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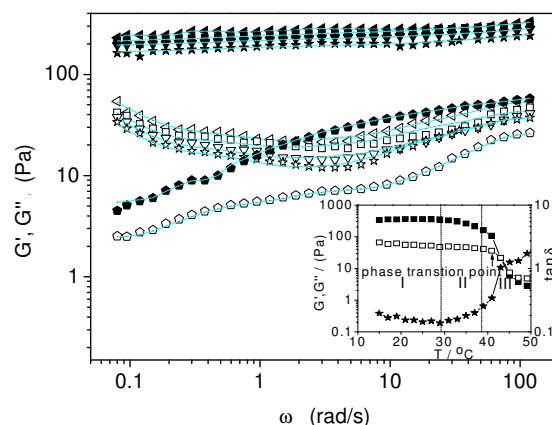
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CONTENTS

- 641 Phase behaviour and rheological properties of the lamellar liquid crystals formed in dodecyl polyoxyethylene polyoxypropylene ether/water system**
- The rheological properties of the lamellar liquid crystals formed in the binary system, $C_{12}E_4P_3/H_2O$, indicate that these liquid crystals exhibit shear-thinning properties and behave like a plastic material. The lamellar liquid crystals show a typical gel-like rheogram, which can be described by the Maxwell model.



J Zhao, Z N Wang*, X L Wei, F Liu, W Zhou,
X L Tang & T H Wu

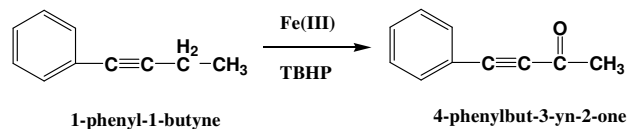
- 650 Mechanistic studies of aquachlororhodium(III) catalysis in potassium iodate oxidation of 1,2-propanediol in acidic medium: A kinetic approach**
- Aquachlororhodium(III) catalysis in oxidation of 1,2-propanediol by acidic solution of KIO_3 involves interaction between IO_3^- and $[Cl_5Rh(HO \rightarrow Hg)]^{-1}$ in the slow and rate determining step, giving an active complex $[RhCl_5(IO_3)]^{-3}$ which attacks 1,2-propanediol rapidly to regenerate the reactive species, Rh(III) chloride. Acetic acid and formic acid are obtained as oxidation products in the subsequent fast steps. These steps lead to the following rate law consistent with the observed kinetic results.

$$-\frac{d[IO_3^-]}{dt} = \frac{kK_1K_2[IO_3^-][Rh(III)]_T[Hg(II)]_T}{[H^+](K_1 + [Cl^-]) + K_1K_2([Rh(III)]_T + [Hg(II)]_T)}$$

Bharat Singh*, Aniruddh Kumar Singh &
Anamika Singh

658 Oxidation of substituted alkynes catalyzed by a non-heme iron(III) bis-benzimidazole diamide complex as catalyst under ambient conditions

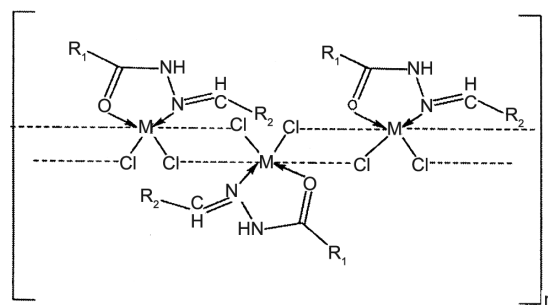
Iron(III) complexes of *N,N'*-bis(2-methylbenzimidazolyl) hexanediamide have been used as catalyst in the oxidation of substituted alkynes along with TBHP or H_2O_2 as an alternate source of oxygen.



Ruchi Bakshi, Ravinder Kumar & Pavan Mathur*

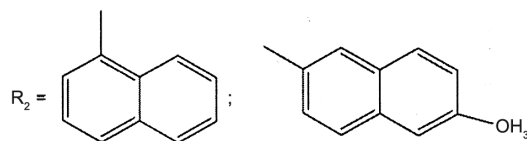
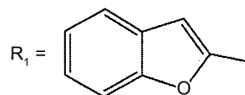
664 Synthesis, spectral characterization and DNA cleavage studies of Co(II), Ni(II), Cu(II), Zn(II), Cd(II) and Hg(II) complexes with benzofuran-2-carbohydrazide schiff bases

Metal(II) complexes have been synthesized using schiff bases derived from the condensation of benzofuran-2-carbohydrazide with 1-naphthaldehyde or 6-methoxy-2-naphthaldehyde. The Cu(II), Ni(II) and Co(II) complexes have also been studied for their plasmid (pBR322) DNA cleavage activity.



where $M = \text{Co(II)}, \text{Ni(II)} \text{ or } \text{Cu(II)}$

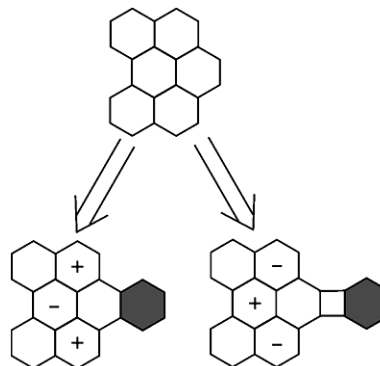
and



M B Halli* & Vijayalaxmi B Patil

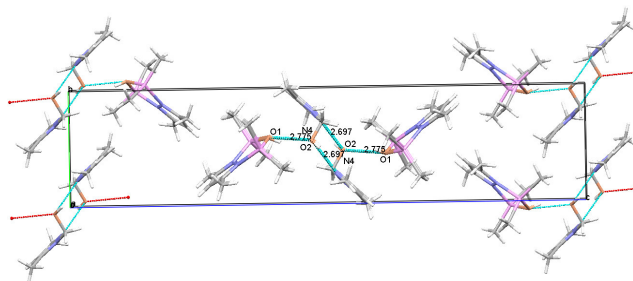
Notes

- 670 Effect of benzocyclobutadieno-annulation on cyclic conjugation



Ivan Gutman

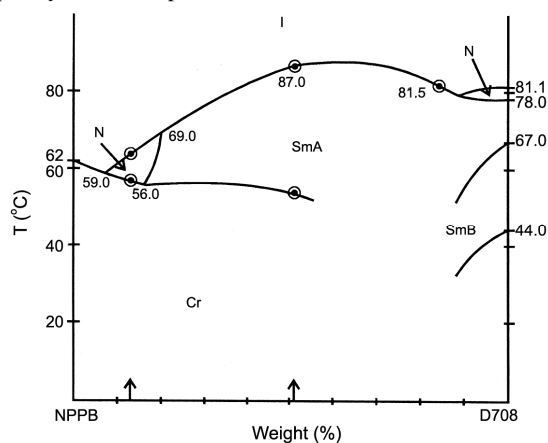
- 674 Diorgano-gallium and -indium complexes with 1-(hydroxymethyl)pyrazole and 3,5-dimethyl-1-(hydroxymethyl)pyrazole: Synthesis, characterization and crystal structures of $[\text{Me}_2\text{MOCH}_2\text{dmpz}]_2$ ($\text{M} = \text{Ga}, \text{In}$) and $[(\text{Me}_2\text{Ga})_2(\mu\text{-OH})(\mu\text{-dmpz})][\text{dmpzCH}_2\text{OH}]$



Nisha P Kushwah, Manoj K Pal, Amey P Wadawale & Vimal K Jain*

- 680 Dielectric measurements of nematic and smectic A phases in a binary system

Dielectric properties of two bi-component mixtures of different polarities are presented. In the case of large concentration of highly polar group, an intermediate nematic phase has been observed. Both smectic A and nematic phases show low frequency relaxation phenomenon.



Rajinder K Bamezai*, Meena Sharma,
Monika Gupta, Ankush Gupta & Arti Soni

