

《中文核心期刊》
《中国学术期刊综合评价数据库》(CAJCED) 来源期刊
《中国科技论文统计源期刊》数据库来源期刊
《中文科技期刊数据库》来源期刊
《万方数据-数字化期刊群》入网期刊
《中国期刊全文数据库》(CJFD) 全文收录期刊
《中国学术期刊(光盘版)》入编期刊
《中文电子期刊服务资料库》(CEPS) 收录期刊
美国《化学文摘》(CA) 来源期刊
俄罗斯《文摘杂志》(PK) 来源期刊
美国《地质光盘数据库》(GeoRef) 收录期刊

物探与化探

双月刊 1979 年 2 月创刊
2022 年 12 月 第 46 卷 第 6 期

GEOPHYSICAL & GEOCHEMICAL EXPLORATION

Bimonthly, Started in 1979
Vol. 46 No. 6 Dec. , 2022

主 管 中国地质调查局
主 办 中国自然资源航空物探遥感中心
编 辑 《物探与化探》编辑部
地址:北京学院路 29 号航遥中心
邮编:100083
电话:(010) 62060192; 62060193
传真:(010) 62060193
E-mail: whbjb@sina.com
<http://www.wutanyuhuantan.com>
主 编 熊盛青
出 版 地质出版社
(北京学院路 31 号)
印 刷 北京宝隆世纪印刷有限公司
总 发 行 北京市邮政局
国外发行 中国国际图书贸易总公司
(北京 399 信箱)
国外发行代号 BM5551
订 阅 全国各地邮局
广告许可证 京海市监广登字 20210016 号

Superintended by China Geological Survey
Sponsored by China Aero Geophysical Survey and Remote Sensing Center for Natural Resources
Edited by Editorial Office of Geophysical and Geochemical Exploration
Add: 29 Xueyuan Road, Beijing 100083, China
Tel: 86-010-62060192/62060193
Fax: 86-010-62060193
E-mail: whbjb@sina.com
[Web: http://www.wutanyuhuantan.com](http://www.wutanyuhuantan.com)
Editor in Chief XIONG Sheng-Qing
Published by The Geological Publishing House
(31 Xueyuan Road, Beijing 100083, China)
Printer Beijing Baolongshiji Printing Co. Ltd.
Distributor Beijing Post Office
Abroad Distributor China International Book Trading Corporation
Subscription Handler Local Post Offices of China

地质调查·资源勘查

深部金属矿地震数据处理关键技术研究——以内蒙古查干花钼矿区为例

..... 岳航羽,王小江,王磊,陈孝强,姜春香,李培,张保卫 (1315)

长江铀矿田花岗岩与铀成矿年代学研究进展 朱卫平 (1327)

构造地球化学弱信息提取方法在黔西南卡林型金矿找矿中的应用

..... 宋威方,刘建中,吴攀,李俊海,王泽鹏,杨成富,谭亲平,王大福 (1338)

地震多属性技术组合在泸州页岩气区块构造解释中的综合应用 陈更生,谢清惠,吴建发,赵春段,徐尔斯,潘元炜 (1349)

反射地震在冀中坳陷保定凹陷精细地质结构探测中的应用 张保卫,岳航羽,谢伟,房苏,徐昊,王凯 (1359)

X 凹陷 A 构造低阻气层成因机理分析 程仁杰,孙建孟,刘建新,迟蓬,吕馨頤,胡文亮,付焱鑫,赵文兵 (1369)

安徽西湾铅锌矿含矿层位顶部原生晕特征 程培生,汪曙潮,李壮,顾大年,张建明,杜东旭 (1381)

相山铀矿田热结构特征与成矿关系——以邹家山矿床为例

..... 银涌兵,李海英,卢腾,韩飘平,孔德旭,万环环,庞文静,吴志春 (1388)

强干扰环境下铁矿导水通道精细探测研究 王荣军,周超群,崔杰,谢明星,秦壮杰 (1396)

综合物探方法在隐伏岩溶探测中的应用 张健,冯旭亮,岳想平 (1403)

兰州新区西部恐龙园区块地热地质条件分析 孙海川 (1411)

活性炭测氡法在地热勘探中的应用——以张掖—民乐盆地为例 梁雨东,任康辉,姜鑫,丁保艳,童品贤,胡沛青 (1419)

《地球化学勘查技术符号》修订内容初步探讨 孙跃,杨少平,张振宇,袁桂琴,王之峰 (1425)

方法研究·信息处理·仪器研制

基于非结构化有限元的三维井地电阻率法约束反演 王智,王程,方思南 (1431)

基于 $f-x$ 域时频非凸正则化低秩矩阵近似的共偏移距道集去噪方法 石战战,庞溯,王元君,池跃龙,周强 (1444)

宽带带岩矿石标本频谱激电测试仪采集系统研制 王飞飞,陈儒军,李生杰,申瑞杰,殷昊,刘峰海,彭鑫 (1454)

基于 NB-IoT 的宽频带岩矿石标本频谱激电响应测试仪测控软件研发 侯胜蓝,陈儒军,王子辉,刘志同,刘璠 (1463)

基于改进相移法的煤田地震瑞利波资料处理 李欣欣,李江,刘军,沈鸿雁 (1470)

带有横向约束的全局优化波阻抗反演方法及应用 朱剑兵,高照奇,田亚军,梁兴城 (1477)

基于深度加权的三维地震斜率层析成像 田坤,王常波,刘立彬,张建中 (1485)

白云岩声电各向异性实验测量及分析 唐军,刘沁园,赖强,吴煜宇,许巍 (1492)

碳储深孔超声成像测井系统设计与应用 张建伟,杨卓静,王新杰,李胜涛,赵玉军 (1500)

航空重力梯度仪实时重力梯度解调方法 钱学武,赵立业,尹航 (1507)

基于格林函数的层间多次波预测 徐强,徐爽,王炜,王海昆 (1512)

基于地磁坐标的多地磁台站日变改正方法 高姗,王文博,崔志伟,张琦洁,闫红雨,高维 (1518)

基于 Android 平台的 192 道自然电位监测仪测控软件开发 刘志同,陈儒军,崔益安,王小杰,王子辉,刘璠 (1523)

便携式三分量磁场测量模块 王旭,陈凯,芦勇健,尹曜田 (1528)

基于 GOCAD 软件的多源地质勘探数据接口开发 汪文刚,李凯 (1534)

等值反磁通瞬变电磁法天线零磁通面位置的确定方法 亓庆新,席振铢,徐昱,木仁 (1540)

生态环境调查

皖北潮土与砂姜黑土锌含量分布及影响因素 李朋飞,管后春,王翔,陈岩滨,王耀,吴衡,史春鸿 (1545)

黑龙江双阳河流域土壤—水稻—人体系统锗的分布特征、迁移转化及影响因素

..... 梁帅,戴慧敏,赵君,刘国栋,刘凯,翟富荣,韩晓萌,魏明辉,张哲寰 (1555)

人类活动对江汉平原地区土地质量的影响——以洪湖市为例 郑雄伟,陶梦琼,张芷宜,查亚,王亚风,张响荣 (1565)

新疆若羌县农用地表层土壤硒氟碘地球化学特征 马常莲,周金龙,曾妍妍,任贵兵,王松涛 (1573)

本期责编: 王萌 英文编辑: 杨海英 封面照片提供: 刘志强**期刊基本参数: CN11-1906/P * 1979 * b * A4 * 266 * zh * P * ¥45.00 * 1400 * 33 * 2022-12**

CONTENTS

Key techniques for seismic data processing of deep metal deposits: A case study of the Chaganhua molybdenum orefield in Inner Mongolia	YUE Hang-Yu, WANG Xiao-Jiang, WANG Lei, CHEN Xiao-Qiang, JIANG Chun-Xiang, LI Pei, ZHANG Bao-Wei	(1315)
Chronological study advances of the granites and uranium mineralization in the Changjiang uranium ore field	ZHU Wei-Ping	(1327)
A successful application of the tectono-geochemistry weak information extraction method in the prospecting of Carlin-type gold deposits in southwestern Guizhou Province	SONG Wei-Fang, LIU Jian-Zhong, WU Pan, LI Jun-Hai, WANG Ze-Peng, YANG Cheng-Fu, TAN Qin-Ping, WANG Da-Fu	(1338)
Comprehensive application of the seismic multi-attribute technique combination in the tectonic interpretation of the Luzhou shale gas block	CHEN Geng-Sheng, XIE Qing-Hui, WU Jian-Fa, ZHAO Chun-Duan, XU Er-Si, PAN Yuan-Wei	(1349)
Application of the seismic reflection method in detecting the fine-scale geological structure of the Baoding sag, Jizhong depression	ZHANG Bao-Wei, YUE Hang-Yu, XIE Wei, FANG Su, XU Hao, WANG Kai	(1359)
Genetic mechanisms of low-resistivity gas zones in structure A of sag X	CHENG Ren-Jie, SUN Jian-Meng, LIU Jian-Xin, CHI Peng, Lyu Xin-Di, HU Wen-Liang, FU Yan-Xin, ZHAO Wen-BING	(1369)
Primary halo characteristics on the top of the ore-bearing horizon in the Xiwan lead-zinc deposit in Anhui Province	CHENG Pei-Sheng, WANG Shu-Chao, LI Zhuang, GU Da-Nian, ZHANG Jian-Ming, DU Dong-Xu	(1381)
Relationships between thermal structure characteristics and mineralization of the Xiangshan uranium ore field: A case study of the Zoujiashan deposit	YIN Yong-Bing, LI Hai-Ying, LU Teng, HAN Piao-Ping, KONG De-Xu, WAN Huan-Huan, PANG Wen-Jing, WU Zhi-Chun	(1388)
Fine detection of water-conducting channels in iron mine under strong interferences	WANG Rong-Jun, ZHOU Chao-Qun, CUI Jie, XIE Ming-Xing, QIN Zhuang-Jie	(1396)
Application of comprehensive geophysical prospecting method in detecting concealed karst collapses	ZHANG Jian, FENG Xu-Liang, YUE Xiang-Ping	(1403)
Geothermal geological conditions of the Western Dinosaur Park block in the Lanzhou New area	SUN Hai-Chuan	(1411)
Application of the activated charcoal radon measurement in the geothermal exploration: A study of the Zhangye-Minle basin	LIANG Yu-Dong, REN Kang-Hui, JIANG Xin, DING Bao-Yan, TONG Pin-Xian, HU Pei-Qing	(1419)
Preliminary exploration into the revision of the Technical Symbols for Geochemical Exploration	SUN Yue, YANG Shao-Ping, ZHANG Zhen-Yu, YUAN Gui-Qin, WANG Zhi-Feng	(1425)
Constraint inversion of three-dimensional borehole-to-surface resistivity based on unstructured finite element	WANG Zhi, WANG Cheng, FANG Si-Nan	(1431)
Random noise attenuation of common offset gathers by f-x low-rank matrix approximation with nonconvex regularization	SHI Zhan-Zhan, PANG Su, WANG Yuan-Jun, CHI Yue-Long, ZHOU Qiang	(1444)
Development of the acquisition system of a broadband spectral induced polarization testers for rock and ore samples	WANG Fei-Fei, CHEN Ru-Jun, LI Sheng-Jie, SHEN Rui-Jie, YIN Hao, LIU Feng-Hai, PENG Xin	(1454)
Development of the NB-IoT-based measurement and control software for broadband SIP response testers for rock and ore specimens	HOU Sheng-Lan, CHEN Ru-Jun, WANG Zi-Hui, LIU Zhi-Tong, LIU Jin	(1463)
Processing of the seismic Rayleigh wave data of coalfields based on the improved phase-shift method	LI Xin-Xin, LI Jiang, LIU Jun, SHEN Hong-Yan	(1470)
Globally optimized seismic impedance inversion with lateral constraints and its application	ZHU Jian-Bing, GAO Zhao-Qi, TIAN Ya-Jun, LIANG Xing-Cheng	(1477)
3D seismic slope tomography based on depth weighting	TIAN Kun, WANG Chang-Bo, LIU Li-Bin, ZHANG Jian-Zhong	(1485)
Experimental measurement and analysis of the acoustic-electrical anisotropy of dolomites	TANG Jun, LIU Qin-Yuan, LAI Qiang, WU Yu-Yu, XU Wei	(1492)
Design and application of the ultrasonic imaging logging system for deep carbonate geothermal reservoirs	ZHANG Jian-Wei, YANG Zhuo-Jing, WANG Xin-Jie, LI Sheng-Tao, ZHAO Yu-Jun	(1500)
A real-time gravity gradient demodulation method for airborne gravity gradiometers	QIAN Xue-Wu, ZHAO Li-Ye, YIN Hang	(1507)
Prediction of interbed multiples based on the Green's function	XU Qiang, XU Shuang, WANG Wei, WANG Hai-Kun	(1512)
Diurnal variation correction method for multiple geomagnetic stations based on geomagnetic coordinates	GAO Shan, WANG Wen-Bo, CUI Zhi-Wei, ZHANG Qi-Jie, YAN Hong-Yu, GAO Wei	(1518)
Development of the Android-based measurement and control software for a 192-channel spontaneous potential monitor	LIU Zhi-Tong, CHEN Ru-Jun, CUI Yi-An, WANG Xiao-Jie, WANG Zi-Hui, LIU Jin	(1523)
Portable three-component magnetic field measurement module	WANG Xu, CHEN Kai, LU Yong-Jian, YIN Yao-Tian	(1528)
Development of an interface for multi-source geological prospecting data based on GOCAD software	WANG Wen-Gang, LI Kai	(1534)
A method for determining the position of zero magnetic flux plane of antennae using the opposing-coils transient electromagnetic method	QI Qing-Xin, XI Zhen-Zhu, XU Yu, MU Ren	(1540)
The distribution and influencing factors of zinc in the fluvo-aquic soil and the lime concretion black soil in northern Anhui Province	LI Peng-Fei, GUAN Hou-Chun, WANG Xiang, Chen Yan-Bin, WANG Yao, WU Heng, SHI Chun-Hong	(1545)
Distribution characteristics, migration transformation and influencing factors of Ge in soil-rice system in Shuangyang River Basin, Heilongjiang Province	Liang Shuai, Dai Hui-Min, Zhao Jun, Liu Guo-Dong, Liu Kai, Zhai Fu-Rong, Han Xiao-Meng, Wei Ming-Hui, Zhang Zhe-Huan	(1555)
Impacts of human activities on the land quality of Jianghan Plain: A case study of Honghu City	ZHENG Xiong-Wei, TAO Meng-Jun, ZHANG Zhi-Yi, CHA Ya, WANG Ya-Feng, ZHANG Xiang-Rong	(1565)
Geochemical characteristics of selenium, fluorine, iodine in surface soil of the agricultural land in Ruqiang County, Xinjiang	MA Chang-Lian, ZHOU Jin-Long, ZENG Yan-Yan, REN Gui-Bing, WANG Song-Tao	(1573)