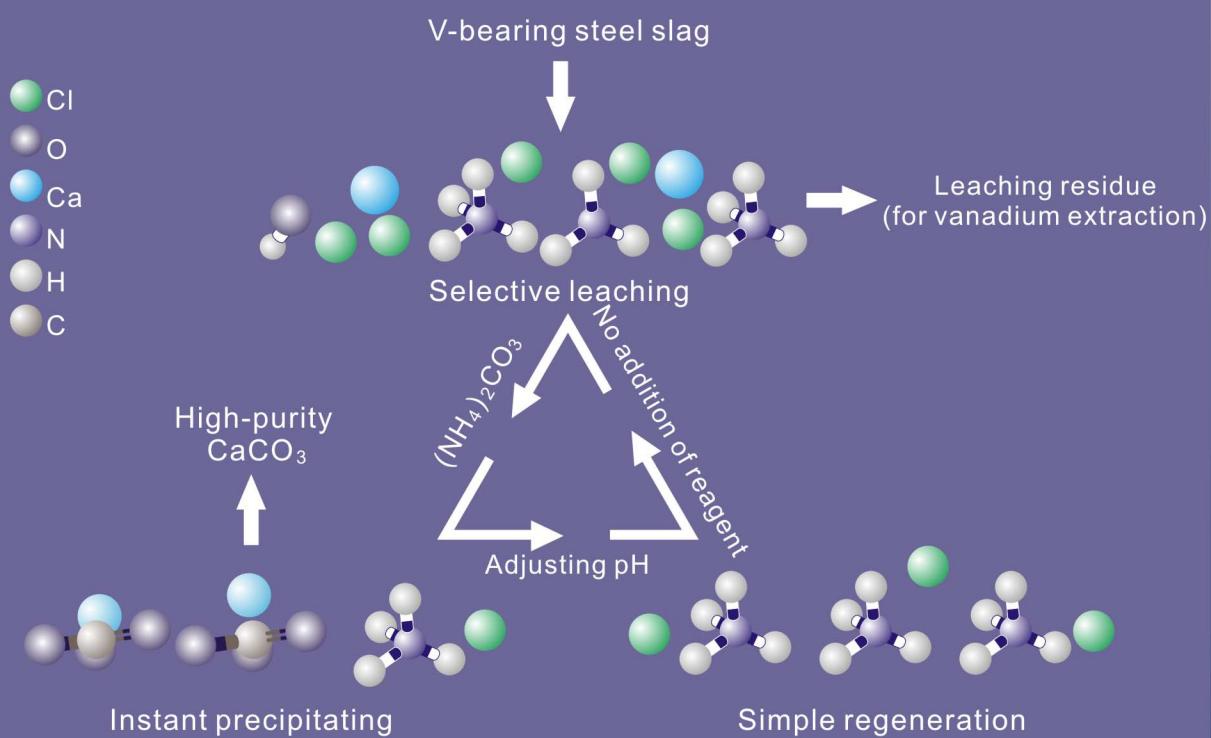


# 矿产保护与利用

## Conservation and Utilization of Mineral Resources

Purification and Recovery of Negative Component Calcium from Vanadium-bearing Steel Slag



## 目 次

### 冶 金 渣

- 含钒钢渣中负组元钙的净化与回收 ..... 叶国华,陈子杨,谢禹,左琪,张豪(1)  
矿渣胶凝固化含砷固废技术及其机理研究 ..... 李辕成,张明亮,张悦,吕东蓬,周俊,Yu Xin,祝星(7)  
有色冶炼含砷污酸处置及固砷技术进展 ..... 舒波,周尚,张宝辉,张鑫,李辕成,祝星(12)  
脱镍硅渣的理化特性及调湿与甲醛吸附性能 ..... 郑水林,吕文强(21)  
高炉冶金矿渣特性及其在 ZTA 陶瓷烧结中的作用 ..... 卢红霞,高凯,李明亮,梁新星(26)  
二次铝灰钙化煅烧提取氧化铝的试验研究 ..... 桓书星,王耀武,狄跃忠,尤晶,彭建平,洪一鸣(34)  
铜渣改性制备多孔硅酸盐负载微纳米零价铁及其去除废水中的 Cr(VI) ..... 胡美世,乐成涛,王森,张倍贤,郭江凤,余文(40)  
不同种植植物对赤泥盐离子迁移与分布的影响 ..... 岳晶晶,刘钟森,程越迈,赵雅,王骥博(46)  
选择性还原钕铁硼废料中铁的试验研究 ..... 汪金良,吴凯奇,彭如振(51)

### 尾 矿

- 碳热还原法制备铁尾矿多孔陶瓷的结构与性能 ..... 刘晓倩,周洋,刘旭峰,张永辉,李世波(56)  
铁尾矿多孔基板的制备及其在 Co<sub>3</sub>O<sub>4</sub> 纳米线合成中的应用 ..... 黄丹丹,严倩倩,薛旭阳,任钰,沈岩柏(64)  
利用铁尾矿制备微晶泡沫玻璃的热处理工艺研究 ..... 孙强强,杨文凯,李兆,南宁,崔孝炜(69)  
机械力对菱铁尾矿粒度分布及火山灰活性的影响 ..... 刘璇,崔孝炜,谢喆敏,李志刚,南宁(75)  
中国尾矿资源综合利用现状 ..... 易龙生,米宏成,吴倩,夏晋,张冰行(79)

### 煤 炭 固 废

- 粉煤灰中汞的水浸脱除研究 ..... 任坤,金生祥,王六虎,王晓辉,张劲松,何川,马淑花(85)  
粉煤灰基地质聚合物研究进展 ..... 王丽萍,徐靓,王永旺,李超(90)  
煤矸石基免烧砖制备工艺及力学性能研究 ..... 池朋,吴小文,赵海卿,毛奎,高铭达,刘艳改(95)  
我国朔州地区煤矸石的矿物学特征及煅烧组分变化研究 ..... 刘玉林,刘长森,刘岩,赵毅,谭琦(100)  
煤矸石多孔土壤与天然土壤特性对比研究 ..... 苏迪,高宏宇,廖洪强,程芳琴(106)

### 废 石 膏

- 外掺料对石膏基复合材料力学性能的影响 ..... 白明,陈畅,王宇斌(110)  
磷石膏综合利用途径及关键共性技术创新研究建议 ..... 谷守玉,苗俊艳,侯翠红,王艳语,王好斌,许秀成(115)  
磷石膏资源化利用研究进展 ..... 杜明霞,王进明,董发勤,王肇嘉,杨飞华,傅开彬,王维清(121)

### 矿 物 加 工 工 程

- 无碱等可浮工艺分选秘鲁某金铜铁多金属矿石 ..... 谭欣,肖巧斌,刘书杰(127)  
石油磺酸钠低温浮选石英型萤石的试验研究 ..... 陈浩,任子杰,高惠民,谢亚红,邢宝宝,王增仔(135)  
新型捕收剂 Y2 提高四川某铅锌硫化矿浮选指标的研究 ..... 杨延宙,吴明海,张慧婷,胡生福,翁存建,高向东(140)

### 冶 金 工 程

- 偕胺肟螯合树脂中钒的解吸和沉淀回收制备钒酸钡 ..... 蒙杰杰,何春林,周杰,戴蔚,李杰,韦悦周(147)

### 综 合 评 述

- 石墨烯在防腐涂料中的应用进展 ..... 刘秋萍,张凌燕,邱杨率,王靖,周严洪(153)  
连续玄武岩纤维生产与制品开发现状分析 ..... 王子焱,钟昊天,贾钰,司集文,朱富杰,苗世顶(161)

期刊基本参数: CN41 - 1122/TD \* 1981 \* b \* 16 \* 180 \* zh \* P \* ¥ 15.00 \* 1000 \* 28 \* 2020 - 06

封面附图说明:含钒钢渣中负组元钙的净化与回收新工艺(叶国华提供)

## **CONTENTS IN BRIEF**

### **Metallurgical Residue**

- Purification and recovery of negative component calcium from vanadium – bearing steel slag ..... Ye GH, Chen ZY, Xie Y, Zuo Q and Zhang H(1)
- Research progress on immobilization mechanism and technology of arsenic – bearing solid waste by slag cementation ..... Li YC, Zhang ML, Zhang Y, Lv DP, Zhou J, Yu X and Zhu X(7)
- Treatment of arsenic containing waste acid and development of arsenic fixation technology in nonferrous smelting ..... Shu B, Zhou S, Zhang BH, Zhang X, Li YC and Zhu X(12)
- Physicochemical properties and humidity control and formaldehyde adsorption of de – nickel silicon slag ..... Zheng SL and Lv WQ(21)
- Characteristics of blast furnace slag and its role in ZTA ceramics sintering ..... Lu HX, Gao K, Li ML and Liang XX(26)
- Experimental study on alumina extraction by calcination of secondary aluminum ash ..... Huan SX, Wang YW, Di YZ, You J, Peng JP and Hong YM(34)
- Preparation of porous silicate supported micro – nano ZVI from copper slag and its application for removing Cr (VI) from wastewater ..... Hu MS, Le CT, Wang M, Zhang BX, Guo JF and Yu W(40)
- Effects of different planting plants of soil salt ions migration and distribution in bauxite residue ..... Yue JJ, Liu ZS, Cheng YM, Zhao Y and Wang JB(46)
- Experimental research on selective reduction of iron in NdFeB scrap ..... Wang JL, Wu KQ and Peng RZ(51)

### **Tailings**

- Structure and properties of iron tailing porous ceramics prepared by carbothermal reduction method ..... Liu XQ, Zhou Y, Liu XF, Zhang YH and Li SB(56)
- Preparation of iron tailings – based porous substrate and its application in synthesis of  $\text{Co}_3\text{O}_4$  nanowires ..... Huang DD, Yan QQ, Xue XY, Ren Y and Shen YB(64)
- Research on heat treatment process of foam glass – ceramics from iron tailings ..... Sun QQ, Yang WK, Li Z, Nan N and Cui XW(69)
- Effect of mechanical force on distribution of particle size and pozzolanic reactivity of siderite tailings ..... Liu X, Cui XW, Xie ZM, Li ZG and Nan N(75)
- Present situation of comprehensive utilization of tailings resources in China ..... Yi LS, Mi HC, Wu Q, Xia J and Zhang BX(79)

### **Coal Solid Waste**

- Study on the removal of mercury from fly ash by water leaching ..... Ren K, Jin SX, Wang LH, Wang XH, Zhang JS, He C and Ma SH(85)
- Research progress of fly ash based geopolymers ..... Wang LP, Xu L, Wang YW and Li C(90)
- Preparation and mechanical properties of non – burning bricks with coal gangue as main raw materials ..... Chi P, Wu XW, Zhao HQ, Mao K, Gao MD and Liu YG(95)
- Mineralogical characteristics and calcination composition changes of coal gangue in Shuozhou area of China ..... Liu YL, Liu CM, Liu Y, Zhao Y and Tan Q(100)
- Comparative study on characteristics of coal gangue porous soil and natural soil ..... Su D, Gao HY, Liao HQ and Cheng FQ(106)

### **Waste gypsum**

- Effects of admixtures on mechanical properties of gypsum matrix composites ..... Bai M, Chen C and Wang YB(110)
- Comprehensive utilization of phosphogypsum and research suggestions on key common technology innovation ..... Gu SY, Miao JY, Hou CH, Wang YY, Wang HB and Xu XC(115)
- Research progress on resource utilization of phosphogypsum ..... Du MX, Wang JM, Dong FF, Wang ZJ, Yang FH, Fu KB and Wang WQ(121)

### **Mineral Processing**

- Separation of alkali – free Iso – flotation process on Au – Cu – Fe polymetallic ore in Peru ..... Tan X, Xiao QB and Liu SJ(127)
- Experimental study on low – temperature flotation of quartz – type fluorite with petroleum sodium sulfonate ..... Chen H, Ren ZJ, Gao HM, Xie YH and Xing BB(135)
- Study on improving beneficiation indexes for a lead and zinc sulfide ore in Sichuan by using a new collector Y2 ..... Yang YZ, Wu MH, Zhang HT, Hu SF, Weng CJ and Gao XD(140)

### **Metallurgy**

- Preparation of  $\text{Ba}_3(\text{VO}_4)_2$  by desorption and precipitation recovery of vanadium in chelating resin ..... Meng JJ, He CL, Zhou J, Dai W, Li J and Wei YZ(147)

### **Reviews**

- Application progress on graphene modified anti – corrosion coatings ..... Liu QP, Zhang LY, Qiu YS, Wang J and Zhou YH(153)
- Analysis of current status of continuous basalt fiber production and product development ..... Wang ZY, Zhong HT, Jia Y, Si JW, Zhu FJ and Miao SD(161)