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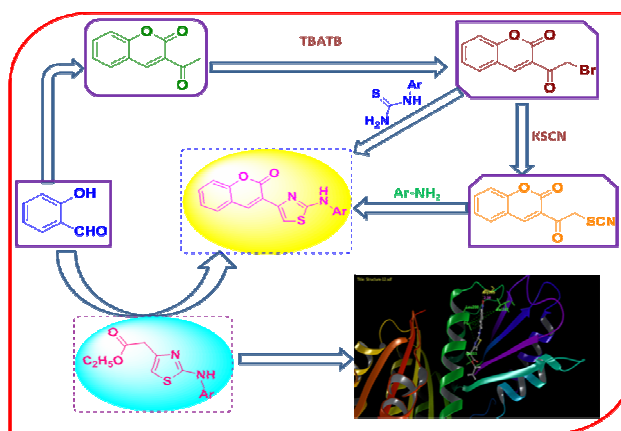
Papers

- 87** **Synthesis, characterization and antitubercutic evaluation of conjugates of ciprofloxacin/moxifloxacin and fluorescent coumarins** Synthesis and characterization of conjugates of fluorescent coumarins with the antibacterial drugs ciprofloxacin and moxifloxacin has been achieved. The conjugates retain the antitubercutic activity of the parent drugs and the pharmacophore of the drugs does not quench the fluorescence characteristics of the coumarin units. The drug-coumarin conjugates can cross cell-wall barriers to enter bacterial cells. And will be helpful in tracking of the drug molecules in live cells.

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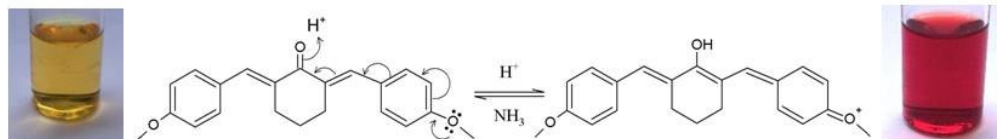
- 96** **Synthesis, anti-microbial activity and docking studies of 3-(2-(phenylamino)thiazol-4-yl)-2H-chromen-2-ones and ethyl 2-(2-(phenylamino)thiazol-4-yl)acetates** Different approaches for the synthesis of a series of 3-(2-(phenylamino)thiazol-4-yl)-2H-chromen-2-ones **5a-h** is described. Also, **5a-h** can be prepared by the reaction of salicylaldehyde with ethyl 2-(2-(phenylamino)thiazol-4-yl)acetates **6a-h** which in turn are prepared by the reaction of ethyl 4-chloroacetate with phenylthioureas. All the compounds **5a-h** and intermediates **6a-h** have been screened for their antimicrobial activities such as anti-bacterial and anti-fungal and supported by molecular docking studies.



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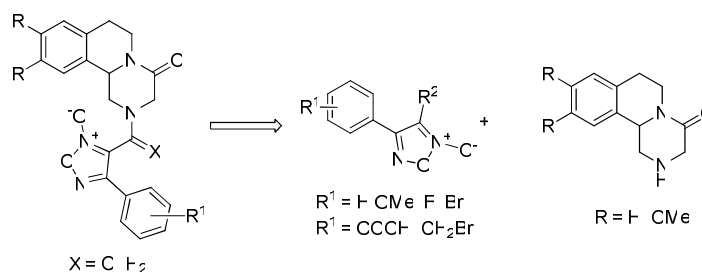
- 106 Synthesis and study of spectroscopic behaviour of cyclohexanone based bis-chalcones** Seven cyclohexanone based bis-chalcones have been prepared and their photophysical properties investigated. Derivatives 2,6-bis-(4-methoxybenzylidene)cyclohexanone **3** and 2,6-bis-(4-N,N-dimethylaminobenzylidene) cyclohexanone **4** show optical response to the change in pH. The results indicate the interaction of $-\text{OCH}_3$ and $-\text{N}(\text{CH}_3)_2$ substituted bischalcone with proton.



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- 112 Synthesis and antischistosomal activity of new furoxan derivatives of praziquantel** A series of furoxan derivatives of Praziquantel have been synthesized and evaluated for antischistosomal activity. All the compounds have been tested *in vitro* against adult as well as immature male *Schistosoma mansoni*. Compounds **15** and **18** show moderate activity against adult schistosomes. On immature worms, only compound **15** shows substantial activity whereas the standard drug PZQ is practically inactive at this stage.



Singam Naveen Kumar, Partha Sarathi Sadhu, Kirti Kumari Sharma, Livia Pica-Mattoccia, Annalisa Basso, Donato Cioli & Vaidya Jayathirtha Rao*

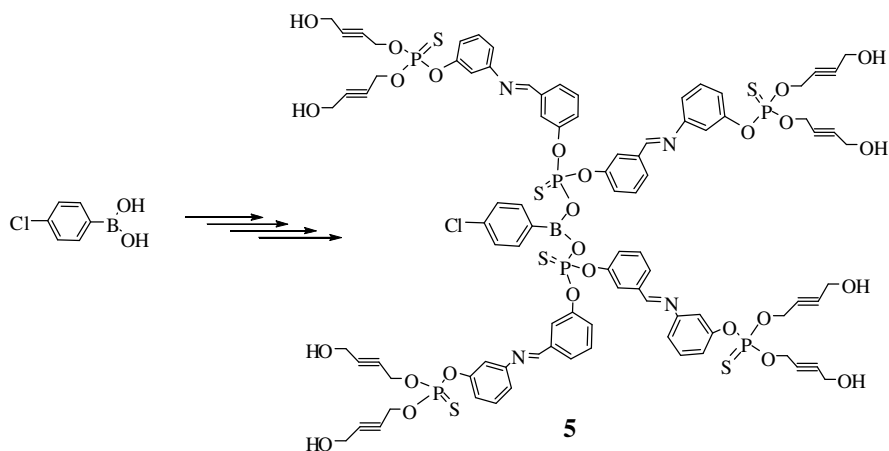
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- 120 Installation of biologically active pyrimidine moiety into pyridopyrimidine framework and evaluation of their antibacterial activities** Pyrido[2,3-*d*]pyrimidines **3** have been synthesized starting from 5-benzylidene barbiturate and malonitrile in presence of ammonium acetate. Installation of pharmacologically active pyrimidine moiety into pyridopyrimidine framework **3** has been accomplished by condensation of **3** with formic acid, acetic acid, urea, thiourea, formamide and hydrazine hydrate. The antibacterial activities of the synthesized compounds have also been evaluated.

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- 127 **Synthesis, spectral characterization, electron microscopic study and thermogravimetric analysis of phosphorus containing dendrimer with 4-chlorophenylboronic acid at the core** Synthesis of a novel phosphorus containing dendrimer **5** having 4-chlorophenylboronic acid at the core in moderate yield is accomplished in a step-by-step method. The structure of final dendrimer **5** is established by ^{31}P NMR, MALDI-TOF-MS, IR, ^1H , ^{13}C NMR and CHN analysis.



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