Catalytic performance of acidic ionic liquid in esterification of benzyl alcohol with butyric acid

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Synthesis of benzyl butyrate is optimized by response surface methodology using SO$_3$H-functionalized Brønsted acidic ionic liquids as catalysts. A Box-Behnken model has been applied to obtain the optimal conditions ($R^2 = 0.9907$). Under the optimized conditions, the yield of benzyl butyrate reaches 99.4%. [HSO$_3$-pmm][HSO$_4$] shows high stability and catalytic activity for the esterification.

Novel Fe encapsulated montmorillonite K10 clay for photo-Fenton mineralization of Acid Yellow 17

Muthuvel, B Krishnakumar & M Swaminathan*

Solid hetero-Fenton catalyst with 26 % ferric nitrate loading is found to be most efficient in the degradation of Acid Yellow 17. While its activity is significant up to $p$H 7, the catalyst exhibits the best photocatalytic activity at $p$H 3.
807 CdO and CdS nanoparticles from pyrolytic method: Preparation, characterization and photocatalytic activity

Sandip Mondal, Tanmay Chattopadhyay*, Sudhanshu Das, Sankar Roy Maulik, Swarup Neogi & Debasis Das

812 Intercalation of biologically important iminodiacetato-chromium(III) ion in the interlayer of ZnAl-layered double hydroxide

Intercalation of the biologically important bis-iminodiacetato-chromium(III) ion, [Cr(ida)₂]⁺, in the interlayer of ZnAl-layered double hydroxide through rehydration of ZnAl(O) mixed oxide, and, its characterization by XRD, TG-DTA, FT-IR and UV-vis-DRS is described.

R Sahu, B S Mohanta & N N Das*
2,7-Diferrocenyl-3,6-diazaocta-2,6-diene: A highly selective dual fluorescent sensor for Zn$^{2+}$ and Ag$^+$ and electrochemical sensor for Zn$^{2+}$

Kaku Dutta & Diganta Kumar Das*

Microwave synthesis of polymer coated silver nanoparticles by glucose as reducing agent

Silver nanoparticles (~ 11 nm) are prepared by a simple method employing silver nitrate as precursor, glucose as reducing agent and PVP as stabilizing agent.

Jolly Pal & Manas Kanti Deb*
Cold induced aggregation microextraction with an ionic liquid, [C₆MIM][PF₆], is used as a rapid and simple method for determination of trace amounts of cadmium and lead by sequential analysis with flame atomic absorption spectroscopy.

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