

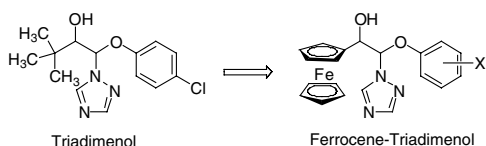
## CONTENTS

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### Section: Bioorganometallic Chemistry

A class of novel ferrocene-triadimenol analogues was synthesized and their biological potential evaluated. Screening data have revealed that these new derivatives did not have antifungal activities of parent compounds, but showed unexpectedly promising plant growth regulatory activity.



J. Fang\*, Z. Jin, Y. Hu, W. Tao and L. Shao ..... 813–818

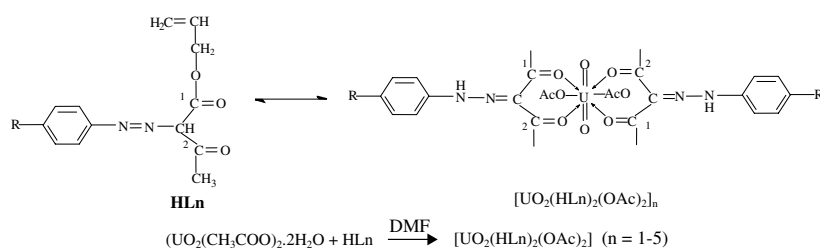
*Synthesis and evaluation of novel ferrocene-substituted triadimenol analogues*

### Section: Materials, Nanoscience and Catalysis

HLn behaves as a chelating bidentate neutral ligand, bonding through two oxygen atoms. Three fundamental modes of vibrations of the  $\text{UO}_2^{2+}$  ion are IR active in the present polymer complexes which explain the linearity of the uranyl entity. In all complexes, two ligand units and two acetate molecules remain in the equatorial plane. It is also suggested that the two acetate molecules remain in the trans-position. A new relationship between  $r_1, r_2, r_3$  with respect to  $r_t$  were determined by Global error which shows that the excellent validity is in the sequence:  $\sqrt{(r_3 - r_t)^2} > \sqrt{(r_1 - r_t)^2} > \sqrt{(r_2 - r_t)^2}$ .

Ahmed T. Mubarak, A. Z. El-Sonbati\*,  
A. A. El-Bindary, R. M. Issa and H. M. Kera  
..... 819–829

*Polymer Complexes: Supramolecular Modeling for Determination and Identification of the Bond Lengths in Novel Polymer Complexes from their Infrared Spectra*

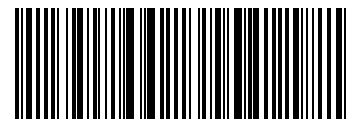


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#### Identification statement

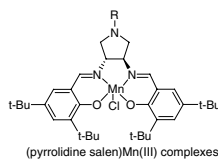
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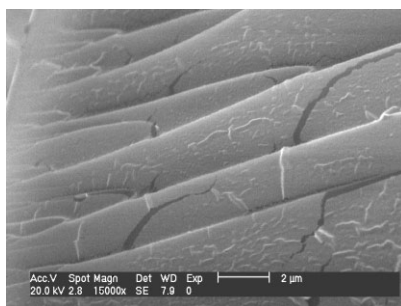
Catalytic properties of a series of chiral (pyrrolidine salen)Mn(III) complexes for asymmetric oxidation of aryl methyl sulfides were evaluated. Moderate activity, good chemical selectivity and low enantioselectivity were attained with iodosylbenzene as a terminal oxidant. The steric effect of the  $N_{aza}$ -substituent in the backbone of complexes on the enantioselectivity of sulfide oxidation was explored.



A. Gao, M. Wang\*, J. Shi, D. Wang, W. Tian and L. Sun\* ..... 830–834

*Asymmetric oxidation of sulfides catalyzed by chiral (salen)Mn(III) complexes with a pyrrolidine backbone*

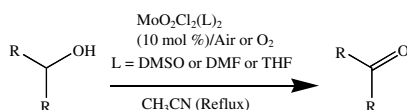
Novel organosilicates with covalently linked functional modified aromatic acid have been synthesized from 3-amino-propyl triethoxysilane-grafted 4-ethoxy benzoic acid (EB-Si) and terbium ions via a simple low-temperature route. They exhibit effective luminescence and attracting regular micrometer chain microstructure.



B. Yan\*, B. Zhou and Q.-M. Wang ..... 835–839

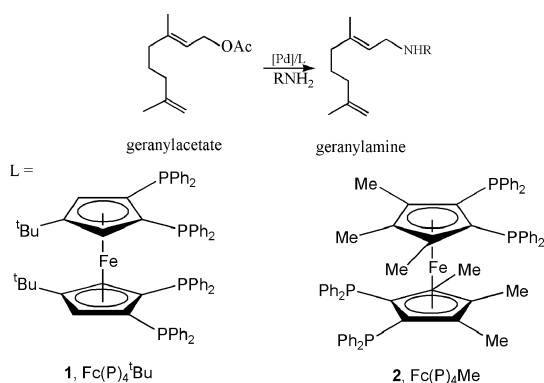
*Luminescent lanthanide molecular-based hybrid materials bridged through novel urethane linkages*

Selective and controlled aerobic oxidation of activated benzyl alcohols to corresponding aldehydes is achieved in refluxing  $\text{CH}_3\text{CN}$  using catalytic amounts of  $\text{MoO}_2\text{Cl}_2(\text{L})_2$  where L is DMSO, DMF or THF under open air or bubbling of oxygen. Both activated and deactivated varieties of  $\alpha$ -substituted benzyl alcohols (secondary alcohols) give ketones in the same reaction conditions.



K. Jeyakumar and D. K. Chand\* ..... 840–844

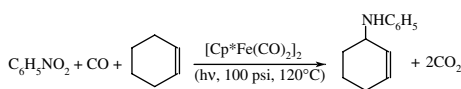
*Aerobic oxidation of benzyl alcohols by  $\text{Mo}^{\text{VI}}$  compounds*



Duc Hanh Nguyen, Martine Urrutigoity\*, Aziz Fihri, Jean-Cyrille Hierro, Philippe Meunier and Philippe Kalck ..... 845–850

*Efficient palladium–ferrocenylphosphine catalytic systems for allylic amination of monoterpene derivatives*

The photochemical reactions of unsubstituted alkenes and nitroarenes under CO pressure, catalyzed by  $[\text{Cp}^*\text{Fe}(\text{CO})_2]_2$ , forms the corresponding allyl amines. Trapping experiments suggest that neither aryl nitrene nor nitrosoarene is the active aminating agent in these transformations.



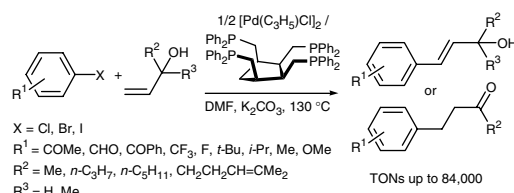
R. S. Srivastava\* ..... 851–854

*Photo-induced iron-catalyzed allyl amination of unfunctionalized olefins with nitroarenes*

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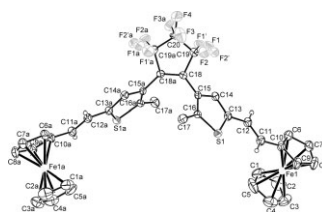
*cis,cis,cis*-1,2,3,4-Tetrakis(diphenylphosphinomethyl)cyclopentane/[PdCl(C<sub>3</sub>H<sub>5</sub>)<sub>2</sub>] efficiently catalyses the Heck reaction of alk-1-en-3-ol with a variety of aryl bromides. In the presence of hex-1-en-3-ol or oct-1-en-3-ol, the  $\beta$ -arylated carbonyl compounds were selectively obtained. Linalool and 2-methylbut-3-en-2-ol led to the corresponding 1-arylalk-1-en-3-ol derivatives.



F. Berthiol, H. Doucet\* and M. Santelli\* ..... 855–868

*Heck reactions of aryl halides with alk-1-en-3-ol derivatives catalysed by a tetraphosphine–palladium complex*

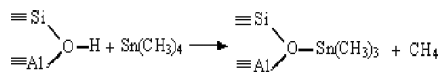
Two novel dithienylethenes with ferrocene units were synthesized by Wittig reaction. The structure of **2a** has been established by X-ray diffraction studies. They could reversibly interconvert between two thermally stable forms, an open and a closed one, using light of different wavelengths as triggers.



J. Yin, G.-A. Yu, H. Tu and S. H. Liu\* ... 869–873

*Novel photoswitching dithienylethenes with ferrocene units*

The reaction of SnMe<sub>4</sub> with the hydroxyls of HZSM-5 zeolite occurred at 223 K. The microporous structure of HZSM-5 was retained after the reaction and posttreatment.

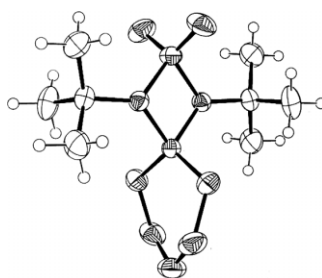


Y. Zheng, X.-X. Wang\*, Z.-H. Li, X.-Z. Fu and K.-M. Wei ..... 874–879

*Study of the grafting reaction of SnMe<sub>4</sub> on the surface of ZSM-5*

## Section: Main Group Metal Compounds

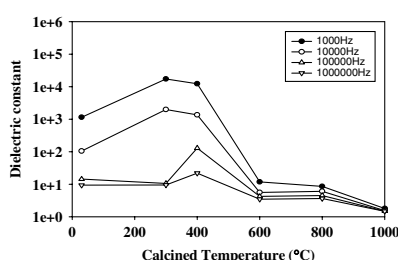
O<sub>2</sub>S(<sup>t</sup>BuN)<sub>2</sub>PCl reacts with S<sub>4</sub>N<sub>4</sub> to afford 4,6-spirocycle in moderate yield. The deep blue crystals of the spirocycle are air-stable and have high melting point. The 4,6-spirocycle, whose X-ray structure is reported in this paper, is the first example containing a four-membered saturated phosphetidine ring (PN<sub>2</sub>S) and a six-membered unsaturated  $\pi$ -electron-rich (8 $\pi$ ) phosphathiazene (PS<sub>2</sub>N<sub>3</sub>) fused at phosphorus as the spiro atom.



J. Gopalakrishnan\*, B. Varghese, A. Doddi, and M. N. Sudheendra Rao ..... 880–885

*A new synthetic route to cyclophosphadithiatriazenes: synthesis and X-ray structural characterization of the first spirocycle containing thiadiazaphosphetidine and phosphadithiatriazene heterocycles*

Pure perovskite lead titanate powder (PbTiO<sub>3</sub>) was successfully produced via the sol-gel process using lead and titanium glycolates as starting precursors which had been synthesized by the OOPS process. The product powder calcined at 300 °C for 3 h had the highest dielectric constant and electrical conductivity values: namely, 17 470 and 1.83  $\times 10^{-3}$ , respectively.



The dielectric constant measured at 25 °C of the lead titanate powders calcined at various temperatures for 3 h

N. Tangboriboon, A. M. Jamieson, A. Sirivat\* and S. Wongkasemjit ..... 886–894

*A novel route to perovskite lead titanate from lead and titanium glycolates via the sol-gel process*