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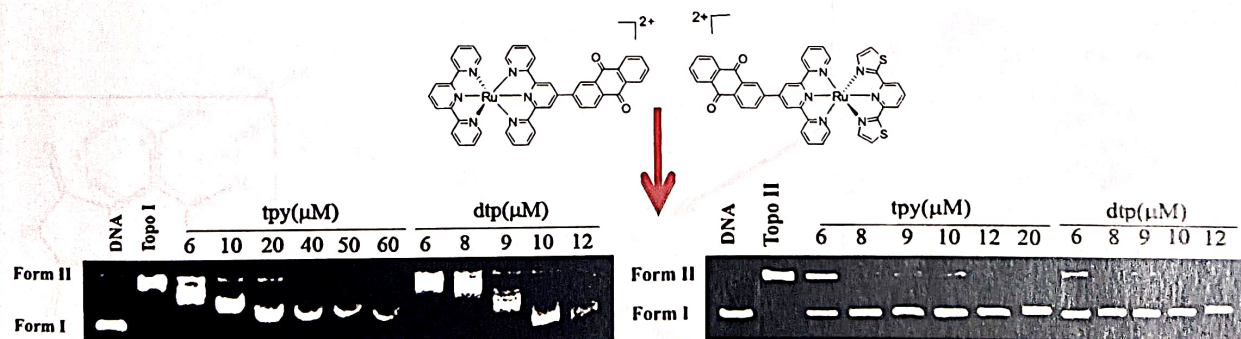
JUNE 2025

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Papers

557 **Synthesis, DNA binding, and dual topoisomerase I/II inhibitory activities of $[\text{Ru}(\text{tpy})(\text{adtpy})]^{2+}$ and $[\text{Ru}(\text{dtp})(\text{adtpy})]^{2+}$**

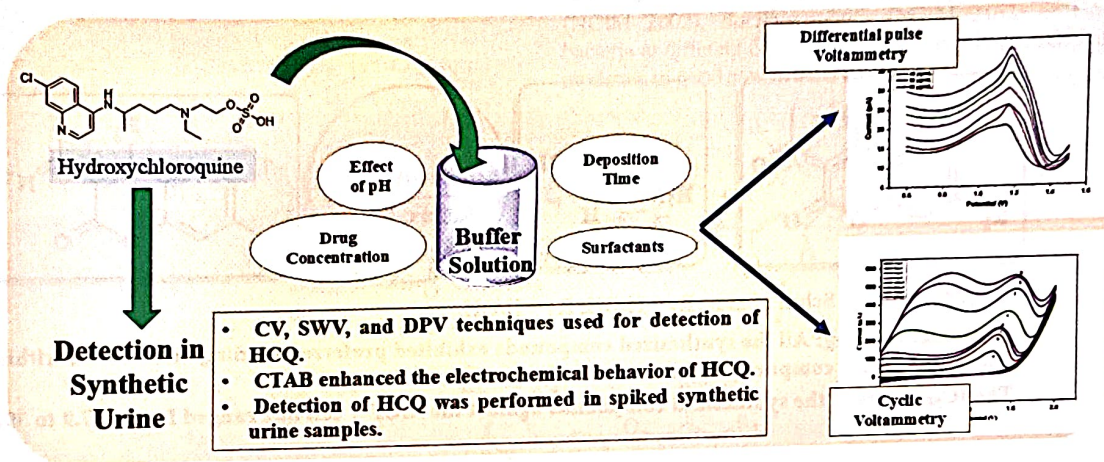
Two ruthenium (II) complexes $[\text{Ru}(\text{tpy})(\text{adtpy})]^{2+}$ (1) and $[\text{Ru}(\text{dtp})(\text{adtpy})]^{2+}$ (2) have been synthesized and characterized. Results suggest that the two complexes acted as efficient dual inhibitors of topoisomerases I and II by interference with the DNA religation and exhibit antitumor activity against BEL-7402, HeLa, MCF-7 and HepG2 tumor cells. Flow cytometry analysis shows an increase in the percentage of cells with apoptotic morphological features in the sub-G1 phase for Ru (II) complexes. Apoptosis induction has also been observed from AO/EB staining assay and Annexin V-FITC/PI double staining.



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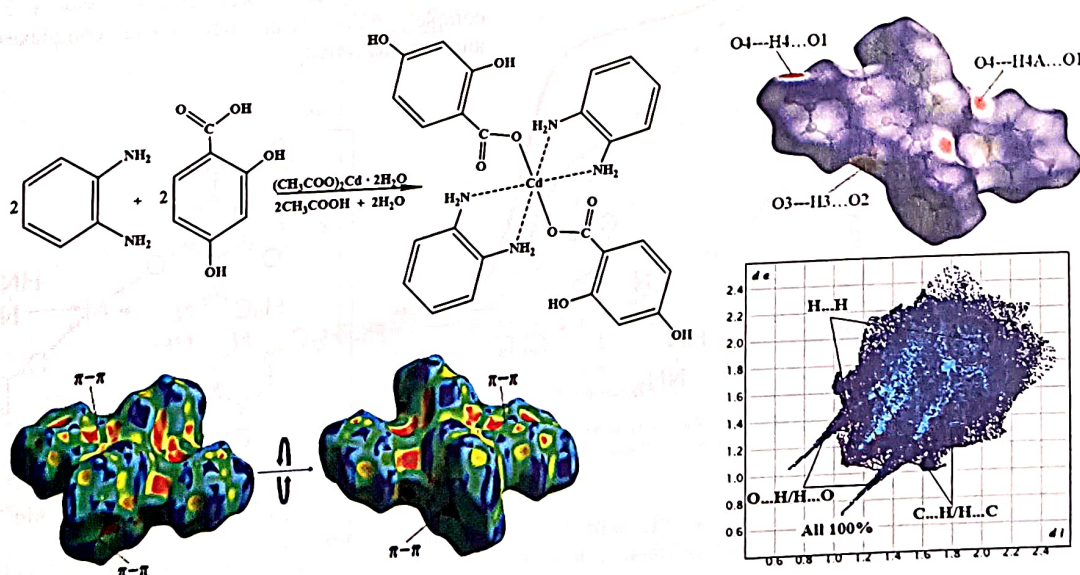
583 Voltammetric determination of the antimalarial drug hydroxychloroquine in synthetic urine sample



Pritimala Sahu, Nikita Raghuvanshi, Bhanushree Gupta*, Jahangir Ahmad Rather, Namrata Singh & Kallol K Ghosh

School of Studies in Chemistry, Pt. Ravishankar Shukla University Raipur 492 010 (CG), India

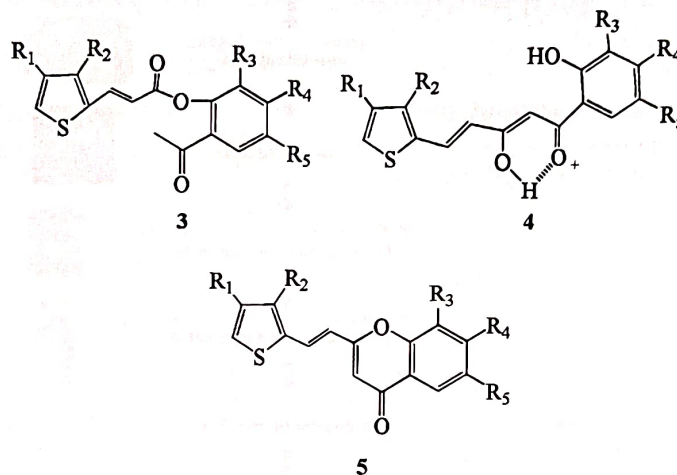
591 Synthesis, crystal structure and Hirshfeld surface analysis of the complex compound bis(*o*-phenylenediamine-*N,N'*)-bis(2,4-dihydroxybenzoato-*O*)-cadmium(II)



A A Ahatov, Kh Kh Turaev, J M Ashurov, Kh R Tillaev, J R Suyunov & Nomozov A K*

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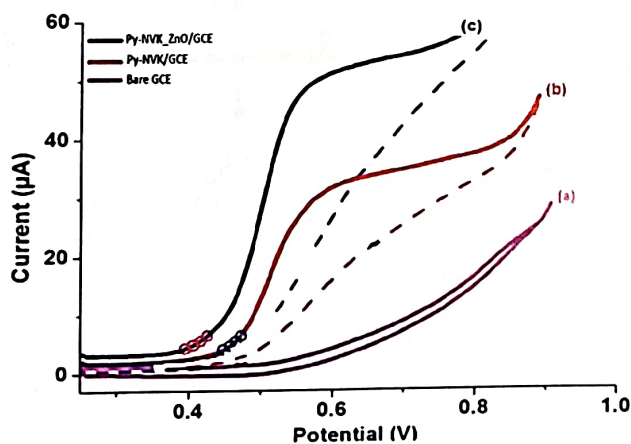
- 619 **Synthesis, characterization and antibacterial study of novel 2-((E)-2-(thiophen-2-yl)vinyl)-4H-chromen-4-ones** A novel series of 2-((E)-2-(thiophen-2-yl)vinyl)-4H-chromen-4-ones have been synthesized, characterized and screened for antibacterial activity against *Pseudomonas fluorescens* (NCIM 2059), *Escherichia coli* (NCIM 2576) as Gram negative and *Staphylococcus aureus* (NCIM 2602), *Bacillus subtilis* (NCIM 2162) as Gram positive bacteria at different concentrations and they have been found to show moderate to good antibacterial activity.



R S Endait

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- 627 **Cyclic voltammetric analysis of pyrrole-N-vinyl carbazole copolymer and ZnO nanocomposite for the sensing of 6-TG**



Current-Voltage analysis of Neat (Py-NVK) and ZnO nanocomposite (Py-NVK_ZnO) modified GCE towards 6-thioguanine anti-cancer drug

Current-Voltage analysis of Neat (Py-NVK) and ZnO nanocomposite (Py-NVK_ZnO) modified GCE towards 6-thioguanine anti-cancer drug

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