

# 中国地质(双月刊)

(ZHONGGUO DIZHI)

2023年10月第50卷第5期(总第418期)

## 目 次

### 特别关注

#### 延安地区长7段页岩气成藏富集条件及发育模式

..... 蒲泊伶,王凤琴,王克,孙建博,李艳霞,时保宏,赵卫卫,郭小波(1285)

#### 鄂尔多斯盆地陕北地区长8致密砂岩流体包裹体特征与石油成藏

..... 邵晓州,李勇,张文选,郭懿萱,赵彦德,张晓磊,齐亚林,楚美娟(1299)

#### 银额盆地居延海坳陷钻井地层对比及对油气层时代的约束

..... 卢进才,魏建设,姜亭,王宝文,苟红光,王建强,尚亚乐,许海红(1311)

#### 柴西北缘花土沟地区新近系狮子沟组沉积特征与砂岩型铀矿关系分析

..... 张超,司庆红,俞初安,王善博,程银行,于航,冯平,石广顺,奥琮,李志丹,高雪峰(1327)

### 综述论文

#### 我国陆相页岩油勘探开发进展与发展建议

..... 包书景,葛明娜,徐兴友,郭天旭,林燕华,牟德刚,梁宏波(1343)

#### 煤系气地质调查若干问题思考与探讨 ..... 秦勇(1355)

#### 土耳其地热能产业发展对中国的启示

..... 崔俊艳,李胜涛,姚亚辉,刘东林,刘伟朋,王君照(1375)

#### 广西地热资源特征与潜力评价

..... 孙明行,王瑞湖,梁礼革,邓宾,李玉坤,刘德民,管彦武(1387)

#### 世界天然碱矿床资源分布、成矿因素及找矿远景

..... 陈振红,陈建立,王九一,陈英男,王春连,杨飞(1399)

#### 硼矿床的成因类型、分布、应用及找矿远景

..... 刘延亭,王春连,丁婷,颜开,游超,刘雪,陈振红(1414)

### 学术论文

#### 黄河流域陕西省地下水资源分布特征、影响因素及开发潜力

..... 马涛,李文莉,韩双宝,张红强,王文科,李甫成,李海学,贺旭波,赵梅梅(1432)

#### 天津某化工厂有机污染场地地下水1,2,3-三氯丙烷和苯监控自然衰减与环境修复建议

..... 李卉,钱永,韩占涛,孔祥科,张威,马丽莎,张先富,田夏(1446)

#### 渭河流域土地利用类型转换及其对生态空间格局的影响

..... 杨涛,阎晓娟,赵寒森,王鹏,朱涛,蔡浩杰,左旭刚,奚仁刚,张雨莲,王立社,吴硕(1460)

## 山西省阳泉山底河流域煤矿“老窑水”动态特征、演化机理及对娘子关泉域的环境效应

..... 赵春红, 梁永平, 王志恒, 唐春雷, 申豪勇(1471)

## 西藏班戈县冈瓦纳相冰碛岩的发现及其对北拉萨地块构造演化的启示——来自1:50000专题地质调查的新证据

..... 刘一鸣, 翟庆国, 唐跃, 胡培远, 杨宁, 李金勇(1486)

## 江西相山铀矿田两类流纹英安岩的岩浆演化特征——来自长石和黑云母化学成分证据

..... 欧阳军勇, 张树明, 张鑫, 刘龙, 夏寅初, 吴志春, 万康(1495)

## 西南天山阿沙哇义金矿床流体包裹体和H-O同位素地球化学特征与造山型金矿成因

..... 张涛, 陈正乐, 周振菊, 张文高, 张青, 潘家永, 韩凤彬, 孙岳, 冯宏业, 马骥, 杨斌(1513)

## 大兴安岭乌奴尔地区白音高老组流纹岩锆石U-Pb年龄及形成地质背景讨论

## ..... 李利阳, 张传恒, 韩瑶, 石成龙, 刘博, 刘根源(1532)

## 金沙江—红河走滑构造与富碱斑岩铜金多金属成矿作用的关系

## ..... 王建华, 李文昌, 和文言, 米云川(1542)

## 阿尔金山喀腊大湾地区堆晶辉长岩地球化学、年代学:洋壳演化证据

..... 陈柏林, 李松彬, 王永, 陈正乐, 周永贵, 郝瑞祥, 刘牧(1557)

## 鄂东南地区金井咀金矿早白垩世闪长岩Sr-Nd及锆石Hf同位素研究

## ..... 李岩, 程春, 苏绍明, 高剑峰, 黄费新, 熊映志, 张岩, 黄华(1573)

## 发现与进展

### 重庆奉节地区发现黏土型锂矿

## ..... 李福林, 段其发, 石德强, 王成刚, 李强, 吴发富, 周汉文, 程顺波(1586)

## 南秦岭镇甸盆地新发现一处具有大型远景金矿床

## ..... 孟五一, 高永宝, 魏立勇, 张振, 范堡程, 贾彬(1588)

## 湘中邵阳凹陷湘邵地1井钻获二叠系非常规气

..... 张保民, 田巍, 张国涛, 刘安, 李旭兵, 周鹏, 李培军, 苗凤彬, 李海(1590)

## 滇中安宁地区海口组鱼类化石的发现及对海西运动的约束

..... 刘军平, 莫雄, 孙载波, 胡绍斌, 曾文涛, 关奇, 王伟(1592)

## 简讯与热点

### 中国地质调查局2022年度专利分析与启示

..... 王晓丽, 宋韦剑, 王鑫, 陈杨, 张敬(1594)

### 《中国地质》继续入选“中国科技核心期刊” 核心影响因子在地质学类期刊中排名第4

..... 郭慧, 李亚萍, 郭博然(1494)

### 中国地质调查局2023年最有价值的国家发明专利集锦(一)

(封二)

### 《中国地质》第四届编辑委员会 《中国地质》被收录的40家数据库

(封三)

### 《中国地质》(双月刊)栏目设置与稿约

(I)

# GEOLOGY IN CHINA

(Bimonthly)

Oct. 2023 Vol. 50, No.5 (Serial No. 418)

## Contents

### In Focus

The enrichment conditions and model of shale gas reservoir in the Chang 7 member of Mesozoic Yanchang Formation in Yan'an, Ordos Basin ..... PU Boling, WANG Fengqin, WANG Ke, SUN Jianbo, LI Yanxia, SHI Baohong, ZHAO Weiwei, GUO Xiaobo(1285)

The fluid inclusion characteristics and petroleum accumulation of Chang 8 tight sandstone in northern Shaanxi, Ordos Basin ..... SHAO Xiaozhou, LI Yong, ZHANG Wenxuan, GUO Yixuan, ZHAO Yande, ZHANG Xiaolei, QI Yalin, CHU Meijuan(1299)

Stratigraphic correlation of the wells of Juyanhai depression of Yingen–Ejin Basin and age constraints on oil and gas layers ..... LU Jincai, WEI Jianshe, JIANG Ting, WANG Baowen, GOU Hongguang, WANG Jianqiang, SHANG Yale, XU Haihong(1311)

Analysis of the relationship between sedimentary characteristics and uranium deposits from the Neogene Shizigou Formation in Huatugou area, Northwest Qaidam Basin ..... ZHANG Chao, SI Qinghong, YU Reng'an, WANG Shanbo, CHENG Yinhang, YU Hang, FENG Ping, SHI Guangshun, AO Cong, LI Zhidan, GAO Xuefeng(1327)

### Reviews

Progress and development proposals in the exploration and development of continental shale oil in China ..... BAO Shujing, GE Mingna , XU Xingyou, GUO Tianxu, LIN Yanhua, MOU Degang, LIANG Hongbo(1343)

Thinking and discussion for some problems of geological survey of coal measures gas ..... QIN Yong(1355)

Development of geothermal energy industry in Türkiye and its enlightenment to China ..... CUI Junyan, LI Shengtao, YAO Yahui, LIU Donglin, LIU Weipeng, WANG Junzhao(1375)

Characteristics and potential evaluation of geothermal resources in Guangxi ..... SUN Minghang, WANG Ruihu, LIANG Lige, DENG Bin, LI Yukun, LIU Demin, GUAN Yanwu(1387)

Distribution and genesis of global Na–carbonate deposits and its prospecting potential ..... CHEN Zhenhong, CHEN Jianli, WANG Jiuyi, CHEN Yingnan, WANG Chunlian, YANG Fei(1399)

Genetic types, distribution, application and ore–searching prospects of boron deposits ..... LIU Yanting, WANG Chunlian, DING Ting, YAN Kai, YOU Chao, LIU Xue, CHEN Zhenhong(1414)

### Research Articles

Distribution characteristics, influencing factors and development potential of groundwater resources in Shaanxi Province of the Yellow River Basin ..... MA Tao, LI Wenli, HAN Shuangbao, ZHANG Hongqiang, WANG Wenke, LI Fucheng, LI Haixue, HE Xubo, ZHAO Meimei(1432)

Natural attenuation monitoring of 1,2,3–trichloropropane and benzene in the groundwater of organic pollution sites, Tianjin chemical plant and its environmental restoration suggestions ..... LI Hui, QIAN Yong, HAN Zhantao, KONG Xiangke, ZHANG Wei, MA Lisha, ZHANG Xianfu, TIAN Xia(1446)

Land use changes of Weihe River Basin and it's influence on the ecological spatial pattern ..... YANG Tao, YAN Xiaojuan, ZHAO Hansen, WANG Peng, ZHU Tao, CAI Haojie, ZUO Xugang, XI Rengang, ZHANG Yulian, WANG Lishe, WU Shuo(1460)

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

Dynamic characteristics and evolution mechanism of "goaf water" of coal mine in Shandi River Basin, Yangquan, Shanxi Province and its environmental effects on Niangziguan Spring Area

..... *ZHAO Chunhong, LIANG Yongping, WANG Zhiheng, TANG Chunlei, SHEN Haoyong*(1471)  
Identification of Gondwana tillite in the Bange County of Tibetan Plateau and its implications for the tectonic evolution of North Lhasa terrane—New evidence from the 1:50000 thematic geological survey

..... *LIU Yiming, ZHAI Qingguo, TANG Yue, HU Peiyuan, YANG Ning, LI Jinyong* (1486)  
Magmatic evolution characteristics of two types of rhyolite dacite in Xiangshan uranium ore field——Evidence from chemical composition of feldspar and biotite ..... *OUYANG Junyong, ZHANG Shuming, ZHANG Xin, LIU Long, XIA Yinchu, WU Zhichun, WAN Kang*(1495)  
Geochemical characteristics of fluid inclusions and H–O isotopes of the Ashawayi gold deposit in the Southwest Tianshan Orogen and its orogenic-type gold deposit

..... *ZHANG Tao, CHEN Zhengle, ZHOU Zhenju, ZHANG Wengao, ZHANG Qing, PAN Jiayong, HAN Fengbin, SUN Yue, FENG Hongye, MA Ji, YANG Bin*(1513)  
Zircon U–Pb age and geological background of rhyolite from Baiyingaolao Formation in Wuner area, Great Xing'an Range ..... *LI Liyang, ZHANG Chuanheng, HAN Yao, SHI Chenglong, LIU Bo, LIU Genyuan*(1532)  
Relationship between Jinshajiang–Honghe strike-slip structure and Cu–Au polymetallic mineralization of alkaline-rich porphyry ..... *WANG Jianhua, LI Wenchang, HE Wenyan, MI Yunchuan*(1542)  
Geochemistry and geochronology of cumulated gabbro from Kaladawan area, Altun Mountains, NW China: Evidence for oceanic crust evolution ..... *CHEN Bailin, LI Songbin, WANG Yong, CHEN Zhengle, ZHOU Yonggui, HAO Ruixiang, LIU Mu*(1557)

Sr–Nd and zircon Hf isotopic constraints on petrogenesis of the Early Cretaceous diorite in the Jinjingzui gold deposit, southeast Hubei Province ..... *LI Yan, CHENG Chun, SU Shaoming, GAO Jianfeng, HUANG Feixin, XIONG Yingzhi, ZHANG Yan, HUANG Hua*(1573)

## Short communication

Discovery of clay-type lithium deposit in Fengjie area, Chongqing Municipality ..... *LI Fulin, DUAN Qifa, SHI Deqiang, WANG Chenggang, LI Qiang, WU Fafu, ZHOU Hanwen, CHENG Shunbo*(1586)  
A new discovery of large prospective gold deposit in the Zhen'an–Xunyang Basin, South Qinling ..... *MENG Wuyi, GAO Yongbao, WEI Liyong, ZHANG Zhen, FAN Baocheng, JIA Bin*(1588)  
Discovery of Permian unconventional gas by drilling in the well Xiangshaodi 1, Shaoyang sag, Central Hunan Province ..... *ZHANG Baomin, TIAN Wei, ZHANG Guotao, LIU An, LI Xubing, ZHOU Peng, LI Peijun, MIAO Fengbin, LI Hai*(1590)

Discovery of the fish fossils from Haikou Formation in Anning area of central Yunnan and its constraints on Hercynian movement ..... *LIU Junping, MO Xiong, SUN Zaibo, HU Shaobin, ZENG Wentao, GUAN Qi, WANG Wei*(1592)

## News and Highlights

Patent analysis and enlightenment of China Geological Survey in 2022  
..... *WANG Xiaoli, SONG Weijian, WANG Xin, CHEN Yang, ZHANG Jing*(1594)  
*Geology in China* continuously selected as "Source Journals for Chinese Scientific and Technical Papers and Citations" and the impact factor ranking fourth among geological journals  
..... *GUO Hui, LI Yaping, GUO Boran*(1494)