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Indian Journal of Chemistry



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Employed a fourth-order Redlich-Kister polynomial equation for accurate computation, unraveling the complex interplay of excess and deviation properties.

0.75

FT-IR analysis at varied composition ratios unveiled the subtleties of intermolecular interactions, providing valuable information on types, strength, and temperature-dependent behaviors.

Investigated terpinolene, a-terpineol, and cresols' ternary mixtures, analyzing diverse physical properties to understand

- Discussed the nuanced impact of temperature on molecular interactions in ternary mixtures, offering insights into their evolving dynamics.
- Experimental measurements elucidated density, viscosity, refractive index, and speed of sound, contributing to a comprehensive understanding of ternary mixture behaviors.

Paras Patel* & Sangita Sharma

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intricate molecular interactions.

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Department of Chemistry, Indus Institute of Sciences, Humanities and Liberal Studies, Indus University, Ahmedabad 382 115, Gujarat, India 1083 (E)-3-(4-Hydroxyphenyl)-1-(4-methoxyphenyl)prop-2-en-1-one: DFT/TD-DFT-based investigations with distinct solvents and *in silico* ADME profiling



Sümeyya Serin

Inonu University, Scientific and Technological Research Center, 44280, Malatya, Turkey

1096 Synthesis, characterization, *in silico* anti-ovarian cancer activity and quantum chemical calculations of 3-β-(2-(6-methoxynaphthalene-2yl)propionoxy)stigmast-5-en



Rohit Prakash, Arun Sethi, Sanjay Srivastava & Ranvijay Pratap Singh*

Department of Applied Science and Humanities, Faculty of Engineering and Technology, University of Lucknow, Lucknow 226 031, India 1102 Synthesis, characterization and evaluation of *in vitro* anticancer potential of novel fluorinated 5benzylidene-3-ethyl-2-(2-methyl-3-trifluoromethylphenylimino)-thiazolidin-4-one derivatives: Comparison of reflux and ultrasonic conditions for Knoevenagel reaction



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1112 FeVO₄ nanoparticles: Powering synergistic hetero-Fenton photodegradation of methyl violet and enabling green chemical synthesis $FeVO_4$ nanoparticles are an excellent hetero-Fenton catalyst for treating methyl violet dye effectively within 1 h under UV-A light. Moreover, the remarkable solid acidic nature of nano iron vanadate's catalytic activity is suitable for the synthesis of enones and sulphonamides.



S Thillainatarajan, L Firthawsha Yasmin, A Shalini, K Deepa, Krishnakumar Balu, I Muthuvel, Sabah Ansar, T Rajachandrasekar, G Thirunarayanan & S Sivaselvan*

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1121 Platinum(II) complexes of S-benzyldithiocarbazate based Schiff base ligand: Green synthesis, characterization, cytotoxic and antioxidant assay



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1130 Synthesis and characterization of some novel *N*substituted derivatives of 3-(benzo[b]thiophen-2yl)-5-(4-(substituted) phenyl)-4,5-dihydro-1*H*-pyrazole and its pharmacological studies

A new series of N-substituted pyrazoline derivatives bearing 2chloro acetyl **3a-g** and benz imidazole thioether moiety **4a-g** have been synthesized from substituted benzaldehyde and 2-acetyl benzo thiophene. Most of the compounds (**3e**, **4a**, **4b**, **4c**, **4e**, **4f**, and **4g**) show a fair degree of potent, anti-oxidant, anti-inflammatory, cytotoxic properties and antimicrobial activity.



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1141 Ultrasound-assisted synthesis of 3,4-dihydropyrimidine-2(1*H*)-ones catalyzed by nanocomposites: An efficient and green approach



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1155 Synthesis and molecular docking studies of 3-methyl-1,4-diarylazetidin-2-ones



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