

## TABLE OF CONTENTS

## 目 录

<b>微生物技术在离子吸附型矿床中开采稀土元素的研究进展</b> <b>Research Progress of Rare Earth Elements Extraction in Ion-Adsorbed Rare-Earth Deposits by Microbial Technology</b>	
毕然, 张海文, 董春放, 郭心荷, 傅旋霓, 黄海钊.....	1139
<b>新寨河流域矿井水对环境污染影响及其治理</b> <b>Impact of Mine Water on Environmental Pollution in Xinzhai River Basin and Its Treatment</b>	
常璐凡, 房银祥, 孙辉.....	1147
<b>稀土元素在农业中的应用与前景</b> <b>Applications and Prospects of Rare Earth Elements in Agriculture</b>	
张海文, 毕然, 董春放, 黄海钊.....	1157
<b>贵州地区地面辐合线触发强对流天气机理研究初探</b> <b>Preliminary Study on the Mechanism of Strong Convection Triggered by Surface Convergence Lines in Guizhou Region</b>	
陈义义, 宋媛, 罗娅.....	1164
<b>云南东川区杉木箐铜矿深部矿化特征及找矿方向</b> <b>Deep Mineralization Characteristics and Prospecting Direction of Shanmuqing Copper Mine in Dongchuan District, Yunnan Province</b>	
蒲利国, 张贤峰, 杨昌华, 姜永果, 周宇, 角文升.....	1173
<b>清平磷矿深部延伸接替工程水文地质条件暨涌(突)水危险性探讨</b> <b>Discussion on Hydrogeological Conditions and Water Inrush (Outburst) Hazard of the Deep Extension and Replacement Project of Qingping Phosphate Mine</b>	
姚毅, 何良, 石亮, 魏春吉, 谢意, 陈元喜, 贺天全, 邹德林, 周克昌, 乔喜旦, 邓志勇.....	1184
<b>基于知识图谱的公路水毁灾害研究热点及发展趋势分析</b> <b>Research Hotspots and Development Trends of Highway Flood Damage Based on Knowledge Graph</b>	
张方, 赵轲, 夏银勇, 韩延伟, 李言昂, 韩培锋, 陈代果.....	1196
<b>应用显微构造确定古差应力值的研究现状及基本方法</b> <b>Research Status and Basic Methods of Determining Paleodifferential Stress Values by Microstructures</b>	
李东任, 赵钰磊.....	1207

**成都地区臭氧污染特征及其影响因素分析**

**Analysis on the Ozone Pollution Characteristics and Its Influencing Factors in Chengdu**

朱心悦, 赵欢, 张小玲, 党莹, 康平 .....1216

**基于正演模拟的渤南北带致密砂砾岩体内幕结构解剖**

**Inside Structure Anatomy of Dense Sand Gravel Mass in North Belt of Bonan SAG  
Based on Forward Modeling**

金杰华, 魏欣伟, 王潇然, 高秋菊 .....1230