

# Indian Journal of Chemistry

VOL. 62

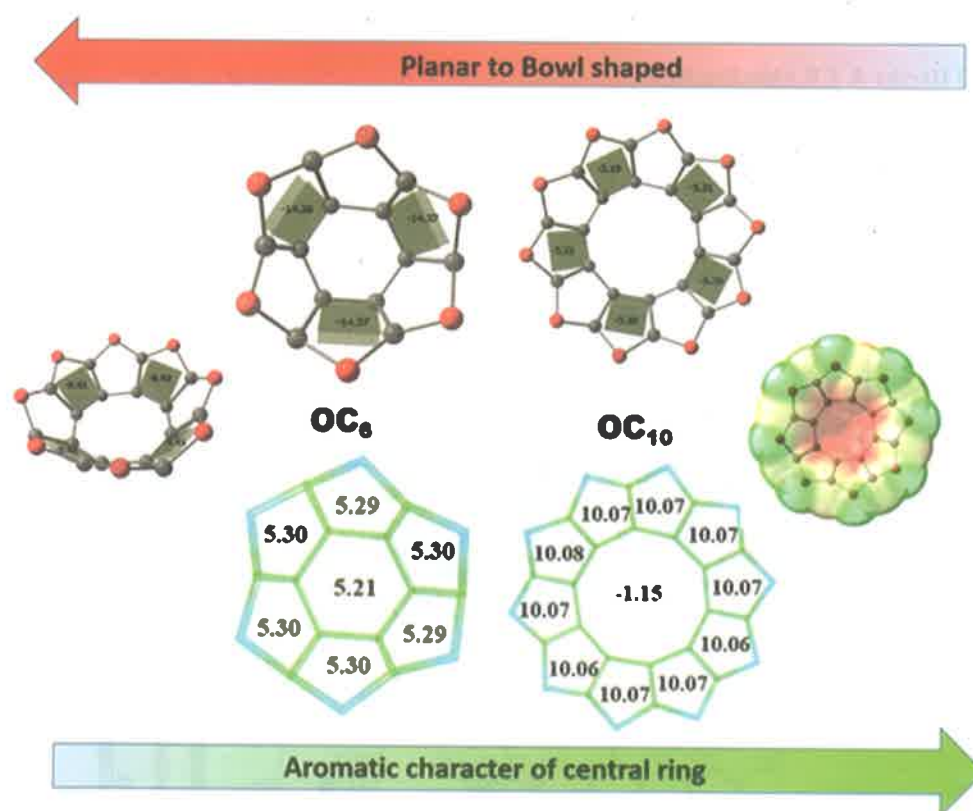
NUMBER 12

DECEMBER 2023

## CONTENTS

### Papers

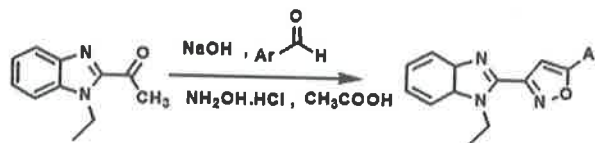
- 1239 Non-linear optical and electronic properties of oxa[n]circulenes: A theoretical insight



Vipin Kumar, Raj Kamal & Prabhakar Chetti\*

Department of Chemistry, National Institute of Technology (NIT), Kurukshetra 136 119, Haryana, India

- 1247 **Synthesis, molecular docking, molinspiration and anti-oxidant studies of novel N-ethylbenzimidazolyl-isoxazole derivatives**

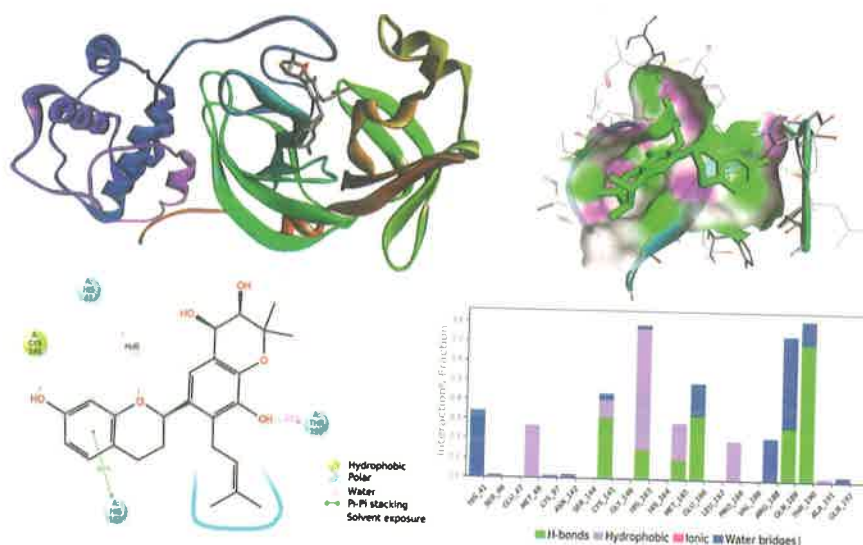


Docking Score (Kcal/mol)		Antioxidant Activity IC <sub>50</sub> Value (µM)		Molinspiration analysis	
2a	-7.9	2a	297	• Molecular properties	
2b	-7.7	2b	135	• Bioactivity	
2c	-7.8	2c	351		
2d	-7.7	2d	190		

J Harsha & T F Abbs Fen Reji\*

Department of Chemistry and Research Centre, Nesamony Memorial Christian College, Marthandam, Tamil Nadu 629 165, India (Affiliated to Manonmaniam Sundaranar University, Tirunelveli 627 012, Tamil Nadu, India)

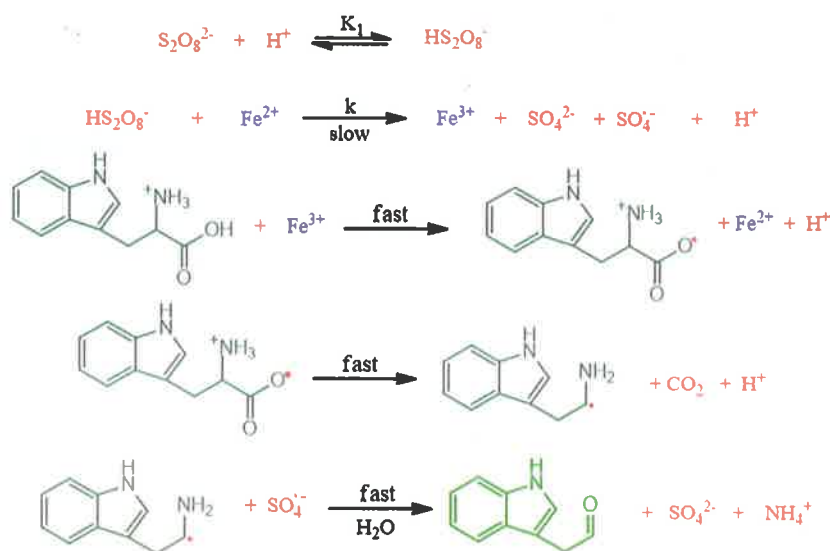
- 1252 **Virtual screening and molecular docking study of some naturally available phytochemicals against SARS-CoV-2**



Avishek Dey, Iqrar Ahmad, Keshab Mondal, Rathin Jana, Harun Patel & Soumen Mistri\*

Department of Chemistry, Ramananda Centenary College, Laulara 723 151, Purulia, West Bengal, India

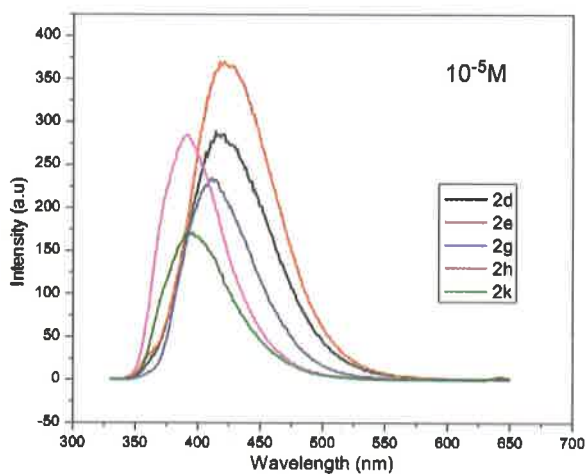
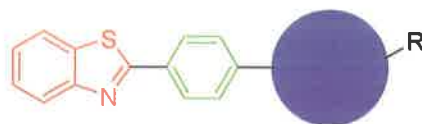
1268 Role of surfactants on Fe(II) catalyzed L-tryptophan oxidation by persulfate



Abhishek Srivastava, Madhav Krishna Goswami, Krishna Srivastava & Neetu Srivastava\*

Department of Chemistry, GLA University, Mathura 281 406, Uttar Pradesh, India

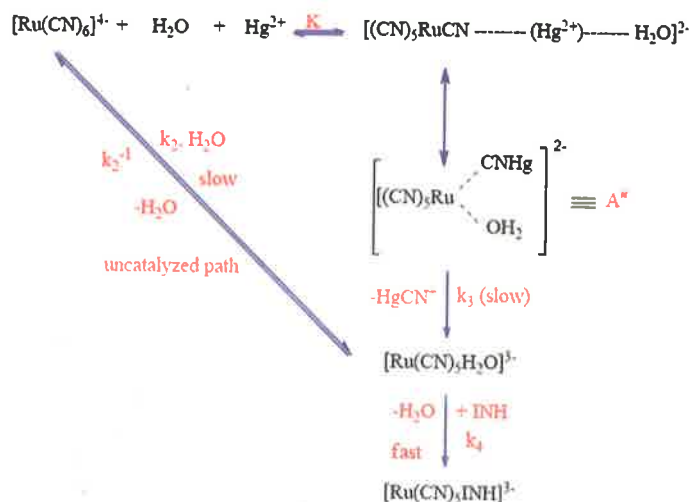
1276 Synthesis and fluorescent properties of some benzothiazole derivatives synthesized via Suzuki cross coupling reaction



Nguyen Hien, Nguyen Van Dat, Nguyen Duc Du, Nguyen Thi Ngoc Mai, Nguyen Thi Thu Hien & Duong Quoc Hoan\*

Department of Chemistry, Hanoi National University of Education, Hanoi, 100000 Vietnam

- 1282 Kinetics and mechanistic investigation of persulfate anion-mediated oxidation of hexacyanoruthenate(II) in aqueous medium



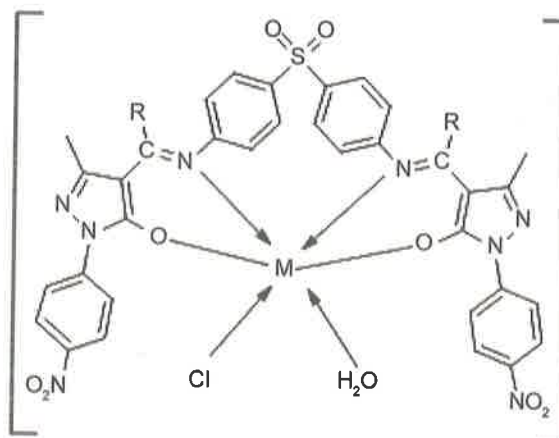
Rate of Reaction (at lower  $[\text{Ru}(\text{CN})_6^{4-}]$ )  
 $\text{Rate} = k_{\text{obs}} [\text{Ru}(\text{CN})_6^{4-}]$   
 Where,  $k_{\text{obs}} = k_3 K [\text{Hg}]^{2+} + k_2$

Rate of Reaction (at higher  $[\text{Ru}(\text{CN})_6^{4-}]$ )  
 $\text{Rate} = k_2 [\text{Ru}(\text{CN})_6^{4-}] + k_3 [\text{Hg}^{2+}]$   
 Where,  $k_{\text{obs}} = k_3 K [\text{Hg}]^{2+} + k_2$

Ruchi Singh, Abhishek Srivastava, Rupal Yadav, Chinki Gangwar, Bushra Yaseen, Indresh Kumar & Radhey Mohan Naik\*

Department of Chemistry, Lucknow University, Lucknow 226 007, Uttar Pradesh, India

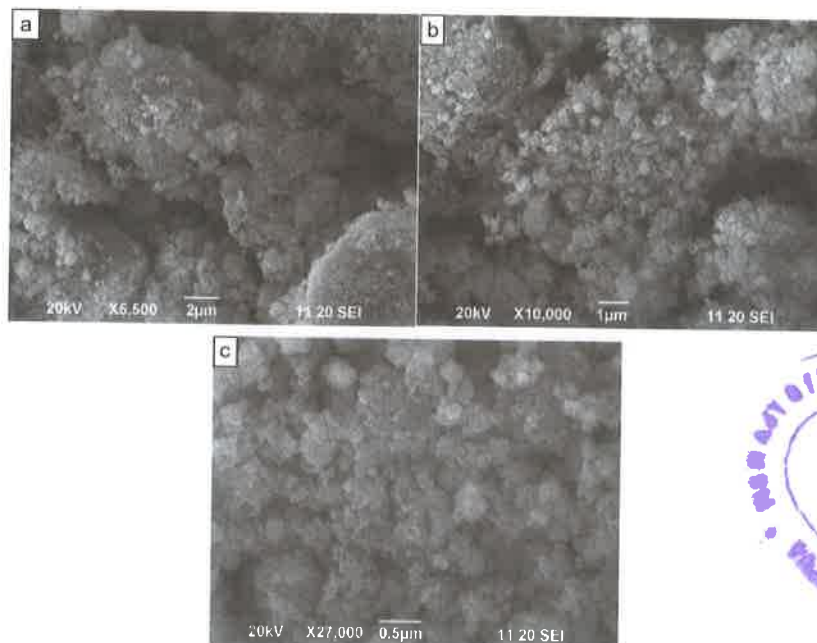
- 1289 Sulpha drugs based heterochelates: Synthesis, spectroscopic, thermal and *in vitro* biological studies



Darshan Jani\* & Maulik Raja

Noble Science College, Noble University, Bhesan Road, Bamangam, Junagadh 362 310, Gujarat, India

- 1298 Electrocatalytic activity of Ni/Co<sub>3</sub>O<sub>4</sub> obtained by span-60 sol-gel route for oxygen evolution in 1M KOH at 25°C

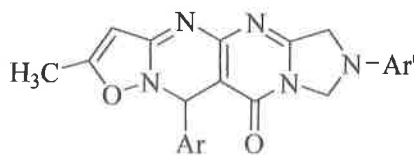


Basant Lal\*, Brajesh Gangwar & Pankaj Chauhan

Department of Chemistry, Institute of Applied Sciences and Humanities, GLA University, Mathura 281 406, India

- 1303 Synthesis and antimicrobial evaluation of imidazo-[1',5':1,2]pyrimido[4,5-d]isoxazolo[2,3-a]pyrimidin-10-ones

Synthesis and antimicrobial evaluation of imidazo-[1',5':1,2]pyrimido[4,5-d]isoxazolo[2,3-a]pyrimidin-10-ones has been achieved from readily accessible starting materials in good yields. The newly synthesized title compounds 5a-h have been evaluated for their *in vitro* antimicrobial activity.



5a-h

Rella Sanjeev\*, P V Dongarkadekar & Mahesh Bapurao Swami

Department of Chemistry, Nethaji Subhash Chandra Bose Arts, Commerce and Science College, Nanded 431 513, India (Swami Ramanand Teerth Marathwada University, Nanded)

- 1313 Annual Index

Authors for correspondence are indicated by (\*)