

目 次

浮选基础研究专题

- Au(100) 表面亲/疏水性质的密度泛函理论研究 韦涛, 陈建华, 陈晔(1)
 表面粗糙度对水滴在方解石表面黏附的影响 朱张磊, 印万忠, 李振, 杨斌, 郭俊, 赵旭(8)
 基于密度泛函理论的铁含量对含铁闪锌矿浮选影响的研究 冯瑶, 刘小妹, 陈晔, 谭泽凌, 黄婧(15)
 钙(镁)离子在菱锌矿表面吸附的量子化学研究 吴志强, 陈晔, 李宇浩, 施显赵(21)
 高硅型异极矿硫化一胺类捕收剂浮选机理研究 许大洪, 陈晔(28)
 氧化预处理技术在铜钼硫化矿浮选分离中的研究进展 刘曙光, 彭伟军, 王伟, 吕帅, 曹亦俊(34)
 N,O,S 取代 2-巯基苯基黄铜矿捕收剂性质影响的第一性原理研究
 胡晓蓉, 罗雅婧, 陈建华, 许大洪, 全柏飞(45)
 新型羟肟酸捕收剂的合成及其对孔雀石的捕收机理研究 孙鑫, 黄凌云, 胡博, 张梅, 李亚民(52)
 钛铁矿和辉石浮选分离试验研究及抑制剂作用机理 高虎林, 刘建, 罗德强, 董文超, 于云龙, 郝佳美, 秦晓艳(61)
 苯甲羟肟酸钠与 C₁₈烷(烯)酸钠协同浮选金红石的机理研究 刘明宝, 耿西侠, 苏涛, 姚国超, 姚德亮, 李一凡(68)
 新型含硫杂环抑制剂在钼铅分离中的应用及其量子化学分析
 刘崇峻, 吴桂叶, 马艳红, 卢通, 刘慧南, 赵志强, 朱阳戈, 钟在定, 安耿, 陈丽娟(75)
 淀粉及其衍生物抑制剂在矿物浮选中的应用和作用机理研究进展 田付强, 李亚超, 曹亦俊, 范桂侠(82)
 陕北子长煤三种无机抑制剂浮选脱硫降灰研究 赵凯, 李振, 于伟, 刘莉君, 李学振, 常静, 杨超, 屈进州(89)
 超声波强化低阶煤浮选研究现状及展望 卜祥宁, 陈昱冉, 倪超, 谢广元(97)
 不同消泡剂对浮选精煤的消泡试验及其对浮选的影响 黄兰慧, 陈禹蒙, 黄伟, 吴昌宁, 翁力, 刘科(106)
 湖北某铜矿低碱度浮选工艺研究 于俊杰, 曾海鹏, 舒有顺, 黄红军(112)
 广西巴里选矿厂高硫高泥微细粒锡石矿泥浮选—离心重选新技术研究 许大洪, 蔡振波, 卢琳(118)
 一种新型钼矿床中钼的赋存状态及对选矿工艺的影响 付强, 王均, 贾木欣, 温利刚, 王清(123)
 粗颗粒浮选技术及其应用 罗亨通, 封东霞, 杨多, 张小永, 熊宇农(129)
 陕西凤县九子沟磷矿中钪、稀土赋存特征研究 王强, 宋公社, 刘凯, 王利民(138)
 某高铁型铜硫矿工艺矿物学特征及选矿试验研究 张晶, 唐鑫, 刘遍洲, 陈桃, 简胜(144)

矿物加工工程

- 还原焙烧—磁选工艺回收马拉维钛粗精矿中的钛和铁 彭程, 周迎春, 李国杰, 吉榆师, 喻连香, 汤优优(150)

冶金工程

- 硫脲—盐酸体系从稀土抛光粉废料中浸出回收稀土氧化物 翟京雨, 刘广义(158)

矿物材料

- 煤矸石酸碱一步催化法制备 SiO₂ 气凝胶

- 刘维海, 李淑敏, 武泽民, 杨波, 张德忠, 陈欢乐, 夏晨康, 尚阳, 胡博, 张鑫源, 苗洋, 高峰(165)

综合评述

- 煤矸石制备气凝胶研究进展 郝名远, 陈欢乐, 李淑敏, 胡博, 夏晨康, 尚阳, 张鑫源, 刘维海, 苗洋, 高峰(172)

CONTENTS IN BRIEF

Fundamental Research on Flotation

- Density functional theory study on hydrophilic/hydrophobic properties of Au (100) surface WEI Tao, CHEN Jianhua, CHEN Ye(1)
- Investigation on the effect of surface roughness on the adhesion of water droplets on calcite surface ZHU Zhanglei, YIN Wanzhong, LI Zhen, YANG Bin, GUO Jun, ZHAO Xu(8)
- Study on the effect of iron content on the flotation of iron – bearing sphalerite based on density functional theory FENG Yao, LIU Xiaomei, CHEN Ye, TAN Zeling, HUANG Jing(15)
- Quantum chemical study of adsorption of calcium (magnesium) ions on smithsonite surface WU Zhiqiang, CHEN Ye, LI Yuhao, SHI Xianzhao(21)
- Study on sulfide – amine flotation mechanism of hemimorphite with high content of silicon XU Dahong, CHEN Ye(28)
- Research progress of oxidation pretreatment technology in the flotation separation of copper – molybdenum sulphide minerals LIU Shuguang, PENG Weijun, WANG Wei, LV Shuai, CAO Yijun(34)
- First – principles study on the effect of N,O,S substituted 2 – mercaptophenyl collectors HU Xiaorong, LUO Yajing, CHEN Jianhua, XU Dahong, QUAN Baifei(45)
- Synthesis of a new hydroxamic acid collector and its collection mechanism for malachite SUN Xin, HUANG Lingyun, HU Bo, ZHANG Mei, LI Yaming(52)
- Experimental study on flotation separation of Ilmenite and pyroxene and action mechanism of depressants GAO Hulin, LIU Jian, LUO Deqiang, DONG Wenchao, YU Yunlong, HAO Jiamei, QIN Xiaoyan(61)
- Flotation properties of rutile using salts of benzohydroxamic and octadecenoic (octadecanoic) acids as synergistic collectors LIU Mingbao, GENG Xixia, SU Tao, YAO Guochao, YAO Deliang, LI Yifan(68)
- Application and quantum chemical analysis of novel sulfur – containing heterocyclic inhibitors in separation of molybdenite and galena LIU Chongjun, WU Guiye, Ma Yanhong, LU Tong, LIU Huinan, ZHAO Zhiqiang, ZHU Yangge, ZHONG Zaiding, AN Geng, CHEN Lijuan(75)
- Research progress in application and mechanism of starch and its derivative depressants in mineral flotation TIAN Fuqiang, LI Yachao, CAO Yijun, FAN Guixia(82)
- Research on desulfurization and ash reduction of Zichang coal from northern Shaanxi Province through three inorganic inhibitors by flotation ZHAO Kai, LI Zhen, YU Wei, LIU Lijun, LI Xuezhen, CHANG Jing, YANG Chao, QU Jinzhou(89)
- Ultrasound – assisted flotation of low – rank coal: a review of the current status BU Xiangning, CHEN Yuran, NI Chao, XIE Guangyuan(97)
- Experimental study on defoaming of flotation concentrate with different defoamers and their effect on flotation HUANG Lanhai, CHEN Yumeng, HUANG Wei, WU Changning, WENG Li, LIU Ke(106)
- Research on low alkali flotation process of a copper mine in Hubei YU Junjie, ZENG Haipeng, SHU Youshun, HUANG Hongjun(112)
- Study on flotation – centrifugal gravity separation technology for micro – fine cassiterite slime with high sulfur and mud from Bali plant In Guangxi Province XU Dahong, CAI Zhenbo, LU Lin(118)
- The study of Mo occurrence state in a new type of molybdenum deposit and its Influence on mineral processing FU Qiang, WANG Jun, JIA Muxin, WEN Ligang, WANG Qing(123)
- Coarse particle flotation technology and its application LUO Hengtong, FENG Dongxia, YANG Duo, ZHANG Xiaoyong, XIONG Yunong(129)
- Study on the occurrence state of scandium and rare earths in Jiuzigou phosphate ore, Feng County, Shaanxi Province WANG Qiang, SONG Gongshe, LIU Kai, WANG Liming(138)
- Technological mineralogical characteristics and beneficiation test of a high – Fe copper mine ZHANG Jing, TANG Xin, LIU Bianzhou, CHEN Tao, JIAN Sheng(144)

Mineral Processing

- Recovery of titanium and iron from titanium rough concentrate in Malawi by reduction roasting – magnetic separation process PENG Cheng, ZHOU Yingchun, LI Guojie, JI Yushi, YU Lianxiang, TANG Youyou(150)

Metallurgy

- The leaching technology of rare earth polishing powder waste in thiourea – hydrochloric acid system and recovery of rare earth oxides from the lixivium through oxalic acid precipitation ZHAI Jingyu, LIU Guangyi(158)

Mineral Materials

- Preparation of SiO₂ aerogel from coal gangue by one – step acid – base catalytic method LIU Weihai, LI Shuming, WU Zemin, YANG Bo, ZHANG Dezhong, CHEN Huanle, XIA Chenkang, SHANG Yang, HU Bo, ZHANG Xinyuan, MIAO Yang, GAO Feng(165)

Reviews

- Research progress on the preparation of aerogel from coal gangue HAO Mingyuan, CHEN Huanle, LI Shumin, HU Bo, XIA Chenkang, SHANG Yang, ZHANG Xinyuan, LIU Weihai, MIAO Yang, GAO Feng(172)