

MAIN CONTENTS

Applications of machine learning in mantle geochemistry research <i>ZHANG Zhou, XIA Qun-ke</i>	1
Research progress of intelligent image analysis for petrographic thin section images <i>SU Cheng, ZHU Kong-yang</i>	13
Tectonic setting and source characteristics of basaltic rocks revealed by the machine learning <i>GUO Peng</i>	26
Acceleration in molecular dynamics simulation on the transport properties of magma oceans by using the deep learning <i>LI Chun-hui, DENG Jie, ZHANG Zhou</i>	34
Applications of machine learning in the mineral structure search and mineral property prediction <i>ZHANG Yu, SONG Jian, WU Zhong-qing</i>	43
Mapping of underlying bedrock based on the stream sediment geochemical samples by applying the machine learning algorithms <i>HUANG Dong-liang, LI Man-yi, WANG Li-fang, HUAN Yu-ke, ZHANG Bao-yi</i>	61
Molecular dynamics simulation of microstructure of amino acids in the interlayer space of nontronite <i>YAO Piao, LIU Xian-dong, ZHANG Ying-chun, LU Xian-cai</i>	79
Experimental study on the morphological characteristics of celestite crystals by using hydrothermal synthesis methods <i>WANG Li, ZHOU Li, WANG Chun-yao, ZHOU Wen-ge</i>	89
Quaternary stratigraphy and sedimentary environment evolution of the Ruian Plain in Wenzhou, China revealed by cores of hole QTZ4 <i>YUAN Jing, YE Fan, WANG Yi-ming, HUANG Ji, YE Wen-rong</i>	98
Application and effectiveness analysis of the hydrocarbon-migration tracing: a case study of hydrocarbons of the Jurassic Badaowan Formation in the Baijiahai high in the Junggar Basin, China <i>QIAO Jin-qi, LIU Luo-fu, SHANG Xiao-qing, LI Bo-yi</i>	107
Discussion on the applicability of maturity parameters of naphthalene and phenanthrene series compounds: insights from the thermocompression simulation experiment of hydrocarbon generation and expulsion <i>HUANG Ling-song, DONG Ruo-jing, LIU Yu-xi, XU Yao-hui, YAN Gang, LI Yang</i>	122
Ocean-atmosphere-land changes in South China during the Cryogenic interglacial interval: evidence from element geochemistry <i>YANG Chuang, SUN Rui-yang, ZHOU Ting, XIAO Jia-fei, YIN Run-sheng</i>	135
The apatite LA-ICP-MS U-Pb dating of the Manlonggou Carlin-type gold deposit in the southeastern Yunnan, China <i>ZENG Li-chuan, YANG Chang-bi, YANG Fei-xiang, WANG Jia-sheng</i>	147
Distribution and enrichment characteristics of critical metals in the upper Permian Heshan formation in the central Guangxi <i>QIN Shun-qiao, LEI Mei-rong, LING Kun-yue, WEN Han-jie</i>	157
The 'multi-horizon' ore-hosting regularity and ore-controlling mechanism of the Maoping Ge-rich lead-zinc deposit in the northeastern Yunnan, China <i>CHENG Gong, SHI Zeng-long, HAN Run-sheng, SUN Bang-tao, WU Jian-biao, ZHONG Hua, ZHOU Gao-ming, ZHANG Yan</i>	167
Geochronology and geochemistry of the Diabase Dikes in the Tuanshanbei gold deposit, northeastern Hunan, China and their geological implications <i>ZHOU Chao, SUN Ji, TAN Shi-min, LU Wen, XIAO Rong, XIONG Yi-qu, ZHANG Xiao-qiang</i>	180
A mineralogical study on the genesis of Tafone in the Cretaceous red sandstone cliffs in the Danxiashan mountain of Guangdong Province <i>HU Jin-tao, YANG Zhi-jun, HE Wang, DU Heng-heng, ZHANG Ke, LI Hong-wei</i>	198
Genesis of the Nayongzhi lead-zinc deposit in Guizhou Province: constraints from Cd isotopes and trace elements <i>SONG Wen-rui, ZHU Chuan-wei, YANG Zhen, WU Yun-zhu, LI Qian-kun, GAO Li-sheng, ZHANG Jia-wei, ZHANG Yu-xu, FAN Hai-feng, WEN Han-jie</i>	206
Zircon U-Pb ages and geochemical characteristics of Granitoids in the Yikeguole copper-polymetallic deposit, in the eastern section of the East Kunlun and their geological significances <i>HAN Zhi-hong, XIA Chu-lin, DU Yu, LI Sheng-hu, ZHANG Wen-zhao, ZHEN Shi-kun, QUAN Chang-en</i>	215
From digital Moon to Metamoon <i>REN Man, LIU Jian-zhong, WANG Jun-tao, ZHU Kai, LEI Dan-hong, SUN Peng-ju, LI Xiong-yao</i>	233