

In this issue

Libo Zhang, Feng Xie, Shiwei Li,
Shaohua Yin, Jinhui Peng and
Shaohua Ju

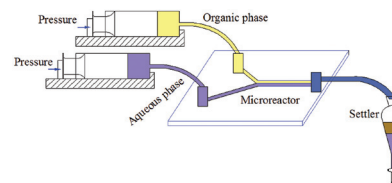
Solvent extraction of Nd(III) in a Y type microchannel with 2-ethylhexyl phosphoric acid-2-ethylhexyl ester

DOI 10.1515/gps-2014-0095

Green Process Synth 2015; 4: 3–10

Original article: Solvent extraction of Nd(III) in a Y type microchannel with 2-ethylhexyl phosphoric acid-2-ethylhexyl ester was studied.

Keywords: microreactor; Nd(III); P507 extractant; solvent extraction.



Di Liu, Jingwei Zhang, Chi Zhang and
Xiaoyan Kou

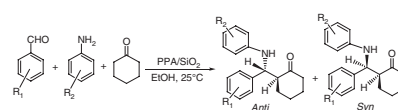
One-pot synthesis of β -amino carbonyl compounds catalyzed silica supported phenylphosphinic acid

DOI 10.1515/gps-2014-0077

Green Process Synth 2015; 4: 11–15

Original article: A simple and easy synthesis of β -amino carbonyl compounds was developed by the one-pot condensation of ketones, aromatic aldehydes and anilines at 25°C in the presence of silica supported phenylphosphinic acid.

Keywords: β -amino carbonyl compounds; Mannich reaction; silica supported phenylphosphinic acid; synthesis.



Namrata D. Gaikwad and Parag R.
Gogate

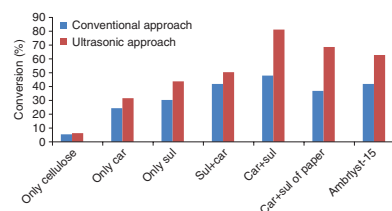
Synthesis and application of carbon based heterogeneous catalysts for ultrasound assisted biodiesel production

DOI 10.1515/gps-2014-0079

Green Process Synth 2015; 4: 17–30

Original article: Catalyst prepared by hydrothermal carbonization followed by sulfonation from the commercial cellulose showed the best catalytic performance in an intensified process for biodiesel production based on the use of ultrasonic irradiations and sustainable feedstock as palm fatty acid distillate.

Keywords: biodiesel; esterification; heterogeneous catalyst; intensification; ultrasound.



Chen Keke, Du Huan, Zhang Jiawen,
Zhang Xiaofang, Kuang Yingying and
Han Xiaoxiang

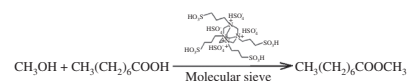
**Catalytic synthesis of methyl
caprylate using multi-SO₃H
functionalized Brønsted acidic
ionic liquid as catalyst**

DOI 10.1515/gps-2014-0080

Green Process Synth 2015; 4: 31–36

Original article: Multi-SO₃H functionalized Brønsted acidic ionic liquid was very efficient for the esterification of methyl caprylate and the catalyst could be recovered and reused several times without major loss of catalytic activity.

Keywords: esterification; ionic liquid; methyl caprylate.



Naveen Kumar Verma, Prateek Khare
and Nishith Verma

**Synthesis of iron-doped resorcinol
formaldehyde-based aerogels for
the removal of Cr(VI) from water**

DOI 10.1515/gps-2014-0072

Green Process Synth 2015; 4: 37–46

Original article: The resorcinol formaldehyde-based aerogels doped *in situ* with Fe contents were synthesized and used for the removal of Cr(VI) from water using adsorption, with the maximum adsorption capacity of ~55 mg/g obtained at the aqueous phase concentration of 275 mg/l.

Keywords: adsorption; chromium(VI); Fe-doping; RF aerogels; wastewater treatment.

