

ISSN 1000-2383
CN 42-1874/P

EARTH SCIENCE
地球科学

Vol.47 No.6

第47卷 第6期

2022.06



中国地质大学(武汉)主办



特邀主编 许 强 李振洪

地 球 科 学

2022年6月 第47卷 第6期

目 次

川藏交通廊道重大灾害防控专辑

一种基于多源遥感的滑坡防灾技术框架及其工程应用	李振洪,张成龙,陈 博,占洁伟,丁明涛,吕 艳,李鑫泷,彭建兵(1901)
冻融及加卸荷条件下川藏交通廊道典型岩石力学特性的劣化规律	汤明高,许 强,邓文锋,陈 旭,周 剑,赵欢乐(1917)
青藏高原察达高速远程滑坡运动过程与形成机理	代欣然,赵建军,赖琪毅,万 励,陈柯宇,王杜江(1932)
川藏交通廊道黏土化蚀变岩发育特征及其对大型滑坡的促滑作用	张永双,李金秋,任三绍,吴瑞安,毕俊擘(1945)
锁固段边坡模型破坏前兆特征	朱 星,唐 垣(1957)
川藏交通廊道林波段冰川泥石流发育动态演化分析及监测预警方案	李 尧,崔一飞,李振洪,傅旭东(1969)
川藏交通廊道伯舒拉岭隧道出口斜坡雪崩活动特征及形成机理	王 栋,文 洪,杜世回,周福军,苗晓岐,凌斯祥,巫锡勇(1985)
冰碛湖溃决易发性的定量评价	余 斌,何元勋,刘 秩(1999)
基于层数自适应加权卷积神经网络的川藏交通廊道沿线滑坡易发性评价	黄武彪,丁明涛,王 栋,蒋良文,李振洪(2015)
川藏交通廊道典型工点 InSAR 监测及几何畸变精细判别	卓冠晨,戴可人,周福军,沈 月,陈 晨,许 强(2031)
基于 SBAS-InSAR 技术的成汶高速汶川段滑坡易发区选线研究	刘沛源,常 鸣,武彬彬,罗超鹏,周 超(2048)
基于星载 GNSS-R 获取川藏交通廊道沿线地表土壤湿度	胡羽丰,汪 吉,李振洪,彭建兵(2058)
隧道口顺层斜坡地震动力响应特征振动台试验	陈志荣,宋丹青,刘晓丽,王诚文,张建伟(2069)
四川康定某深埋隧道花岗岩岩爆物理模拟实验研究	严孝海,郭长宝,刘造保,王 燊,刘冬桥,刘 贵(2081)
川藏交通廊道 TBM 隧道岩石磨蚀性与物理力学指标的相关性	杜世回,杨德宏,孟祥连,范 文,张文忠,武博强,黄 勇,罗 锋,陈兴强(2094)
川藏交通廊道雅林段水文地质结构控制的水热循环及隧道热害特征	漆继红,许 模,蒋良文,杜世回,易 磊,李 潘,李 晓,利满霖(2106)
断层破碎带对川藏交通廊道通麦隧道初始地应力场影响	陈兴强(2120)
基于组合赋权和未确知测度的深埋隧道岩爆危险性评价——以川藏交通廊道桑珠岭隧道为例	周 航,廖 昕,陈仕阔,冯 涛,王志民(2130)

2019年6月17日四川长宁6.0级地震震后应力演化与余震关系	李平恩,廖 力,奉建州(2149)
土工膜岩土力学性质的温度影响试验	林 海,陈薪文,曾一帆(2165)
内蒙古维拉斯托地区高精度航磁调查与应用研究	陈思静,胡祥云,刘 双(2175)
岩石疲劳损伤及破坏前兆研究现状与展望	刘新锋,赵英群,王晓睿,于怀昌(2190)
西藏打加错银(多金属)矿床含矿岩石成因及其找矿意义	陈 浩,郑有业,余泽章,林毅斌,易建洲,蒋宗洋,田梦虎,庞 北(2199)
西藏次玛班硕斑岩铜矿蚀变—矿化样式及找矿潜力	李家桢,吴 松,林毅斌,蒋宗洋,易建洲,蒋光武,刘晓峰,华 康,次 琼,赵亚云(2219)
东天山哈尔里克地区早石炭世 A型花岗岩年代学、地球化学及地质意义	刘鸿飞,赵 浩,郭瑞禄,王国灿,廖群安(2245)
黔西滇东地区二叠纪—三叠纪之交有机碳同位素和生物地层对比	曹怡然,王 垣,缪 雪,吴 奎,吴玉样,宋海军,宋虎跃,童金南,楚道亮(2264)
青藏高原达则错沉积物有机碳同位素特征及古气候环境意义	李秀美,范宝伟,侯居峙,王明达,贺 跃(2275)
•其他•	
《地球科学》2022年7月第47卷第7期要目预告	(2080)

主编 赖旭龙 责任编辑 姚 戈

期刊基本参数: CN 42-1874/P * 1957 * m * A4 * 386 * zh * P * ¥50.00 * 1200 * 27 * 2022-06

封面照片:金沙江白格两次滑坡—堵江事件后滑坡后壁残留山体(李鑫泷提供)

EARTH SCIENCE
Vol.47 No.6 Jun. 2022

CONTENTS

Special Issue on Prevention and Mitigation of Major Geohazards along Sichuan-Tibet Transportation Corridor

- A Technical Framework of Landslide Prevention Based on Multi-Source Remote Sensing and Its Engineering Application
... *Li Zhenhong, Zhang Chenglong, Chen Bo, Zhan Jiewei, Ding Mingtao, Lü Yan, Li Xinlong, Peng Jianbing* (1901)
- Degradation Law of Mechanical Properties of Typical Rock in Sichuan-Tibet Traffic Corridor under Freeze-Thaw and Unloading Conditions *Tang Minggao, Xu Qiang, Deng Wenfeng, Chen Xu, Zhou Jian, Zhao Huanle* (1917)
- Movement Process and Formation Mechanism of Rock Avalanche in Chada, Tibet Plateau *Dai Xinran, Zhao Jianjun, Lai Qiyyi, Wan Xun, Chen Keyu, Wang Dujiang* (1932)
- Development Characteristics of Clayey Altered Rocks in the Sichuan-Tibet Traffic Corridor and Their Promotion to Large-Scale Landslides *Zhang Yongshuang, Li Jingqiu, Ren Sanshao, Wu Ruiyan, Bi Junbo* (1945)
- Failure Precursory Characteristics of Slope Model with Locked Section *Zhu Xing, Tang Yao* (1957)
- Evolution of Glacier Debris Flow and Its Monitoring System along Sichuan-Tibet Traffic Corridor *Li Yao, Cui Yifei, Li Zhenhong, Fu Xudong* (1969)
- Characteristic and Formation Mechanism of Snow Avalanches on Boshulaling Tunnel Exit Slope of Sichuan-Tibet Traffic Corridor *Wang Dong, Wen Hong, Du Shihui, Zhou Fujun, Miao Xiaoqi, Ling Sixiang, Wu Xiyong* (1985)
- Quantitative Susceptibility Assessment of Breach of Moraine-Dammed Lakes *Yu Bin, He Yuanxun, Liu Yang* (1999)
- Evaluation of Landslide Susceptibility Based on Layer Adaptive Weighted Convolutional Neural Network Model along Sichuan-Tibet Traffic Corridor *Huang Wubiao, Ding Mingtao, Wang Dong, Jiang Liangwen, Li Zhenhong* (2015)
- Monitoring Typical Construction Sites of Sichuan-Tibet Traffic Corridor by InSAR and Intensive Distortion Analysis *Zhuo Guanchen, Dai Keren, Zhou Fujun, Shen Yue, Chen Chen, Xu Qiang* (2031)
- Route Selection of Landslide Prone Area in Wenchuan Section of Chengdu-Wenchuan Expressway Based on SBAS-InSAR *Liu Peiyuan, Chang Ming, Wu Binbin, Luo Chaopeng, Zhou Chao* (2048)
- Land Surface Soil Moisture along Sichuan-Tibet Traffic Corridor Retrieved by Spaceborne Global Navigation Satellite System Reflectometry *Hu Yufeng, Wang Ji, Li Zhenhong, Peng Jianbing* (2058)
- Seismic Dynamic Response Characteristics of a Layered Slope at Tunnel Entrance Using Shaking Table Test *Chen Zhirong, Song Danqing, Liu Xiaoli, Wang Chengwen, Zhang Jianwei* (2069)
- Physical Simulation Experiment of Granite Rockburst in a Deep-Buried Tunnel in Kangding County, Sichuan Province, China *Yan Xiaohai, Guo Changbao, Liu Zaobao, Wang Yang, Liu Dongqiao, Liu Gui* (2081)
- Correlation between Rock Abrasion and Physical and Mechanical Indexes of TBM Tunnel in Sichuan-Tibet Traffic Corridor *Du Shihui, Yang Dehong, Meng Xianglian, Fan Wen, Zhang Wenzhong, Wu Boqiang, Huang Yong, Luo Feng, Chen Xingqiang* (2094)
- Characteristics of Geothermal Cycle and Tunnel Geothermal Disaster Controlled by Hydrogeological Structure in Ya'an to Linzhi Section of Sichuan-Tibet Traffic Corridor *Qi Jihong, Xu Mo, Jiang Liangwen, Du Shihui, Yi Lei, Li Xiao, Li Manlin* (2106)
- Influence of Fault Fracture Zone on Initial In-Situ Stress Field in Tongmai Tunnel of Sichuan-Tibet Traffic Corridor *Chen Xingqiang* (2120)
- Rockburst Risk Assessment of Deep Lying Tunnels Based on Combination Weight and Unascertained Measure Theory: A Case Study of Sangzhuling Tunnel on Sichuan-Tibet Traffic Corridor *Zhou Hang, Liao Xin, Chen Shikuo, Feng Tao, Wang Zhimin* (2130)
- *****
- Relationship between Stress Evolution and Aftershocks after Changning M 6.0 Earthquake in Sichuan on 17 June, 2019 *Li Ping'en, Liao Li, Feng Jianzhou* (2149)
- Experimental Study on Effect of Temperature on Geo-Mechanical Properties of Geomembrane *Lin Hai, Chen Xinwen, Zeng Yifan* (2165)
- Application Study on High Precision Aeromagnetic Survey in Weilasituo, Inner Mongolia, China *Chen Sijing, Hu Xiangyun, Liu Shuang* (2175)
- Current Status and Prospects of Research on Fatigue Damage and Failure Precursors of Rocks *Liu Xinfeng, Zhao Yingqun, Wang Xiaorui, Yu Huaichang* (2190)
- Petrogenesis and Prospecting Significance of Ore-Bearing Rocks in Dajiacuo Silver Polymetallic Deposit, Tibet *Chen Hao, Zheng Youye, Yu Zezhang, Lin Yibin, Yi Jianzhou, Jiang Zongyang, Tian Menghu, Pang Bei* (2199)
- Alteration-Mineralization Style and Prospecting Potential of Cimabanshuo Porphyry Copper Deposit in Tibet *Li Jiazen, Wu Song, Lin Yibin, Jiang Zongyang, Yi Jianzhou, Jiang Guangwu, Liu Xiaofeng, Hua Kang, Ci Qiong, Zhao Yayun* (2219)
- Geochronology, Geochemistry and Geological Implications of Early Carboniferous A-Type Granites in Harlik Area from East Tianshan *Liu Hongfei, Zhao Hao, Guo Ruilu, Wang Guocan, Liao Qun'an* (2245)
- Organic Carbon Isotopes and Biostratigraphic Corelation during Permian-Triassic Transition in Western Guizhou and Eastern Yunnan *Cao Yiran, Wang Yao, Miao Xue, Wu Kui, Wu Yuyang, Song Haijun, Song Huyue, Tong Jinman, Chu Daoliang* (2264)
- Characteristics of Compositions of Organic Matter $\delta^{13}\text{C}$ in Lake Sediments from Dagze Co in Tibetan Plateau and Its Paleoclimatic and Paleoenvironmental Significance ... *Li Xiumei, Fan Baowei, Hou Juzhi, Wang Mingda, He Yue* (2275)