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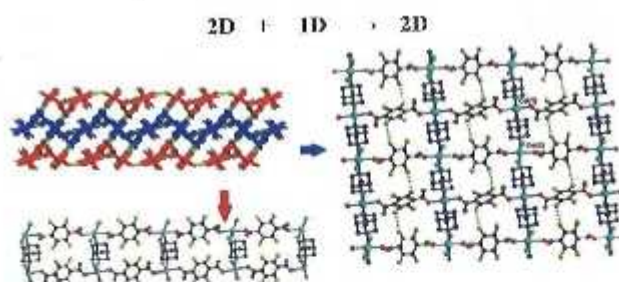
NUMBER 2

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**CONTENTS**

- 203 A rare case of 2D+1D → 2D Cd(II) coordination polymer without any entanglements: Synthesis, structure and luminescent property

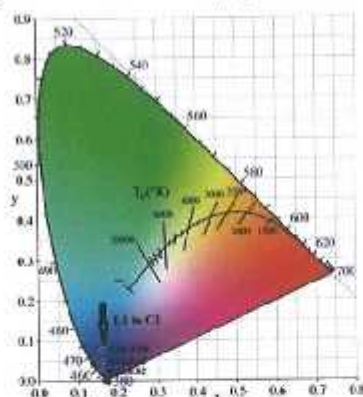
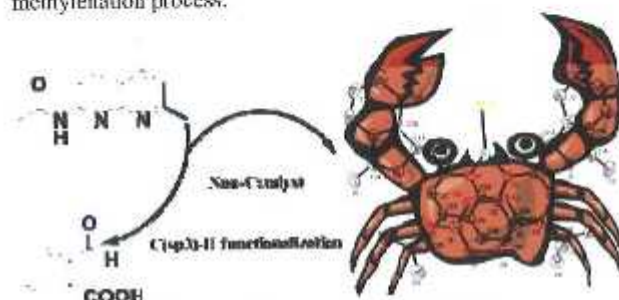
The variable architectures of two Cd(II) coordination polymers, controlled by the metal-to-ligand ratios, exhibit a structural progression from 2D rectangular grid to an unusual 2D + 1D → 2D net without any entanglements.



Meiling Cheng, Enjing Zhu, Yanpeng Zhang,  
Shen Wang, Qi Liu\*, Qun Chen\* & Mingyang He

- 211 Synthesis, spectroscopic properties and theoretical calculations on methylene bridged 1,8-naphthyridine ligands and copper(I) complex through a non-catalyst C(sp<sup>3</sup>)-H methylation

Two methylene bridged 1,8-naphthyridine ligands and a copper(I) complex is synthesized through a non-catalyst C(sp<sup>3</sup>)-H methylation process.



Gao-Zhang Gou\*, Bo Zhou, Xue-Bing Chen,  
Xue-Quan Wang, Chao-Yong Mang, Wei Liu,  
Shao-Ming Chi\*

220 H-beta zeolite catalysed synthesis of N-benzylbenzamide from benzonitrile and benzyl alcohol

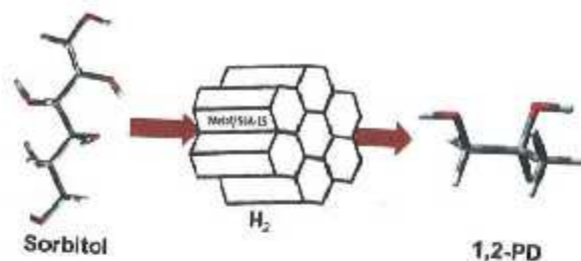
Ritter reaction: between nitriles and alcohols with 95.4% conversion and 91% isolated yield in toluene with H-beta zeolite as an effective catalyst is reported. The process has been applied for scale up trial on 1 g (benzyl alcohol) batch under the optimized reaction conditions.



Kalpeshgiri A Gosai, Adarsh S Bhatt, Mihir R Belani, R S Somani\* & H C Bajaj\*

226 Hydrogenolysis of sorbitol over Ni, Pt and Ru supported on SBA-15

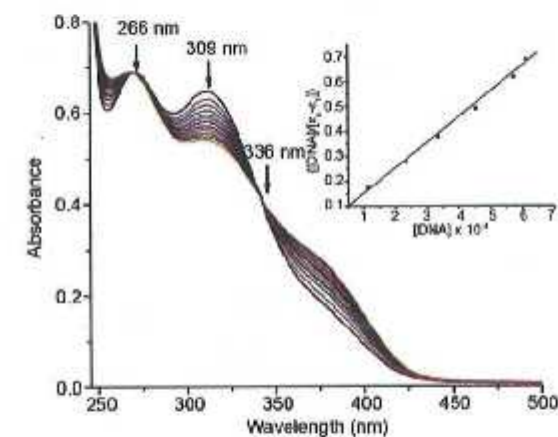
Hydrogenolysis of sorbitol has been carried out in a batch reactor over Ni (6 wt%), Pt (1 wt%) and Ru (1 wt%) supported on SBA-15 as well as carbon coated SBA-15. Addition of Ca(OH)<sub>2</sub> to the reaction mixture increases conversion and selectivity for the dihydroxy compounds, 1,2-propanediol and ethylene glycol. Catalytic activity at 220 °C and 60 bar in the presence of Ca(OH)<sub>2</sub> is in the order: Ru-AC (40 wt%) > Ru-SBA-15(C) (39 wt%) > Ru-SBA-15 (31 wt%) > Ni-SBA-15 (29 wt%).



M Banu\*, T M Sankaranarayanan, P Venugalingam, G Magesh & S Sivasanker

232 Synthesis, DNA binding properties and antibacterial activity of lanthanide complexes with 2-benzoylpyridine isonicotinoylhydrazone

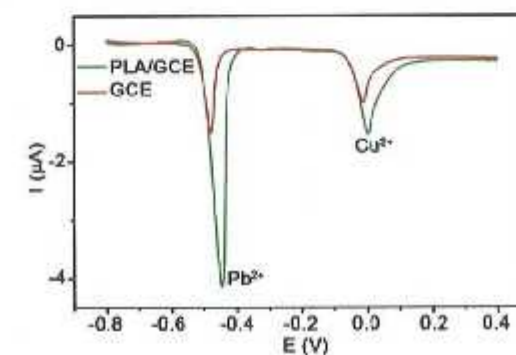
Lanthanide(III) complexes of the general formula, [Ln(BPINH)<sub>2</sub>(NO<sub>3</sub>)<sub>3</sub>] (NO<sub>3</sub>)<sub>3</sub>, (where, Ln = La, Ce, Pr, Nd, Sm, and BPINH = 2-benzoylpyridine isonicotinoylhydrazone) have been synthesized under mild reaction conditions with excellent yields. Absorption titration studies reveal that these complexes are avic binders ( $K_b = 10^5$ ) to calf-thymus DNA.



B Moksharagni, M Rishitha & K Hussain Reddy\*

238 Simultaneous determination of lead and copper by anodic stripping voltammetry using a poly(L-glutamic acid) modified electrode

A new anodic stripping voltammetric method using poly(L-glutamic acid) modified electrode has been developed for the separation and simultaneous determination of trace amounts of Pb(II) and Cu(II). The stripping peak currents are well proportional to the concentration of lead and copper over the range of  $5.00 \times 10^{-8}$ – $1.00 \times 10^{-4}$  mol L<sup>-1</sup>, with detection limits of  $5.0 \times 10^{-9}$  mol L<sup>-1</sup> and  $1.0 \times 10^{-9}$  mol L<sup>-1</sup>, for Pb(II) and Cu(II) respectively respectively.



Ning Xie, Wei Ma, Hui Gao\* & Dengming Sun\*

Authors for correspondence are indicated by (\*)