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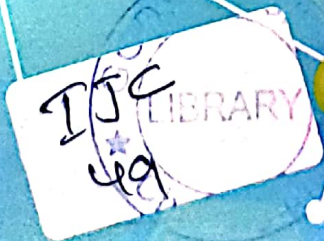
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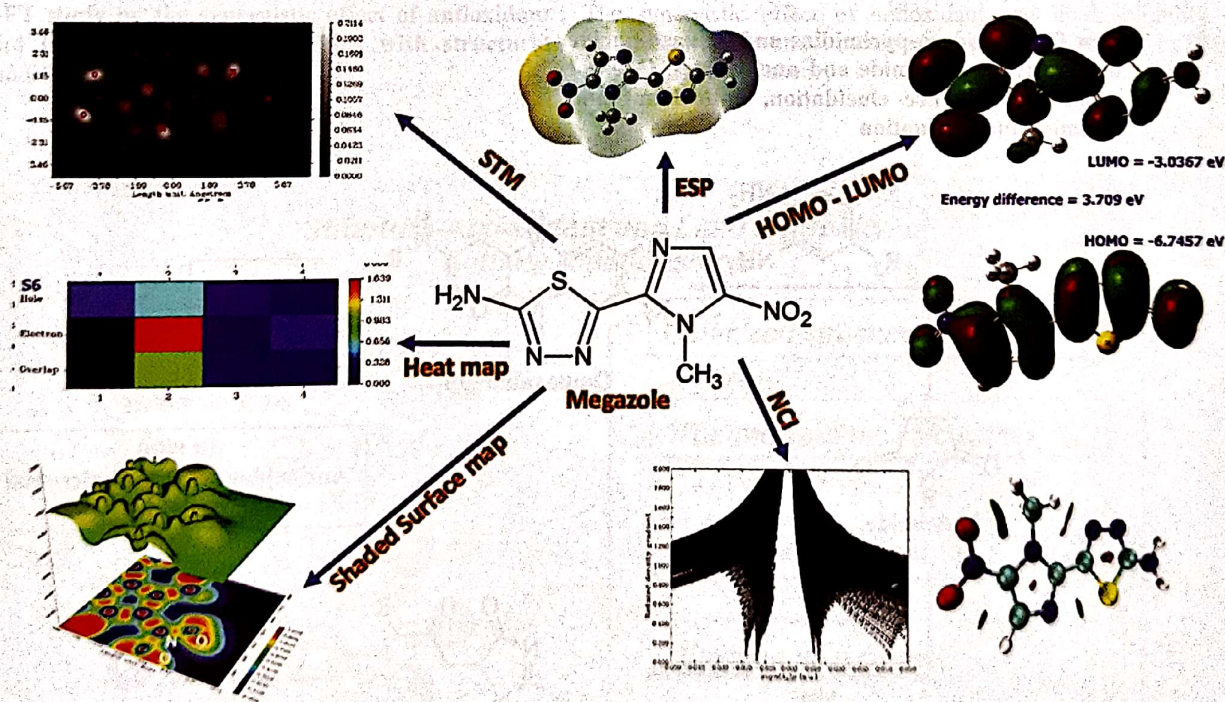
NUMBER 2

FEBRUARY 2026

CONTENTS

Papers

- 61 DFT, wavefunction and toxicity analyses of Megazole

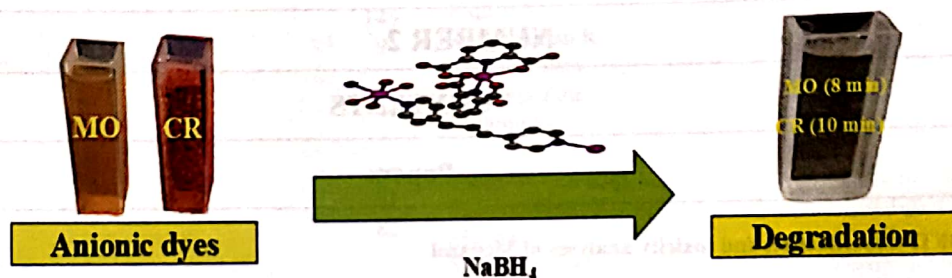


J Jebasingh Kores, I Antony Danish, T Balasankar, D Abiya Chelliah, P Jeya Sheela,
S Darwin Paul Edison & J Winfred Jebaraj*

Department of Chemistry, St. John's College, Tirunelveli 627 002, Tamil Nadu, India

- 82 **Synthesis, characterization and catalytic application of a coordination compound of cobalt(II) based on 2,6-pydc and TMDP for degradation of dyes under dark**

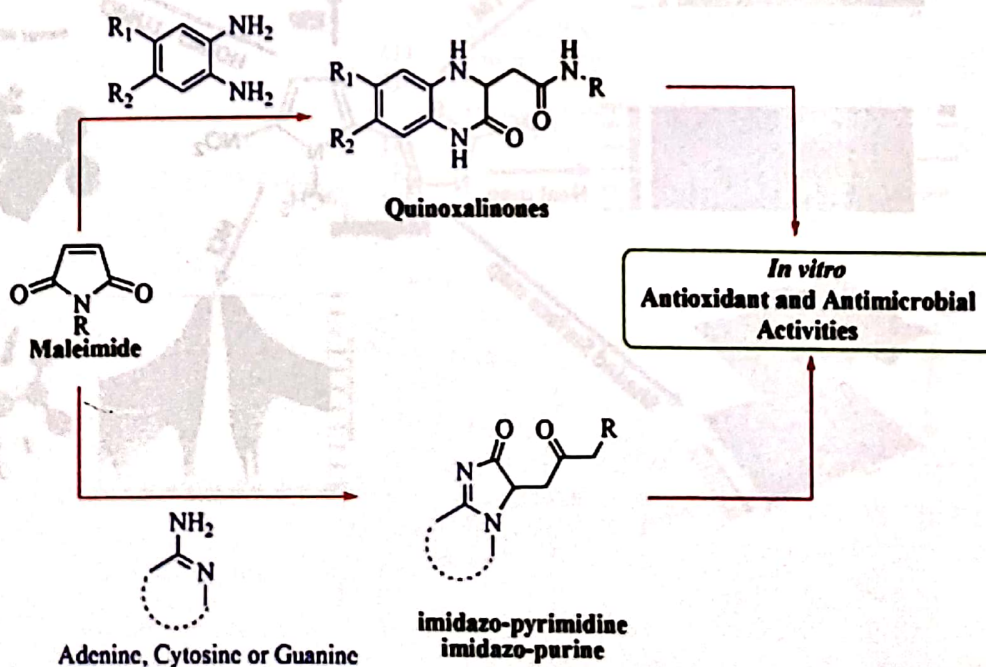
A cobalt(II) coordination polymer $[\{Co(TMDP)(H_2O)_4\}_n\{Co(2,6-pydc)_2\}] \cdot H_2O$ has been resynthesized following a new synthetic route and characterized through SC-XRD analysis and variety of other instrumental techniques. This coordination polymer has been explored as a catalyst for the degradation of anionic dyes under dark with $NaBH_4$ as reducing agent. Surprisingly it shows very fast degradation.



Aieshri Swargiary, Tanmoy Kumar Ghosh, Anamika Kalita Deka & Arunendu Mondal*

Department of Chemistry, Central Institute of Technology Kokrajhar (Deemed to University under Ministry of Education, Govt. of India), Kokrajhar 783 370, Assam, India

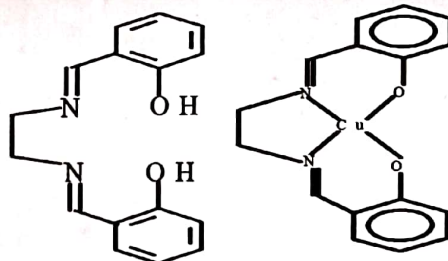
- 91 **New fused imidazo-pyrimidine and imidazo-purine derived from maleimide and nucleobases: One pot synthesis, structure elucidation, antioxidant and antimicrobial evaluation**



Rabia Youmbai, Nawal Khier, Mohamed Dehamchia*, Samir Bayou & Zine Régainia

Laboratory of Applied Chemistry and Environment, Department of Chemistry, University of El Oued, PO Box 789, 39000, Algeria

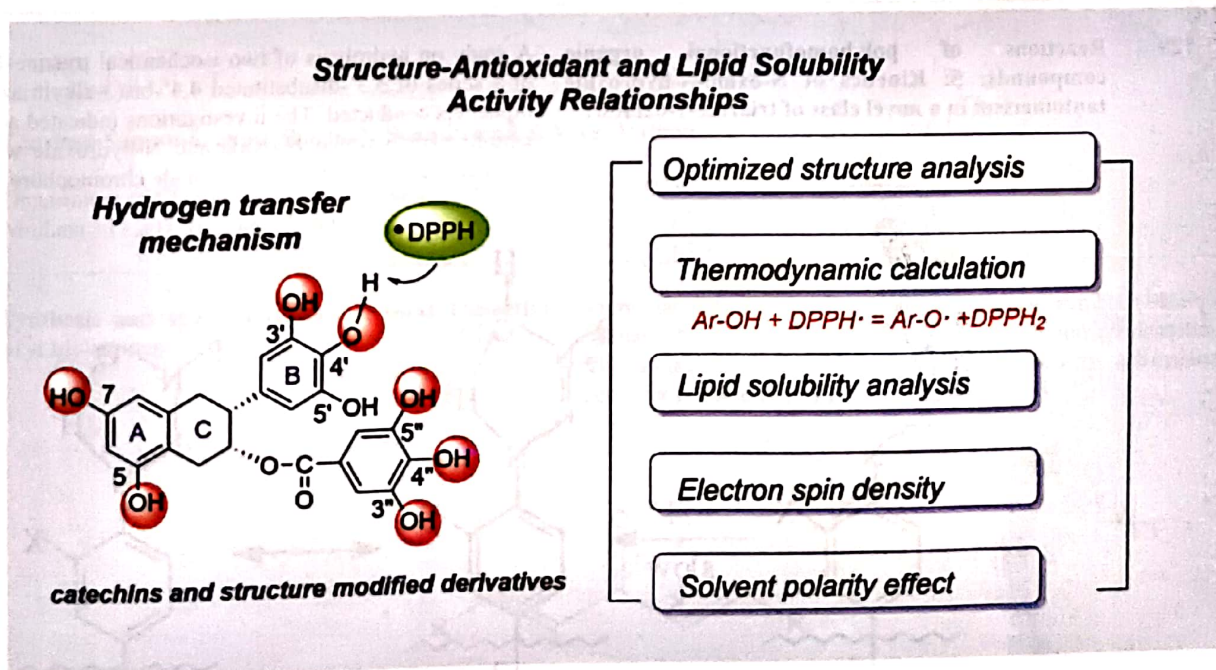
- 104 **Reactions of polyhomofunctional organic compounds: 3: Kinetics of hydrolysis of ethylene bridged salicylaldimine Schiff base and its mononuclear copper (II) complex** An investigation on the hydrolytic cleavage of azomethine sites in ethylene bridged salicylaldimine Schiff base and its mononuclear copper (II) complex have been conducted. Different thermodynamic parameters and appropriate mechanism are reported.



Suryanarayana Raju Sivangi* & Ramachandraiah Allikayala

Department of Chemistry, Godavari Global University, Rajamahendravaram 533 296, Andhra Pradesh, India

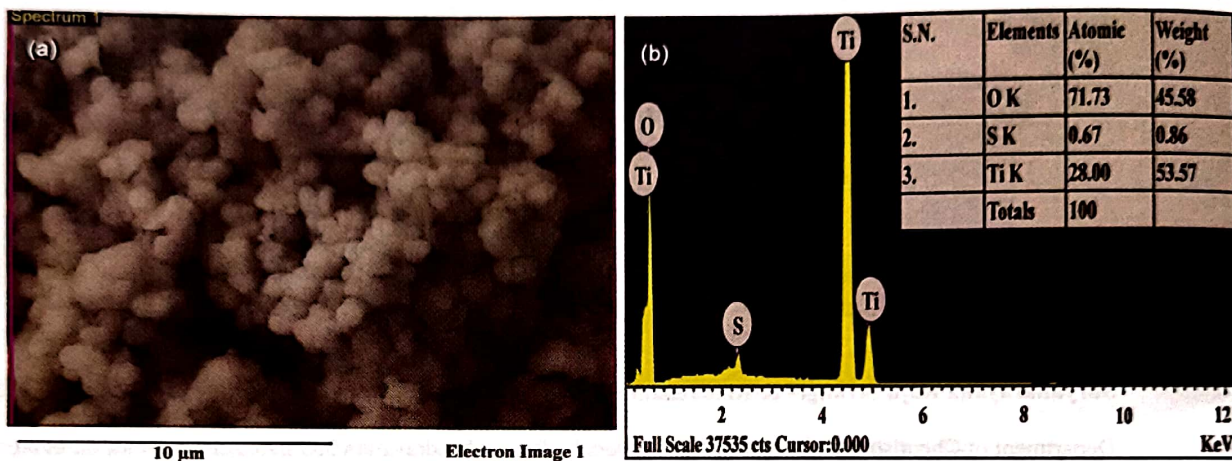
- 111 **DFT study on the synergistic effect of antioxidant and lipid solubility of catechins with structural modification** The synergistic effect of antioxidant and lipid solubility of catechins with structural modification have been studied by using density functional theory.



Yang Yimeng, Li Ruitong, Li Zhiyao, Tu Lin, Bao Yixi, Yi Yuanxue & Ren Yanrong*

College of Biological & Chemical Engineering, Chongqing University of Education, Chongqing 400067, China

- 118 **Comparative study of nanostructured 3d and 4d transition metal oxides (Mn_2O_3 and TiO_2) for energy, environmental, and biomedical applications: Synthesis, characterization, and future perspectives**

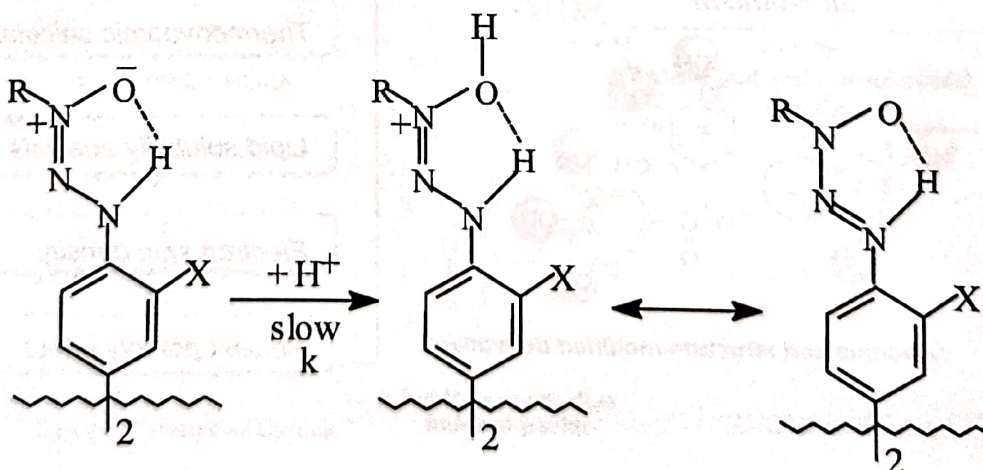


Gajendra Singh Lodhi, Jyoti Sharma* & Laxman Singh

Department of Chemistry, School of Basic and Applied Sciences, Shobhit Institute of Engineering and Technology (Deemed-to-be-University), Meerut 250 110, Uttar Pradesh, India

- 128 **Reactions of polyhomofunctional organic compounds: 5: Kinetics of N-oxide-N-hydroxide tautomerism in a novel class of triazine-1-oxides**

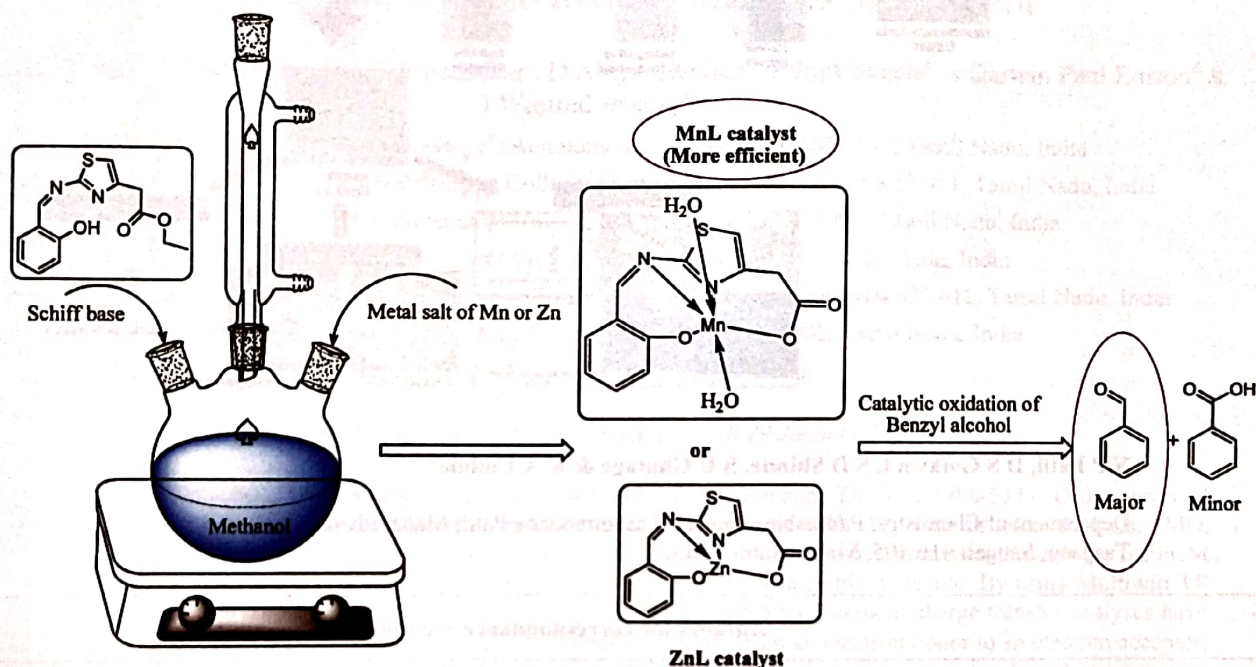
A study on hydrolysis of two isochemical triazine-1-oxide sites of a series of 3,3'-disubstituted 4,4'-bis(3-alkyltriazine-3-oxide) biphenyls conducted. The investigations indicated acid-catalysed tautomerism between N-oxide and N-hydroxide with a typical bathochromic shift of triazine-1-oxide chromophore.



Suryanarayana Raju Sivangi* & Ramachandralah Allikayala

Department of Chemistry, Godavari Global University, Rajamahendravaram 533 296, Andhra Pradesh, India

- 135 Synthesis and structural studies of Mn(II) and Zn(II) thiazole-Schiff base complexes with catalytic application in benzyl alcohol oxidation

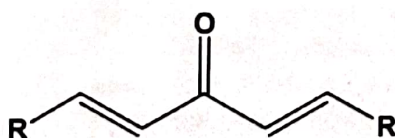


Gurdeep Sangwan, Jyoti Sharma*, Sonu Prasad & Vikas Rathod

Department of Chemistry, MMEC, Maharishi Markandeshwar (Deemed to be University),
Mullana 133 207, Haryana, India

- 145 Synthesis and spectral studies of some bio-active aryl bis-enones

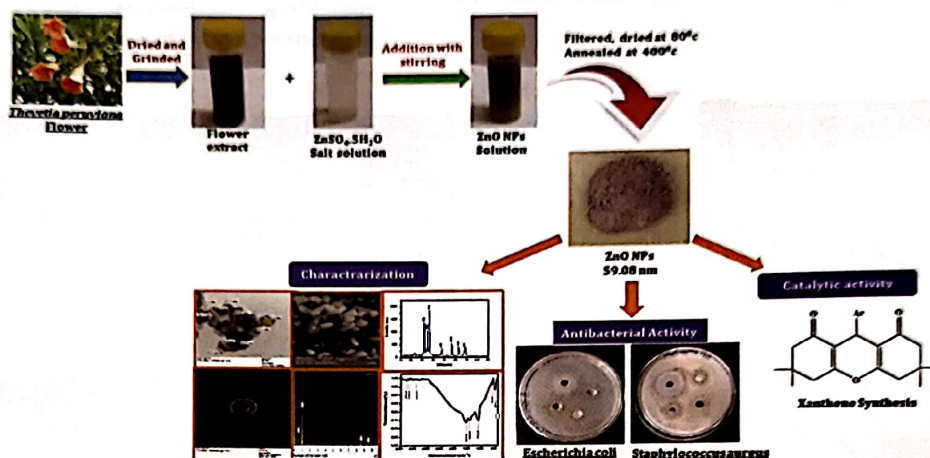
More than 60% yields of some aryl bis enones have been obtained by nano fly-ash: H_3PO_4 catalyzed Claisen-Schmidt condensation. The molecular docking, antimicrobial and *in vitro* antimalarial activities of these enones have been investigated.



P Gayathri, P Mayavel, I Muthuvel, S Balasundari, P Sudha, V Usha, K Ranganathan, V Sathiyendiran,
B Krishnakumar*, S Rajasri, K Veeravela & G Thirunarayanan*

Department of Chemistry, Annamalai University, Annamalaiagar 608 002, Tamil Nadu, India

164 **Green synthesis of zinc oxide nanoparticles:
Exploring catalytic and antibacterial potential**



N P Patil, D S Gaikwad, S D Shinde, S D Ghatage & K A Undale*

Department of Chemistry, Padmabhushan Dr. Vasanttraodada Patil, Mahavidyalay,
Tasgaon, Sangali 416 405, Maharashtra, India

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