

MAIN CONTENTS

Applications of big data and machine learning in mineralogy research

- LI Xiao-yan, ZHANG Chao 253

The use of lithogeochemical big data in studying the initiation and evolution of plate tectonics

- CHEN Qian, LIU He 267

A data science approach to study the water storage capacity in rocky planet mantles: Earth, Mars and exoplanets

- DONG Jun-jie 275

Arsenic enrichment mechanism of groundwater in the western Hetao Plain

- YAN Ya-ni, LI Hai-qing, WEN Xin-yue, XIE Wen-long, ZHANG Jun-wen, ZHAO Zhi-qi 289

Characteristics of trace elements of sulfide in the Jianwang lead-zinc deposit, Guangxi, China

- ZHOU Chuang, YANG Zhen, WANG Xin-yu, YANG Fu-qiang, LYU Chang-liang, SONG Wen-rui, WU Yun-zhu 298

Distribution and pollution characteristics of rare earth elements in riverbed sediments of lower reaches of Xiangjiang River, China

- GUO Xin-tong, PENG Bo, WU Jing, WU Si-cheng, WU Neng-qiu, DONG Ying-shuai 312

Characteristics of wall-rock alteration and element migration of the Yuanzhuding porphyry Cu-Mo deposit, Guangdong Province, China

- LIN Zhen-wen, LIANG Zhi-peng, ZHUANG Wen-ming, ZHOU Yong-zhang, NIU Jia, LI Chu-an 325

Analysis of major and trace elements in basaltic achondrite based on laser fusion

- HE Wen-zhong, LIAO Shi-yong, HSU Wei-biao 340

Geological characteristics and metallogenic age of pegmatites in the central zone of the Dangba pegmatite-type rare-metal deposit in the Ke'eryin orefield, Sichuan province

- ZHU Hui-pai, FEI Guang-chun, TAN Hua, CAI Yun-hua, CHEN Zhi-ping, LUO Xiao-long, YUAN Yan-wei, LI Tian-rui 350

Formation and risk assessment of heavy metal contamination in soil profiles of an abandoned lead smelting site in south-central China

- ZHAO Peng, XIAO Pei-wen, Muhammad ADNAN, XIAO Bao-hua, XUE Sheng-guo 360

High-efficient purification and accurate determination of K isotope using MC-ICP-MS

- CHENG Yuan-yuan, LI Guo-nai, LI Yang-zi, DENG Li, HE Mao-yong, LIU Lu-bai-yang, LUO Jia-xin, JIN Zhang-dong 369

Application of Logistic regression analysis on paleosalinity discriminant indicators

- LIN Jing-yu, CHU Qing-zhong, HAN Sen-wei, DU Jian-qiang, ZHANG Jin, LI Si-qi, MA Sheng-li, SHAO Xian-jie 380

Oxygen and sulfur isotopes of pore water sulfate and the implications on biogeochemical sulfur cycle of marine sediments

- XIE Zhi-bin, CONG Shang-gui, FENG Dong 389

Polymorphism and deformation of andalusite, kyanite and sillimanite

- LI Yuan-yuan, XU Hai-jun 402