LIU Lin, XIA Xunmao ( 147 )
- Origin and Distribution of Complex Water Body in Chang8 Reservoir in Huaqing Area, Northern Shaanxi .....  
 ..... DONG Mancang, YANG Shuisheng, WANG Quan, FU Guomin ( 158 )
- The Sedimentary Phase Characteristics and Evolution Rule of Chang 9 in Huanxian-Zhengning Area .....  
 ..... BAI Zhuoli, ER Chuang ( 166 )
- Hydrocarbon Accumulation Characteristics in Maosai Kibi Basin .....  
 ZHAO Hongyan, LIANG Jianshe, KONG Lingwu, ZHAO Jiaqi, CHEN Liang, FENG Xin, YU Yingmei, WANG Jia ( 179 )
- Study on the Relationship Between Groundwater and Surface Water in Xinjiang Kongque River Basin Using Isotopes and  
 Hydrochemistry method ..... ZHANG Jun, YIN Lihe, GU Xiaofan, LI Ying, YANG Bingchao,  
 JIANG Jun, JIA Wuhui, XIE Wanbing, WANG Tuo, TANG Xiaoping, DONG Jiaqiu, WANG Qian, CHANG Liang ( 185 )
- On the Occurrence Characteristics and the Estimation of Geothermal Water in Xi'an Sag, Guanzhong Basin .....  
 HUANG Jianjun, ZHOU Yang, TENG Hongquan, LIANG Xinyang, GAO Jingbo, CAO Xiaofan, XUE Shengze, CUI Yang ( 196 )
- Study on the Catastrophic Process of Rapid and Long Run-out Landslides Based on DAN-W .....  
 ..... ZHANG Yanling, CHENG Liang, YAN Jinkai, GAO Yang ( 204 )
- Study on Correlation between Loess Collapsibility and Soil Physical Property Index .....  
 ..... GUO Qianyi, WANG Youlin, XIE Wanli, SHI Wei ( 212 )
- Evaluation of Bearing Capacity of Geological Environment in Shandong Province Based on "Bearing Foundation-Bearing  
 Status-Bearing Potential" Model .....  
 ..... LI Nianchun, ZHANG Xueqiang, FEN Quanlin, XU Qiuxiao, LI Hongtao, HAO Jie, WU Di ( 222 )
- Spatial Fuzzy Assessment of Ecological Suitability for Urban Land Use Based on Local Penalty Variable Weights  
 ——A Case Study of Yan' an Baota District ..... WANG Peng, LIU Tuo, QIU Deming ( 232 )
- Study and Discussion on Standard of Selenium-rich Soil in Gansu Province .....  
 ..... LI Chunliang, LI Jiang, YANG Jing, WANG Qiaowei, YANG Jingyu ( 242 )
- Analysis on Development Modes of Mining and Industrial Towns in Northern Shaanxi Province; A National Spatial  
 Planning Perspective ..... SUN Yixiang ( 247 )
- On the Significance of Green Exploration of Solid Minerals——Taking Xinmin Green Exploration Demonstration as an  
 Example ..... DU Lin, ZENG Daoguo, LI Yang, SU Yonghu, GONG Xin, WEN Yuanyun ( 256 )

**Vol. 54 No. 2 (Sum 220) 2021**

- Geochemical Characteristics, Zircon U - Pb Dating and Geological Significance of Tianba Diabase in Sanchazi Area, Mianlue  
 Tectonic Belt of South Qinling ..... WANG Yifeng, PEI Xianzhi,  
 LI Zuochen, LI Ruibao, PEI Lei, LIU Chengjun, WANG Meng, ZHAO Shaowei, CHEN Youxin, ZHOU Hai ( 1 )
- The Forming Age and Geological Characteristics of the Metamorphic Intrusion of Hualong Rock Group in the Eastern  
 Tectonic Belt of Nanshan, Qinghai .....  
 ..... WU Shukuan, ZHANG Yuan, YANG Qi' an, WU Jinhong, HE Li, MA Guohua, LI Chunbin, DUO Gaode ( 19 )
- Zircon U - Pb Age of the Meta-rhyolite of Huangyakou Lead-zinc Deposit and Its Geological Significance in Yuzhong  
 County, Gansu Province ..... DUAN Zhongzhi, HE Shiping, JI Bo, SHI Chao, WANG Lixuan, WEI Xiaoyan ( 30 )
- Source of Metallogenic Material of Lawu Zn - Cu Polymetallic Deposit in Gangdise Metallogenic Belt, Tibet; Sulfide  
 LA - MC - ICP - MS in-situ S Isotope Constraint .....  
 ..... LING Chen, LI Guangming, ZHANG Zhi, ZHANG Linkui, CAO Huawen ( 43 )
- Source Tracer and Its Tectonic Significance of the Ordovician-Silurian Clastic Rocks in Southern Nuratau, Uzbekistan  
 ..... ZHANG Xue, WENG Kai, MA Zhongping, CAO Jifei, CHEN Bo, CAO Kai ( 55 )
- Facies Characteristics and Sedimentary Evolution Model of the 7<sup>th</sup> Member of Dameigou Formation in Yuqia Area, North  
 Qaidam Basin ..... BAI Nan, XU Shang, WANG Yuxuan, GUO Tianxu, SHI Wanzhong ( 74 )
- Petrology and Provenance Analysis of Hanjiagou Conglomerates in the Northern Margin of West Qinling .....  
 ..... ZHAO Haitao, GUO Jinjing, LIU Chongqing, XU Hehongxin ( 86 )

- Diagenesis and Its Effects on the Reservoir Property of the Triassic Jiucaiyuanzi Formation of Fudong Slope, Junggar Basin ..... YU Jingwei, JI Hancheng, SHI Yanqing, WANG Zesheng, LU Bingxiong, LI Yu, WANG Liangzhe ( 99 )
- The Rmoelectricity Property and Deep Metallogenic Forecast of Pyrite in Heilangou Gold Field of Jiaodong, Shandong Province ..... WU Jinchao, SHEN Junfeng, SHEN Yuke, LI Guowu, ZHANG Huafeng, DU Baisong, HE Zeyu, XU Kexin ( 111 )
- Lithologic Mapping and Alteration Information Extracting Based on ASTER Spectral Signature: An Example from Nianzha Gold Deposit ..... SONG Yiwei, WANG Peng, LIAN Chenqin, DAI Xuejian, WANG Bin ( 126 )
- Discussion on Geological Characteristics and Ore-controlling Factors of the Yangxie Gold Deposit in Shangluo, Shaanxi Province ..... MA Cheng, GE Zhanlin, ZHENG Yanrong, HAO Di, LI Xiaodong, WANG Yuanwei ( 137 )
- Study on the Ore-forming Fluid Characteristics and Process in Xiaoqinling Gold Deposit, Shaanxi Province ..... FENG Weihua, SHE Pengtao, PENG Hailian, WANG Mingzhi ( 149 )
- Study on Multistage Uranium Mineralization of Hongshiquan Deposit in Longshoushan Metallogenic Belt ..... WANG Gui, WANG Wei, WANG Gang, LI Tao, LIU Tao ( 157 )
- Characteristics of Host Sandbody and Its Uranium Metallogenic Potential of the Upper Member of Yimin Formation in Bei' er Depression, Hailar Basin ..... HUANG Shaohua, ZHOU Wenbo, DONG Yan, QIN Mingkuan ( 166 )
- Study on the Productivity Classification and Prediction of Thin Interbedded Reservoir in the Changjing Section of Yingdong Oilfield, Qaidam Basin ..... MA Fengchun, CHEN Xiaodong, WANG Lin, YANG Cheng, MEI Hua, TANG Li, YANG Yue, WANG Jingru, ZHOU Yan, ZHAO Weiyong, YANG Honggang, LI Zhaoliang, LIU Yao, WANG Shengxiang ( 179 )
- Study on the Main Controlling Factors of Tight Oil Accumulation in Carbonate Conglomerate ——Taking the Conglomerate Reservoir of the Lower 3<sup>rd</sup> Member of Shahejie Formation in Shulu Sag as an Example ..... CAO Xiaofeng, CHEN Zhaobing, LI Jing, LÜ Hongjiu, ZHANG Yuchuan, XIE Jie, WANG Liang, LI Yunfeng, JIAO Lifang, ZHU Yushuang ( 187 )
- Application of Automatic Data Acquisition System in Coalbed Methane Production: a Case Study of Coalbed Methane Wells of South Shizhuang Block in Qinshui Basin ..... CHEN Hui, GUO Hui ( 203 )
- Study on Hydrocarbon-Generating Process of Coal Measure Source Rock in Juhugeng Coal Mine Area of Qinghai Province ..... GENG Qingming, YANG Zhenning, NIU Zhixin, WANG Weichao, ZHANG Yong' an, ZHAO Guangtong, LIU Wenjin, LI Qinghai, MA Zhengwen ( 212 )
- Research on the Relationship between Surplus Pressure and Hydrocarbon Accumulation of Yanchang Formation in Xunyi Block, South of Ordos Basin ..... ZHAO Yingbin, LI Fengxun, CAO Jiankang, GU Chao, XING Lijuan ( 217 )
- Discussion on Genetic Types and Prospecting Markers of Graphite Deposits in Ulan Area of Inner Mongolia ..... LI Yuanbai, YANG Xinjie, WANG Yanyun, WANG Lei, LI Shucui ( 227 )
- The Quaternary Groundwater Quality Evaluation of Delingha Basin in Qinghai Province ..... ZENG Qingming, GU Xiaofan, YANG Bingchao, DANG Xueya, JIANG Jun, YOU Xiangzhi ( 239 )
- Assessment of the Environmental Risk of Groundwater Source Based on Trapezoidal Fuzzy Number ..... MA Haizhen, DUAN Lei, ZHU Shifeng, YANG Gezhi, WANG Wenke, YAN Zicheng, JIN Bowen ( 248 )
- Analysis of Landslide Susceptibility and Accuracy in Different Combination Models ..... WANG Gaofeng, GUO Ning, DENG Bing, TIAN Yuntao, YE Zhennan, CHEN Zongliang, LÜ Fenglan, GAO Youlong ( 259 )
- Correlation and Safety Evaluation of Crop Heavy Metal Content in Shaanxi Guanzhong Selenium-enriched Areas ..... CHEN Jiping, CHAO Zhongdong, REN Rui, LUO Ting, CHAO Xu, ZHANG Zhimin, QIAO Xinxing ( 273 )
- Comprehensive Risk Assessment of Multi-hazard Natural Disasters in Xianyang City Based on AHP ..... FENG Wei, TANG Yaming, MA Hongna, SU Xiaohong, CHEN Xinjian ( 282 )

**Vol. 54 No. 3 (Sum 221) 2021**

- Constraints of the Age of Yingfeng Rock Mass on the Age of Wandonggou Group in Tanjianshan Area of the Northern Margin of Qaidam ..... YU Jiyuan, LI Xiangmin, JI Bo, WANG Yizhi, QI Dong ( 1 )
- Genesis and Tectonic Significance of the Chahawusu Monzonitic Granite in the Western Section of the Alataw Mountain, Xinjiang ..... WANG Jianzhong, WEI Liyong, DUAN Jun, ZHAO Jun, YANG Hanwen ( 10 )
- Late Cenozoic Sedimentary Characteristics and Sedimentary Facies Evolution in Yuejin 2 Area of Northwest Qaidam..... ZHANG Chao, YU Reng'an, WANG Shanbo, CHENG Yinhang, AO Cong, TENG Xueming, FENG Ping, YU Hang, SI Dan, GAO Xuefeng ( 27 )
- Geochemical Characteristics and Significance of the Whole Rock Sr - Nd and Zircon Hf Isotopic in the Paleozoic Granite-

plutons in Kuruktag, Xinjiang .....	LIU Guiqing, GUO Ruiqing, WEI Zhen, SUN Minjia, CUI Tao, WU Huanan, SONG Zhihao ( 39 )
The Petrogenesis and Geological Significance of the Hornblende Gabbro in Western Huangshan of East Tianshan; Evidence from Zircon U - Pb Chronology and Geochemistry .....	ZHANG Haidi, CHEN Bo, LÜ Pengrui, LUO Yanjun, GUO Weili, KANG Lei, LIU Shengrong, REN Guangli ( 51 )
Provenance of the Tapo Formation in Lueyang Area; Evidence from Detrital Zircons LA - ICP - MS U - Pb Geochronology .....	SHAO Jiakun, PEI Xianzhi, LI Ruibao, LI Zuochen, PEI Lei, LIU Chenjun, GAO Feng, CHEN Youxin, WANG Meng, ZHAO Shaowei ( 66 )
Analysis on Geochemical Characteristics and Prospecting Potentials of Luodong Mafic-ultramafic Intrusion in Beishan, Xinjiang .....	HU Dongqiang, ZHANG Qiang, MENG He ( 91 )
The Geological Characteristics and Structural Constraints of Xiaozhaigou Silver Deposit in South Qinling .....	TAO Wei, GUO Ling, LI Yang, WEI Li, CHEN Tao, JI Chun, LIU Tuanfeng, WANG Xiaogang ( 108 )
Quantitative Analysis of Morphological Zonations of Quartz Veins in Weilasituo Sn - polymetallic Deposit, Inner Mongolia .....	LI Zhu, ZHANG Dehui ( 121 )
Geological Characteristics and Genesis of Dongyang Large Tungsten Deposit in South Qinling, Shaanxi Province .....	DUAN Xiangyi, DONG Wangcang ( 131 )
Geological Characteristics and Sedimentary Environment of Chengqiangyan Phosphate Deposit in Mianzhu Area, Sichuan Province .....	LI Longchang, ZHANG Wei, ZOU Lin, ZHOU Juanjiao, LIU Liang, LI Shihong ( 142 )
Mineralization Age of the Karakorum Luobugaizi Large Lead-zinc Deposit: The Implication on Exploration of Tianshuihai-Karakorum Super-large Lead-zinc Deposits .....	WANG Wei, WANG Jiabin, MA Huadong, ZHU Bingyu, LIU Xianjun ( 155 )
Ore-controlling Factors and Prospecting Significance of Intrusive Rocks in South Shaanxi Qinling Orogenic Belt .....	ZHU Xueli, DONG Wangcang, LI Weicheng, CHEN Lirong ( 163 )
Comprehensive Prospecting Model and the Geological Significance for Zhaishang Carlin-Type Gold Deposit in West Qinling .....	XUE Zhongkai, LI Pengwei, CHANG Ming, HUANG Haoqing ( 174 )
Research on the Reservoir Characteristics and Controlling Factors of the Changxing Formation Reef in Yuanba Gas Field of Sichuan Basin, China .....	JING Xiaoyan, ZHANG Xiaoqing, GAO Lei, ZHANG Mingdi, LI Guorong ( 188 )
Characteristics of Source-reservoir Assemblage and Hydrocarbon Accumulation Model of Chang 7 Member in Ordos Basin .....	GAO Gang, LIANG Xiaowei, ZHU Kangle, DAN Weidong, SUN Mingliang, YOU Yuan, FENG Shengbin ( 198 )
Study on the Determination of the Chenbao Strike-Thrust Fault in Gaoyou Sag and Its Petroleum Significance .....	WANG Zheng, WU Lin, CHEN Qinghua, CHENG Xiang ( 206 )
Prospect, Development and Utilization of the Mineral Water Resources in Qaidam Basin .....	DANG Xueya, GU Xiaofan, ZENG Qingming ( 213 )
Study on the Optimization of Groundwater Monitoring Network in Key Areas of Jiangnan Plain in Hubei Province .....	FAN Wei, JIANG Yuexiao, LI Yin, LI Wei, CHEN Zhiyu, HU Cheng ( 222 )
Soil Selenium Speciation in Cropland of Western Ankang and the Characteristics of Crop Selenium Enrichment .....	ZHANG Yali, ZHANG Zhimin, ZHANG Jijun, QIAO Xinxing, CHEN Jiping, REN Rui, FENG Weihua, SHE Pengtao, JI Huawei, LI Aorui, ZHAO Feifei ( 229 )
Study on the Content of Selenium in Fish Muscles and the Bioaccumulation Effect in Bosten Lake, Xinjiang .....	LIU Tuo, ZHAO Yu, BAI Jin, LIANG Nan, WANG Chao, WANG Peng ( 236 )
Research on 3D GIS-Based Suitability Evaluation of Engineering Construction of the Quaternary Paleo-channel Sedimentary Area .....	YANG Bo, GUAN Houchun, YANG Pan, HOU Xiangmeng ( 244 )
Application of Remote Sensing Techniques in Mine Environment Investigation and Ecological Restoration in southern Xinjiang .....	QIANG Jianhua ( 253 )
Study on the Multi-parameter Early Warning Based on Universal Equipment: A Case of Kamenziwan Landslide in the Three Gorges Reservoir .....	MA Juan, ZHAO Wenyi, QI Gan, LIU Zheru, XING Gulian, YE Siqing, CHEN Yao ( 259 )
Magnetic Anomaly Characteristics of Gansu Langwashan Iron Deposit and the Relationship with Mineralization .....	ZHANG Lin, ZHANG Jian, SHEN Zhiming ( 270 )
Technology and Method of the Ground Substrate Layer Survey of Natural Resources: Taking Baoding Area as an Example .....	HOU Hongxing, ZHANG Shuji, LU Min, ZHANG Zhongyue, SUN Xiao, QIN Tian, WANG Xian, ZHANG Jinlong, SHAO Xingkun, WANG Wei ( 277 )

## Vol. 54 No. 4 (Sum 222) 2021

- Geological Characteristics and Genesis Analysis of Ophiolitic Melange Belt in Yantoushan-Pingzhangling Area of East Kunlun, Xinjiang ..... LU Hao, LIU Huan, WAN Peng ( 1 )
- The Origin and Environmental Significance of Banded Iron Formations in the Baizhiyan Formation of Wutai Greenstone Belt, Shaanxi Province ..... SUN Di, LI Qiugen, CHEN Junlu, WANG Zongqi, GAO Shansong, YASIN Rahim, HU Pengyue ( 16 )
- Geochemical Characteristics and Prospecting Prognosis in Baishan Area of Xinjiang Beishan ..... LI Wenming, LIU Tuo, SUN Jiming, YANG Bo, XIE Xie, YOU Minxin, DU Hui, ZHAO Yu ( 42 )
- Geochemical Characteristics and Geological Significance of Permian Reef Limestone in the Northwest of Tarim Basin ..... WANG Qingtong, WANG Zhijun, WANG Haigen, WANG Lizhi, LIU Shibin, ZHANG Xiaolei ( 49 )
- Geochemistry, Zircon U - Pb Chronology, Lu - Hf Isotopic Compositions and Geological Significance of the Hangmuduo Granite in Riduo Area of Eastern Gangdise Belt ..... PAN Liang, ZHOU Bin, LU Lin, HAN Kui, GAO Feng, QIAO Xinxing ( 59 )
- Geochemical Characteristics and Prospecting Potential of Rare Rare-earth Element in Eboliang Area, Lenghu, Qinghai Province ..... ZHAO Juan, MA Zhengting, CHAI Yun, WEI liqiong, JIA Yanhui, QIAO Jianfeng, MA Ying ( 82 )
- The Primary Halo Research of Zhaishang Gold Deposit in Gansu Province ... HAO Di, SUN Biao, MENG Feirong ( 88 )
- Analysis of the Tectonic Stress Field in Hutouya Copper Polymetallic Ore Field, Qimantage of East Kunlun ..... LIU Wei, YANG Xingke, JIANG Wan, HE Hujun, WANG Kumpeng, YU Hengbin, MA Xiaopeng ( 100 )
- Geological Features of Ore Deposit and Diagenetic and Metallogenic Model of the Hadamengou Gold Ore Field in Inner Mongolia ..... PAN Zhenning, FU Bin, ZHAI Lijun, LI Wei, XUE Jianping ( 113 )
- Discussion on the Characteristics and Genesis of the Daliuhang Gold Deposit in Jiaodong ..... HUANG Xin ( 129 )
- Mineralogical and Spectral Studies on the Serpentine Jade in Hanzhong, Shaanxi Province ..... YANG Mei, HE Mingyue, WANG Feng, WU Shaokun, LI Qianzhi, ZHANG Biyao ( 142 )
- Suitability Evaluation of Underground Space Development and Utilization of Coal Mine Based on Fuzzy Mathematics Theory ——Taking Baiyuan Coal Mine as an Example ..... WANG Hongjie, BIAN Xiaodong, DENG Xiaowei, FENG Naiqi, LU Bangwen ( 156 )
- Characteristics and Main Enrichment Controlling Factors of Chang 7 Tight Oil in Xunyi-Yijun area, Ordos Basin ... HOU Juan, HUANG Shuai, KE Si, ZHANG Ru ( 171 )
- Research on the Burial History and the Thermal Evolution History of the Jurassic Coal - Measure Source Rocks in the Eastern Margin of Xiaocaoahu Sag ..... WU Yanjie, WANG Shuai, HE Lei, WANG Zidi, NIE Guoquan ( 180 )
- Spatial Variability and Influencing Factors of Soil Water - Soluble Salt in Inner Mongolia Plateau ..... YUAN Lei, WU Tingwen, HAN Shuangbao, ZHANG Qiuxia, LI Fucheng ( 192 )
- Sedimentary Characteristics and Development Model of Shallow-water Delta of Salt Lake in Qianjiang Depression ..... YI Jingjing, CHEN Kefei ( 199 )
- Study on Failure Mode and Shape Optimization of High and Steep Slope of Open - Pit Limestone Mining Area in Weibei ..... MAO Zhengjun, BI Yinli, LI Cheng, CHEN Jianping, SUN Kui, ZHANG Jing, LIAN Haibo, LIU Wei ( 211 )
- Risk Mitigation Measures and Economic Decisions on Debris Flow—Taking Beigou of Jixian County, Shanxi Province as an Example ..... TANG Yaming, WU Li, FENG Fan, CHENG Bo, ZHAO Aning, BI Yinqiang, BAI Xuan, ZHAO Yuxuan ( 227 )
- Characteristics of Selenium Content in Different Soil Types in Guanzhong and Its Influence on Selenium Content of Corn Grain ..... JI Huawei, REN Rui, CHEN Jiping, ZHANG Jijun, LI Aorui, FENG Weihua ( 239 )
- Study on Selenium in Soil and Crops in the High Incidence Areas of Keshan Disease ..... ZHAO Jun, ZHANG Zhehuan, MU Huayi, WANG Xin, LIANG Shuai ( 250 )
- Study on Xi'an City Geology and Sustainable Development ..... CHENG Bo, ZHAO Aning, ZHANG Xinshe ( 259 )
- Research on Content Storage Method of Unstructured Geological Data ..... WEI Dongqi, JIANG Baode, ZHANG Jingya ( 266 )
- Study on the Raman Spectra of Natural Fluid Inclusions Under Uniform State ..... DONG Hui, CAO Baidi, DONG Min, WANG Zhihai, HAN Yanbing ( 274 )
- A Review of MC - ICP - MS Fe Isotope Analytical Methods ..... HUO Jinjing, HAN Yanbing ( 280 )