

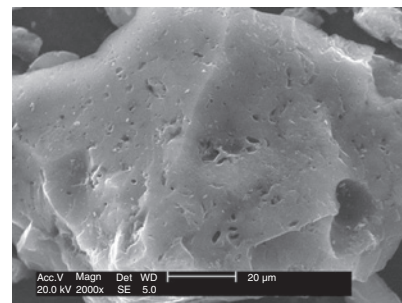
In this issue

Hongying Xia, Song Cheng, Libo Zhang and Jinhui Peng
Utilization of walnut shell as a feedstock for preparing high surface area activated carbon by microwave induced activation: Effect of activation agents

DOI 10.1515/gps-2015-0054
 Green Process Synth 2016; 5: 7–14

Original article: Activated carbon was prepared from walnut shell with different chemical activation agent using microwave heating with the highest surface area of 3276 m²/g by KOH activation.

Keywords: activation agent; high surface area activated carbon; microwave heating; walnut shell.

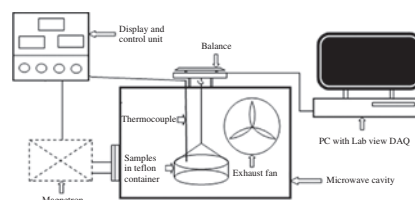


Libo Zhang, Wenqian Guo, Tu Hu, Jing Li, Jinhui Peng, Shaohua Yin, Guo Lin and Yuhang Liu
Optimization of drying ammonium tetramolybdate by microwave heating using response surface methodology

DOI 10.1515/gps-2015-0077
 Green Process Synth 2016; 5: 15–22

Original article: Optimization of drying ammonium tetramolybdate using microwave heating has been studied.

Keywords: ammonium tetramolybdate; microwave drying; response surface methodology.

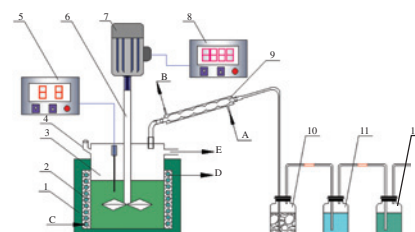


Aiyuan Ma, Libo Zhang, Jinhui Peng, Xuemei Zheng, Shiwei Li, Kun Yang and Weiheng Chen
Extraction of zinc from blast furnace dust in ammonia leaching system

DOI 10.1515/gps-2015-0051
 Green Process Synth 2016; 5: 23–30

Original article: The leaching of blast furnace dust in NH₃-(NH₄)₂SO₄-H₂O system was investigated using a single factor experiment.

Keywords: blast furnace dust; NH₃-(NH₄)₂SO₄-H₂O system; zinc recovery.

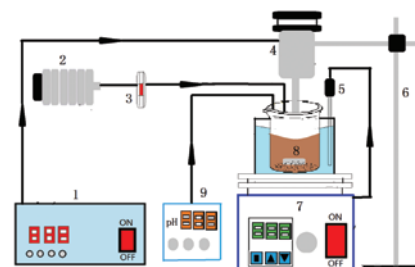


Jun Chang, Erdong Zhang, Changjiang Yang, Junwen Zhou, Jinhui Peng, Libo Zhang and Chandrasekar Srinivasakannan
Kinetics of ultrasound-assisted silver leaching from sintering dust using thiourea

DOI 10.1515/gps-2015-0042
 Green Process Synth 2016; 5: 31–40

Original article: This work attempts to use ultrasound for leaching silver from sintering dust by acidic thiourea. The effects of both major parameters and leaching kinetics were assessed.

Keywords: kinetics; silver; sintering dust; ultrasound-assisted leaching.

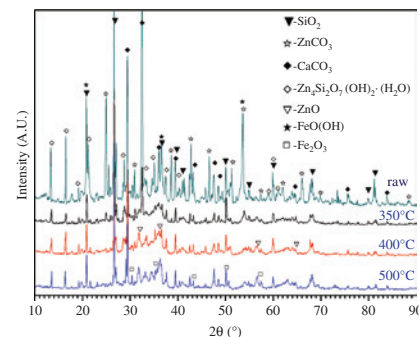


Weiheng Chen, Libo Zhang, Jinhui Peng, Shaohua Yin, Aiyuan Ma, Kun Yang, Shiwei Li and Feng Xie
Effects of roasting pretreatment on zinc leaching from complicated zinc ores

DOI 10.1515/gps-2015-0046
 Green Process Synth 2016; 5: 41–47

Original article: The effects of roasting temperatures on the zinc recovery from the complicated zinc ores were studied, and the mineral phase transformation during roasting was analyzed.

Keywords: ammonia leaching; complicated zinc ores; mineral phase transformation; roasting.

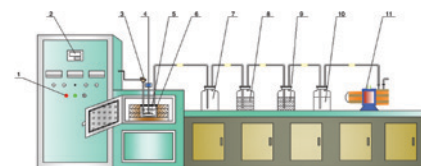


Aiyuan Ma, Xuemei Zheng, Shixing Wang, Jinhui Peng, Libo Zhang and Zhiqiang Li
Study on dechlorination kinetics from zinc oxide dust by clean metallurgy technology

DOI 10.1515/gps-2015-0041
 Green Process Synth 2016; 5: 49–58

Original article: The dielectric property and dechlorination kinetics of zinc oxide dust by microwave roasting were studied.

Keywords: dechlorination; dielectric property; kinetics; microwave roasting; zinc oxide dust.

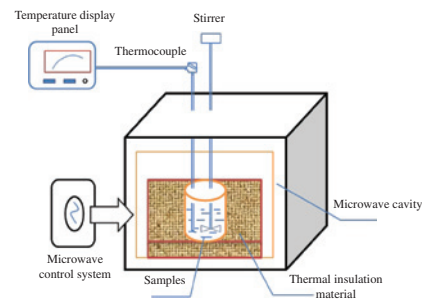


Guo Lin, Libo Zhang, Li Yang, Tu Hu and Jinhui Peng
Microwave roasting of agglomerated flux for submerged-arc welding

DOI 10.1515/gps-2015-0050
 Green Process Synth 2016; 5: 59–63

Original article: Compared with conventional roasting methods, microwave roasting has the advantage of lower temperature and shorter time.

Keywords: agglomerated flux; microwave roasting; submerged-arc welding.

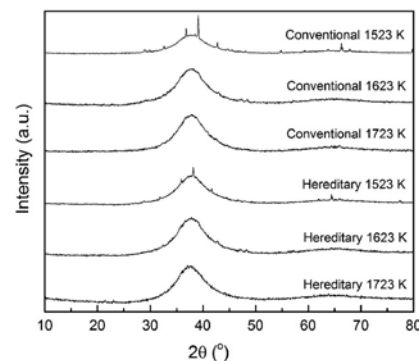


Shuaidan Lu, Shuchen Sun, Xiaoxiao Huang, Xiaoping Zhu, Ganfeng Tu and Kuanhe Li
Glass-forming ability and mechanical properties of a Zr_{52.8}Cu_{29.1}Ni_{7.3}Al_{9.8}Y₁ bulk metallic glass prepared by hereditary process

DOI 10.1515/gps-2015-0039
 Green Process Synth 2016; 5: 65–70

Original article: An attempt was made to find the effect of a hereditary structure on the glass-forming ability and mechanical properties of a solid Zr_{52.8}Cu_{29.1}Ni_{7.3}Al_{9.8}Y₁ bulk metallic glass in order to evaluate a novel process of using binary alloys as precursors, which have a hereditary relation to the aim metallic glass.

Keywords: bulk metallic glass; compressive strength; hereditary process; precursors; Zr-based.

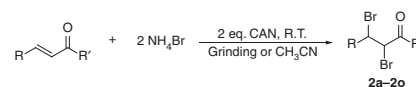


Balaji B. Totawar, Pramod S. Kulkarni and Zubaidha K. Pudukulathan
An improved and sustainable approach for the synthesis of α,β -dibromo ketones using ceric ammonium nitrate and ammonium bromide

DOI 10.1515/gps-2015-0097
 Green Process Synth 2016; 5: 71–77

Original article: Ceric ammonium nitrate and ammonium bromide were found to be an effective reagent system for bromination of chalcones.

Keywords: α,β -unsaturated ketone; ammonium bromide; bromination; CAN; dibromo ketone; grinding; sustainable approach.

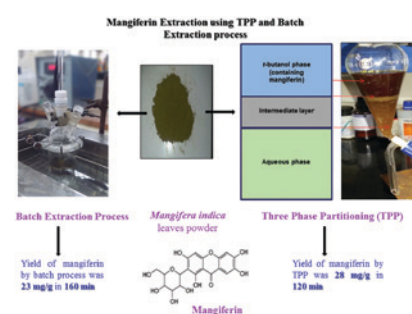


Vrushali M. Kulkarni and Virendra K. Rathod
Utilization of waste dried *Mangifera indica* leaves for extraction of mangiferin by conventional batch extraction and advance three-phase partitioning

DOI 10.1515/gps-2015-0090
 Green Process Synth 2016; 5: 79–85

Original article: Three-phase partitioning and batch extraction were evaluated to get an optimum yield of mangiferin from waste dried *Mangifera indica* (mango) leaves.

Keywords: batch extraction; dried mango leaves; solvent extraction; three-phase partitioning.

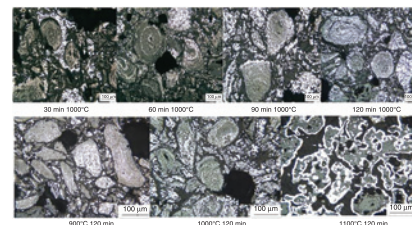


Huang Run, Shanshan Bi, Pengsheng Liu, Benjun Xu and Jinzhu Zhang
Research on the reduction of Guizhou oolitic hematite by hydrogen

DOI 10.1515/gps-2015-0057
 Green Process Synth 2016; 5: 87–91

Original article: The mass loss ratio and metallization ratio of the reduced sample had the same change tendency with the variation of time, during which the phases of fayalite and spinel could be formed during the reduction that would cause a lower reaction speed.

Keywords: direct reduction; H_2 ; metallization ratio; oolitic hematite.

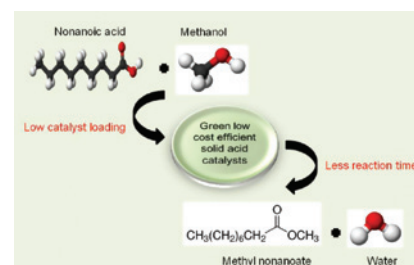


Kamalpreet Kaur, Pranjal Jain, Amit Sobti and Amrit Pal Toor
Sulfated metal oxides: eco-friendly green catalysts for esterification of nonanoic acid with methanol

DOI 10.1515/gps-2015-0087
 Green Process Synth 2016; 5: 93–100

Original article: Esterification of nonanoic acid with methanol using solid acid catalysts (synthesized by the green method) was performed to obtain the maximum acid conversion using low catalyst loading in less reaction time.

Keywords: esterification; green chemistry; methanol; nonanoic acid; sulfated iron oxide.



Hira Munir, Muhammad Shahid,
Fozia Anjum, Muhammad Nadeem
Akhtar, Sayed M. Badawy and
Ahmed El-Ghorab

**Application of *Acacia modesta* and
Dalbergia sissoo gums as green
matrix for silver nanoparticle binding**

DOI 10.1515/gps-2015-0064

Green Process Synth 2016; 5: 101–106

Original article: A low-cost, efficient, and ecofriendly method for the synthesis of silver nanoparticles (AgNPs) using gums as reducing agent was performed, and the characterization of AgNPs, such as antibacterial activity, *in vitro* toxicity, and mutagenic activity, was evaluated.

Keywords: *Acacia modesta*; *Dalbergia sissoo*; green matrix; gums; silver nanoparticles.

