In this issue

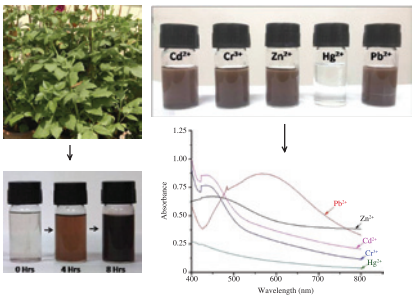
Kaushik Roy, Chandan K. Sarkar and Chandan K. Ghosh

Rapid colorimetric detection of Hg^{2+} ion by green silver nanoparticles synthesized using *Dahlia pinnata* leaf extract

DOI 10.1515/gps-2015-0052
Green Process Synth 2015; 4: 455–461

Original article: The article deals with colorimetric detection of hazardous Hg^{2+} ion by biogenic silver nanoparticles synthesized using leaf extract of *Dahlia pinnata*.

Keywords: *Dahlia pinnata* leaf extract; green silver nanoparticles; Hg^{2+} sensing ability; TEM; UV-Vis spectroscopy; XRD.



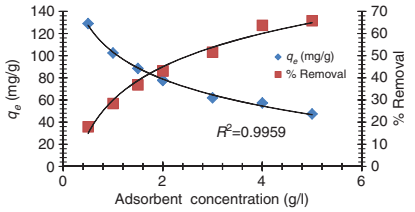
Ali Hashem, Hamdy A. Hammad and Alaauddin Al-Anwar

Chemically modified *Retama raetam* biomass as a new adsorbent for Pb(II) ions from aqueous solution: non-linear regression, kinetics and thermodynamics

DOI 10.1515/gps-2015-0074
Green Process Synth 2015; 4: 463–478

Original article: Succinic acid treated *Retama raetam*, a desert plant, was utilized as a biomass adsorbent for the removal of Pb(II) ions from aqueous solutions, and the effect of various parameters like pH, adsorbent concentration, contact time, temperature and initial concentration was investigated using batch process to optimize conditions for maximum adsorption.

Keywords: adsorption kinetics; aqueous solution; bio-adsorption; isotherm models; Pb(II) ions adsorption; *Retama raetam*; succinic acid; thermodynamics.



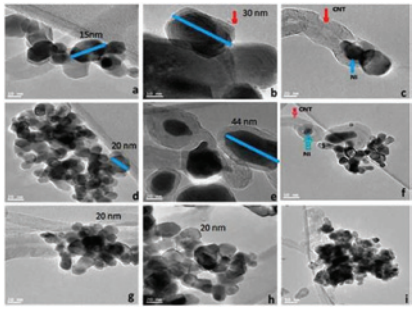
Nora Yahi, Saliha Menad and Inmaculada Rodríguez-Ramos

Dry reforming of methane over Ni/CeO_2 catalysts prepared by three different methods

DOI 10.1515/gps-2015-0061
Green Process Synth 2015; 4: 479–486

Original article: The article deals with TEM profiles of Ni-Ce catalysts prepared by sol-gel, autocombustion and microemulsion.

Keywords: autocombustion; dry reforming; methane; microemulsion; Ni/CeO_2; sol-gel.



Amneesh Singla, Rajnish Garg and Mukesh Saxena

Microstructure and wear behavior of Al-Al_2O_3 *in situ* composites fabricated by the reaction of V_2O_5 particles in pure aluminum

DOI 10.1515/gps-2015-0073
Green Process Synth 2015; 4: 487–497

Original article: The intention of this study is to investigate the microstructure and wear properties of *in situ* aluminum composite obtained by the addition of V_2O_5 particles in different amounts.

Keywords: alumina; hardness; *in situ* composite; V_2O_5; wear.