



# 中国地质

## GEOLOGY IN CHINA

ISSN 1000-3657

CN 11-1167/P

CODEN ZDHIAH

# 2021

第48卷第1期

Vol.48 No.1

## 特别关注

### 中国地质调查局——中国地质调查科技创新成果集锦

近40年黄河流域资源环境格局变化分析与地质工作建议

中国地震滑坡危险性评估及其对国土空间规划的影响研究

古潜山热储开发对地面沉降的影响机制研究

基于地质大数据的中国锑矿空间分布规律定量研究

中国地质

2021

第四十八卷 第一期

科学出版社



主管 中国地质调查局  
主办 中国地质调查局  
中国地质科学院

2021年2月出版

科学出版社

万方数据

# 中国地质(双月刊)

(ZHONGGUO DIZHI)

2021年02月第48卷第1期(总第402期)

## 目次

### 特别关注

- 近40年黄河流域资源环境格局变化分析与地质工作建议  
..... 王尧,陈睿山,郭迟辉,夏子龙(1)
- 中国地震滑坡危险性评估及其对国土空间规划的影响研究  
..... 王涛,刘甲美,栗泽桐,辛鹏,石菊松,吴树仁(21)
- 古潜山热储开发对地面沉降的影响机制研究  
..... 马峰,王贵玲,张薇,朱喜,张汉雄,孙占学(40)

### 综述性论文

- 基于地质大数据的中国锑矿空间分布规律定量研究..... 王岩,王登红,王永磊,黄凡(52)
- 铝土矿分布特点、主要类型与勘查开发现状  
..... 张海坤,胡鹏,姜军胜,程湘,王建雄,刘江涛,向鹏(68)
- 磷矿的分布、特征与开发现状..... 吴发富,王建雄,刘江涛,曾国平,向鹏,胡鹏,向文帅(82)
- 锰矿主要类型、分布特点及开发现状..... 程湘,胡鹏,张海坤,姜军胜(102)

### 学术论文

- 南大西洋西非岸盆地群构造、沉积演化对比..... 洛怡,李江海,杨梦莲(120)
- 新疆库车西部古近系奥奇克盐底辟地质地貌特征及构造形成模式  
..... 杨梦莲,李江海,王洪浩,陶崇智,章雨(129)
- 大别山南麓阳逻组砾石层砾石形貌学研究  
..... 王节涛,裴来政,张宏鑫, N'dji dit Jacques DEMBELE(139)
- 青藏高原东北缘宗务隆韧性剪切带<sup>40</sup>Ar/<sup>39</sup>Ar年代学及对印支期造山时限的制约  
..... 高万里,王宗秀,李磊磊,钱涛,崔明明(149)
- 广州增城地质公园安山质-流纹质火山岩地球化学特征及Rb-Sr年龄测定  
..... 苏扣林,丁兴,郭宇,石晓龙(161)
- 东昆仑希望沟橄榄辉长岩的岩石成因:地球化学、锆石U-Pb年龄与Hf同位素制约  
..... 孔会磊,栗亚芝,李金超,贾群子,国显正,王宇,姚学钢(173)
- 内蒙古西部苦楚乌拉-英巴地区花岗岩锆石U-Pb定年及地球化学特征  
..... 赵闯,苏旭亮,薛斌,程东江,史兴俊,宋涛涛,张阔(189)

[期刊基本参数]CN11-1167/P\*1953\*b\*A4\*346\*zh\*P\*¥ 50.00\*2000\*22\*2021-02

本期责任编辑:王学明 李亚萍 郭慧 英文审校:冯建忠 技术编辑:王巍 黄彩霞

闽西南宣和加里东期花岗岩锆石 U-Pb 年龄、地球化学特征及对华南造山的启示 .....	王峰(207)
内蒙古克什克腾旗长岭子斜长花岗斑岩锆石 U-Pb 年龄、成因与碰撞造山作用 .....	许强伟,王玘,王志强,王成明,郑义,方京(229)
内蒙古莫古吐花岗岩年代学、地球化学与地壳伸展-减薄作用 .....	杨朝磊,邹滔,祝新友,杨尚松,蒋昊原,袁伟恒,彭伟刚,柳玉龙,马一奇(247)
内蒙古扎木廷火山岩年代学、地球化学与中生代构造体制转换 .....	李玉娟(264)
准噶尔盆地南缘西段中、上侏罗统沉积演化及控制因素分析 .....	张驰,于兴河,姚宗全,李顺利,单新,向曼,李亚龙(284)
滇东北 DD1 井五峰组—龙马溪组地层界线划分及沉积环境演变 .....	冯伟明,李嵘,赵瞻,余谦,杨瀚,谢渊,叶定南(297)
华北北部中元古界洪水庄组物源和沉积环境分析 .....	马奎,肖南,蒲钰龙,钟佳倚(309)
龙门山区北川甘溪剖面泥盆系养马坝组铁质鲕粒成因及其古环境讨论 .....	徐绪东,李凤杰,闫大伟,李春森(322)
<b>发现与进展</b>	
35 年来东北松辽平原耕地土壤全氮时空变化 .....	宋运红,刘凯,戴慧敏,张哲寰,赵君,杨佳佳,魏明辉(332)
鲁西归来庄金矿床矿化闪长玢岩锆石 U-Pb 年龄 .....	李世勇,李杰,蒋雷,宋明春,宋英昕,张英梅(334)
陕西南郑地区第一口参数井钻获牛蹄塘组页岩气 .....	李娟,王玉芳,翟刚毅,张家政(337)
贵州晴隆丁头山铅锌矿床发现硒超常富集 .....	周家喜,罗开,孙国涛(339)
陕西镇安太平沟发现类铜镍硫化物矿化 .....	王居里,张凯,刘文建,张望,胡洋,王飞,汪佩佩(341)
川宣地 1 井发现厚层海相可溶性“新型杂卤石钾盐”工业矿层 .....	张永生,郑绵平,邢恩袁, 左璠璠,彭渊,仲佳爱,桂宝玲,牛新生,苏奎,商雯君,麻乾坤,崔新宇(343)
<b>简讯与热点</b>	
中国地质调查局西南岩溶石漠化野外科学观测研究站简介 .....	(345)
中国地质调查局 中国地质科学院 2020 年度地质调查十大进展 2020 年度地质科技十大进展 .....	(封二)
《中国地质》编辑工作指导委员会、《中国地质》(中文)编辑委员会 .....	(封三)
《中国地质》(双月刊)栏目设置与稿约 .....	( I )

# GEOLOGY IN CHINA

(Bimonthly)

Feb. 2021 Vol. 48, No.1 (Serial No. 402)

## Contents

### In Focus

Changes of resource and environmental pattern of the Yellow River Basin in the past 40 years and suggestions on geological work ..... *WANG Yao, CHEN Ruishan, GUO Chihui, XIA Zilong*(1)

Seismic landslide hazard assessment of China and its impact on national territory spatial planning  
..... *WANG Tao, LIU Jiamei, LI Zetong, XIN Peng, SHI Jusong, WU Shuren*(21)

Influence mechanism of ancient buried hill geothermal development on land subsidence  
..... *MA Feng, WANG Guiling, ZHANG Wei, ZHU Xi, ZHANG Hanxiong, SUN Zhanxue*(40)

### Reviews

Quantitative research on spatial distribution of antimony deposits in China based on geological big data  
..... *WANG Yan, WANG Denghong, WANG Yonglei, HUANG Fan*(52)

Distribution, genetic types and current situation of exploration and development of bauxite resources  
..... *ZHANG Haikun, HU Peng, JIANG Junsheng, CHENG Xiang,  
WANG Jianxiong, LIU Jiangtao, XIANG Peng*(68)

Distribution, geology and development status of phosphate resources  
..... *WU Fafu, WANG Jianxiong, LIU Jiangtao, ZENG Guoping, XIANG Peng, HU Peng, XIANG Wenshuai*(82)

The main types, distribution and current development of manganese ore deposits  
..... *CHENG Xiang, HU Peng, ZHANG Haikun, JIANG Junsheng*(102)

### Research Articles

A comparative study of tectonic and sedimentary evolution of West African coastal basins in the south Atlantic Ocean region ..... *LUO Yi, LI Jianghai, YANG Menglian*(120)

Geological landform and structure formation model of the Paleogene Ochirbat salt diapir in the western Kuqa, Xinjiang ..... *YANG Menglian, LI Jianghai, WANG Honghao, TAO Chongzhi, ZHANG Yu*(129)

Morphology of gravels from the Yangluo Formation in the Southern Piedmont of Dabie Mountains  
..... *WANG Jietao, PEI Laizheng, ZHANG Hongxin, N'dji dit Jacques DEMBELE*(139)

$^{40}\text{Ar}/^{39}\text{Ar}$  laser dating of the Zongwulong ductile shear zone in northeastern Tibetan Plateau : Constraints on the time of Indosinian orogeny ..... *GAO Wanli, WANG Zongxiu, LI Leilei, QIAN Tao, CUI Mingming*(149)

Rb– Sr dating and geochemistry of andesitic– rhyolitic volcanics in the Zengcheng Geopark, Guangzhou, Guangdong Province ..... *SU Koulin, DING Xing, GUO Yu, SHI Xiaolong*(161)

Petrogenesis of Xiwanggou olivine gabbro in East Kunlun Mountains: Constraints from geochemistry, zircon U–Pb dating and Hf isotopes  
..... *KONG Huilei, LI Yazhi, LI Jinchao, JIA Qunzi, GUO Xianzheng, WANG Yu, YAO Xuegang*(173)

Zircon U–Pb dating and geochemical characteristics of the granites in Kuchuwula–Yingba area of western Inner Mongolia ..... *ZHAO Chuang, SU Xuliang, XUE Bin, CHENG Dongjiang,  
SHI Xingjun, SONG Taotao, ZHANG KUO*(189)

(Executive editors of this issue: WANG Xueming, LI Yaping, GUO Hui)

- Zircon U–Pb geochronology, geochemical characteristics and tectonic implications of Caledonian granites from the Xuanhe area, Southwestern Fujian Province ..... *WANG Feng*(207)
- Zircon U–Pb age and petrogenesis of plagiogranite porphyry in Changlingzi, Hexigten Banner, Inner Mongolia and its collision orogery ..... *XU Qiangwei, WANG Pin, WANG Zhiqiang, WANG Chengming, ZHENG Yi, FANG Jing*(229)
- Chronology and geochemistry of Mogutu granite in Inner Mongolia and its effect of crustal extension and thinning ..... *YANG Chaolei, ZOU Tao, ZHU Xinyou, YANG Shangsong, JIANG Haoyuan, YUAN Weiheng, PENG Weigang, LIU Yulong, MA Yiqi*(247)
- Geochronology and geochemistry of the volcanics in the Zamuting, Inner Mongolia and its transformation of Mesozoic tectonic system ..... *LI Yujuan*(264)
- Sedimentary evolution and controlling factors of the Middle–Upper Jurassic in the western part of the southern Junggar Basin ..... *ZHANG Chi, YU Xinghe, YAO Zongquan, LI Shunli, SHAN Xin, XIANG Man, LI Yalon*(284)
- Boundary definition of Wufeng Formation and Longmaxi Formation in well DD1 and sedimentary environment evolution of Northeastern Yunnan ..... *FENG Weiming, LI Rong, ZHAO Zhan, YU Qian, YANG Han, XIE Yuan, YE Dingnan*(297)
- Provenance and sedimentary environment of the Mesoproterozoic Honghongzhuang Formation in northern part of North China ..... *MA Kui, XIAO Nan, PU Yulong, ZHONG Jiayi*(309)
- Genesis and paleoenvironment of the iron ooids from the Ganxi prolife of the Devonian Yangmaba Formation in Beichuan County, Longmenshan Area ..... *XU Xudong, LI Fengjie, YAN Dawei, LI Chunsen*(322)
- Discoveries and Developments**
- Spatio–temporal variation of total N content in farmland soil of Songliao Plain in Northeast China during the past 35 years ..... *SONG Yunhong, LIU Kai, DAI Huimin, ZHANG Zhehuan, ZHAO Jun, YANG Jiajia, WEI Minghui*(332)
- Zircon U–Pb dating of diorite porphyrite in the Guilaizhuang gold deposit, western Shandong ..... *LI Shiyong, LI Jie, JIANG Lei, SONG Mingchun, SONG Yingxin, ZHANG Yingmei*(334)
- First drilling of shale gas within the Niutitang Formation in the Nanzheng area, Shaanxi Province ..... *LI Juan, WANG Yufang, ZHAI Gangyi, ZHANG Jiazheng*(337)
- Se extremely enriched in the Dingtoushan Pb–Zn deposit, Qinglong City, Guizhou Province, China ..... *ZHOU Jiayi, LUO Kai, SUN Guotao*(339)
- Discovery of Cu–Ni sulfide mineralization in the Taipinggou area, Zhen'an County, Shaanxi Province ..... *WANG Juli, ZHANG Kai, LIU Wenjian, ZHANG Wang, HU Yang, WANG Fei, WANG Peipei*(341)
- Discovery of thick marine soluble “new type of polyhalite potassium salt” orebody from No.1 well in the Chuanxuandi area ..... *ZHANG Yongsheng, ZHENG Mianping, XING Enyuan, ZUO Fanfan, PENG Yuan, ZHONG Jiaai, GUI Baoling, SU Kui, NIU Xinsheng, SHANG Wenjun, Ma Qiankun, CUI Xinyu*(343)
- News and Highlights**
- Introduction to the Southwest Field Scientific Observation and Research Station of Karst Rocky Desertification of China Geological Survey ..... (345)