In this issue

Javier Fernández, Sourav Chatterjee, Volkan Degirmenci and Evgeny V. Rebrov
**Scale-up of an RF heated micro trickle bed reactor to a kg/day production scale**

Original article: The scale-up of an isothermal micro trickle bed reactor operated under radiofrequency heating has been developed.

Keywords: fine chemicals; magnetic nanoparticles; micro reactor; radiofrequency; scale-up; trickle bed.

DOI 10.1515/gps-2015-0035

Prem Kumar Seelam, Anne-Riikka Rautio, Mika Huuhtanen, Krisztian Kordas and Riitta L. Keiski
**Low temperature steam reforming of ethanol over advanced carbon nanotube-based catalysts**

Original article: Ni supported on carbon nanotubes (CNTs) was more active than the conventional carbon and alumina supported catalysts and overall (ZnO)_10Ni_10/CNT is the most active and selective catalyst in steam reforming of ethanol (SRE).

Keywords: CNT; hydrogen production; Ni; ZnO.


Vitaly V. Ordomsky, Andrei Y. Khodakov, Alexander T. Nijhuis and Jaap C. Schouten
**Heterogeneously catalyzed reactive extraction for biomass valorization into chemicals and fuels**

Original article: Heterogeneously catalyzed reactive extraction has been successfully proven for two ways of biomass valorization according to preserving and decomposing routes directed on the transformation of xylose to tetrahydrofurfuryl alcohol and glycerol into the C5+ hydrocarbons, respectively.

Keywords: aqueous phase reforming; biomass; dehydration; Fischer-Tropsch synthesis; reactive extraction.

DOI 10.1515/gps-2015-0037
Green Process Synth 2015; 4: 369–377

Hanane Akram, Cecilia Mateos-Pedrero, Esteban Gallegos-Suárez, Antonio Guerrero-Ruíz, Tarik Chafik and Inmaculada Rodríguez-Ramos
**Facile solvothermal synthesis of bimetallic CoMoS_2 and NiMoS_2 nanospheres**

Original article: Bimetallic MMoS_2 (M=Ni or Co) nanospheres, with diameter ranging between 450 nm and 1 μm, have been successfully synthesized using a mild solvothermal method.

Keywords: CoMoS_2; MoS_2; nanospheres; NiMoS_2; solvothermal synthesis.

DOI 10.1515/gps-2015-0017
Achanai Buasri and Vorrada Loryuenyong

**The new green catalysts derived from waste razor and surf clam shells for biodiesel production in a continuous reactor**

*Original article:* The waste razor and surf clam shells have been successfully utilized as the new heterogeneous catalysts for the transesterification reaction of *Jatropha curcas* oil with methanol in a fixed bed reactor.

*Keywords*: biodiesel; CaO catalyst; packed bed reactor; transesterification; waste shell.

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Umar Isah Abubakar, Lee Suan Chua and Ramlan Aziz

**Kinetics of green solid-liquid extraction of andrographolide from *Andrographis paniculata*: effects of particle size and solid-liquid ratio**

*Original article:* In this work, the influences of particle size and solid-liquid ratio on the kinetics of green solid-liquid extraction of andrographolide from *Andrographis paniculata* (AP) were investigated.

*Keywords*: green solid-liquid extraction; kinetics; selectivity of andrographolide water extracts; specific extraction rate constant; yield of andrographolide water extracts.

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Huihua Wang, Yanmei Yang, Tianpeng Qu, Zhenhui Kang and Deyong Wang

**Co$_3$O$_4$ and CDots nanocrystals on g-C$_3$N$_4$ as a synergetic catalyst for oxygen reduction reaction**

*Original article:* Schematic illustration of the preparation of Co$_3$O$_4$-C/C$_3$N$_4$, catalysts and their catalytic ability for ORR compared to that of free Co$_3$O$_4$, C$_3$N$_4$, CDots, Co$_3$O$_4$-C, Co$_3$O$_4$-C$_3$N$_4$, and commercial Pt/C.

*Keywords*: CDots; durability; electrocatalyst; g-C$_3$N$_4$; onset potential; ORR.

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Yashvir Singh, Rajnish Garg and Suresh Kumar

**Optimization of tribological behavior of Pongamia oil blends as an engine lubricant additive**

*Original article:* Tribological characteristics of Pongamia-based blended lubricants have been analyzed using the Taguchi method at different sliding velocities and loads.

*Keywords*: ANOVA; friction coefficient; pin weight loss; Taguchi; wear rate.