

目次

战略性关键金属超常富集技术专题

复合捕收剂与组合抑制剂对微细粒独居石与萤石浮选分离的作用机理研究 ..... 吴旭,张艳清,曹钊(1)
富锆褐煤干馏过程中锆的配分行为研究 ..... 荣令坤,崔保禄,曹钊,王建忠,孙佳磊,孙海章,李文秀,肖京昊(8)
锂云母提锂工艺及脱氟技术研究进展 ..... 杨佩东,董树豪,郭慧,韩桂洪,曹亦俊(15)
江西宜丰低品位锂云母矿中锂云母和长石的综合回收研究 ..... 杨志兆,杨思琦,谢帆欣,胡鑫,张永兵,周贺鹏,罗仙平(24)
江西宜春花岗伟晶岩型锂辉石矿中锂、钽和长石的综合回收 ..... 谢帆欣,张博远,杨思琦,杨志兆,罗仙平,周贺鹏(30)
微波辅助废旧锂电池正极材料有价金属回收技术进展 ..... 邱宏菊,郝先东,张艳琼,高磊,陈策(38)
含钴二次资源中钴的提取技术研究进展 ..... 黄艳芳,王美美,刘兵兵,孙虎,韩桂洪(45)
电解锰阳极泥中战略金属回收技术进展 ..... 王鹏星,刘兵兵,黄艳芳,孙虎,韩桂洪(53)
H2SO4 - CuSO4 - Cl- 零排放体系回收废弃铜基镀锡板表面的锡 ..... 刘梦宇,张旭,肖祥,张云彭,白鹏辉(63)
离子交换法从低品位石煤钒矿浸出液提钒工艺研究 ..... 赵笑益,程倩,王望泊,宁新霞,程文康,曹欢,康敏,王勇(69)
含钛高炉渣/绿矾协同焙烧富集金红石机理研究 ..... 刘维燥,何民宇,刘清才,张强(75)
原生金红石矿浮选药剂研究进展 ..... 肖巍,余俊甫,杨玮,龙涛,邓莎,路航(82)
某含金混合铜矿石同步浮选工艺研究 ..... 廖乾,李淮湘,解振朝,程建国(91)
新型环保捕收剂 CYL-5 对山西某铜矿浮选试验研究 ..... 赵文坡,李文凤,缪亚兵,郭灵敏(96)
新型无机活化剂 X-43 在载锆闪锌矿浮选中的应用 ..... 李加文,谢贤,李博琦,张守逊,李悦(101)
硫化铅锌矿物浮选分离研究进展 ..... 刘洋,童雄,吕晋芳,谢贤,宋强,范培强(106)
氧化铅矿浮选技术研究进展 ..... 李宇浩,施显赵,谭泽凌,黄婧,冯瑶(115)
微生物浸铜技术研究进展 ..... 张一如,张怡泽,宋翔宇(125)

矿物加工工程

镧系金属-苯甲羟肟酸有机配合物对萤石和方解石的捕收性能研究 ..... 李颖颖,张志祥,雷世梅,程雨荷,黄海威,徐诗佟,王柏清,张锋(135)
磁选一反浮选回收某铜冶炼渣选铜尾矿中的铁 ..... 李家林,严小虎(142)
贵州某高硫铝土矿工艺矿物学研究 ..... 卯松,李先海,张覃(146)
云南省某高岭土矿的工艺矿物学研究 ..... 王邦猛,丁定,杨成亮,李银,廖敏,李俊荣,管俊芳(151)

综合评述

铁尾矿综合利用研究进展 ..... 任明昊,谢贤,李博琦,胡尚军,陈桃,朱辉,童雄(155)
我国铁尾矿工艺矿物学特性及其资源化技术研究进展 ..... 刘鹏,刘磊,田馨,王印会,聂少君,韩秀丽(169)

CONTENTS IN BRIEF

Enrichment Technology of Critical Metals

Study on mechanism of composite collectors and combined inhibitors in flotation separation experiments of micro – fine monazite and fluorite ..... WU Xu, ZHANG Yanqing, CAO Zhao(1)

Study on the partition behaviors of germanium during the carbonization of germanium – rich lignite ..... RONG Lingkun, CUI Baolu, CAO Zhao, WANG Jianzhong, SUN Jialei, SUN Haizhang, LI Wenxiu, XIAO Jinghao(8)

A review of lithium extraction from lepidolite and current research development of fluorine removal ..... YANG Peidong, DONG Shuhao, GUO Hui, HAN Guihong, CAO Yijun(15)

Study on comprehensive recovery of lithium mica and feldspar from low grade lepidolite ore in Yifeng of Jiangxi ..... YANG Zhizhao, YANG Siqi, XIE Fanxin, HU Xin, ZHANG Yongbing, ZHOU Hepeng, LUO Xianping(24)

Comprehensive recovery of lithium, tantalum and feldspar from granite pegmatite spodumene ore in Yichun of Jiangxi ..... XIE Fanxin, ZHANG Boyuan, YANG Siqi, YANG Zhizhao, LUO Xianping, ZHOU Hepeng(30)

Progress in microwave – assisted recovery of valuable metals from spent lithium battery cathode materials ..... QIU Hongju, HAO Xiangdong, ZHANG Yanqiong, GAO Lei, CHEN Guo(38)

Research progress on separation and extraction of critical metal cobalt from secondary Co – containing resources ..... HUANG Yanfang, WANG Meimei, LIU Bingbing, SUN Hu, HAN Guihong(45)

Review on the strategic metals recovery from electrolytic manganese anode slime ( EMAS ) ..... WANG Pengxing, LIU Bingbing, HUANG Yanfang, SUN Hu, HAN Guihong(53)

Recovery of tin on the surface of waste copper – based tinplate by  $H_2SO_4 - CuSO_4 - Cl^-$  zero emission system ..... LIU Mengyu, ZHANG Xu, XIAO Xiang, ZHANG Yunpeng, BAI Penghui(63)

Study on vanadium extraction from leachate of low grade vanadium ore by ion exchange method ..... ZHAO Xiaoyi, CHENG Qian, WANG Wangbo, NING Xinxia, CHENG Wenkang, CAO Huan, KANG Min, WANG Yong(69)

Study on the mechanism of rutile beneficiation by roasting titanium – bearing blast furnace slag with copperas ..... LIU Weizao, HE Minyu, LIU Qingcai, ZHANG Qiang(75)

Research progress on flotation reagents of primary rutile ore ..... XIAO Wei, YU Junfu, YANG Wei, LONG Tao, DENG Sha, LU Hang(82)

Study on synchronous flotation process of a gold – bearing copper ore ..... LIAO Qian, LI Huaixiang, XIE Zhenchao, CHENG Jianguo(91)

Experimental study on flotation of a copper mine in Shanxi Province with a novel environmental collector CYL – 5 ..... ZHAO Wenpo, LI Wenfeng, MIAO Yabing, GUO Lingmin(96)

Application of a novel inorganic activator X – 43 in flotation of germanium – bearing sphalerite ..... LI Jiawen, XIE Xian, LI Boqi, ZHANG Shouxun, LI Yue(101)

Research progress on flotation separation of lead – zinc sulfide minerals ..... LIU Yang, TONG Xiong, LV Jinfang, XIE Xian, SONG Qiang, FAN Peiqiang(106)

Research progress of lead oxide flotation technology ..... LI Yuhao, SHI Xianzhao, TAN Zeling, HUANG Jing, FENG Yao(115)

Research progress in bioleaching of copper ore ..... ZHANG Yiru, ZHANG Yize, SONG Xiangyu(125)

Mineral Processing

Study on the collection properties of lanthanide metal – benzohydroxamic acid organic complexes for fluorite and calcite ..... LI Yingying, ZHANG Zhixiang, LEI Shimei, CHENG Yuhe, HUANG Haiwei, XU Shitong, WANG Baiqing, ZHANG Feng(135)

Iron recovery from tailings of the smelting slag after copper flotation with magnetic separation – reverse flotation ..... LI Jialin, YAN Xiaohu(142)

Study on process mineralogy of a high – sulfur bauxite ore in Guizhou ..... MAO Song, LI Xianhai, ZHANG Qin(146)

Study on process mineralogy of the Kaolin ore in Yunnan Province ..... WANG Bangmeng, DING Ding, YANG Chengliang, LI Yin, LIAO Min, LI Junrong, GUAN Junfang(151)

Reviews

Research progress on comprehensive utilization of iron tailings ..... REN Minghao, XIE Xian, LI Boqi, HU Shangjun, CHEN Tao, ZHU Hui, TONG Xiong(155)

Reviews of the process mineralogy characteristics and comprehensive utilization technology of iron ore tailings in China ..... LIU Peng, LIU Lei, TIAN Xin, WANG Yinwei, NIE Shaojun, HAN Xiuli(169)