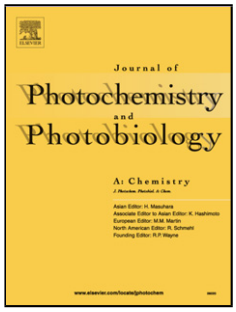

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Synthesis, characterization and photoluminescence of substituted terpyridine compounds and their molecular docking studies with bovine hemoglobin

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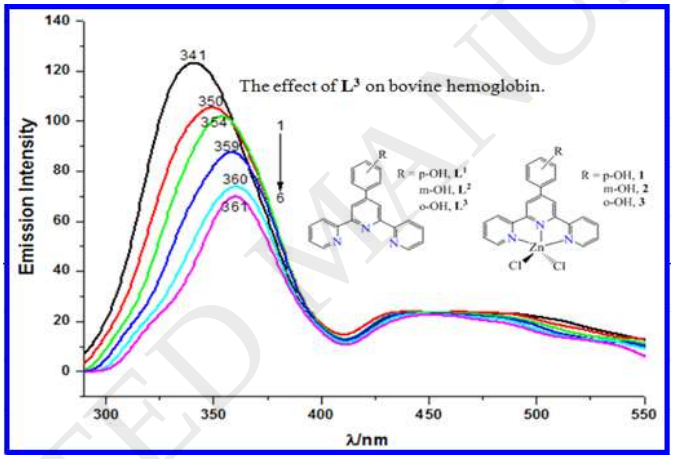
Graphical Abstract



Six compounds *p*-hydroxyl-4′-phenyl-terpyridine (**L**^{1}), *m*-hydroxyl-4′-phenyl-Terpyridine (**L**^{2}) *o*-hydroxyl-4′-phenyl-terpyridine (**L**^{3}) [$Zn(Cl)_2L^1$] (**1**), [$Zn(Cl)_2L^2$] (**2**) and [$Zn(Cl)_2L^3$] (**3**) have been synthesized and characterized by IR, ^{1}H NMR, elemental analysis and single crystal X-ray diffraction, along with their photoluminescent properties. The bindings of the compounds with bovine hemoglobin (BHb) were also studied.

Highlights For

- Synthesis, characterization and photoluminescence of
- substituted terpyridine compounds and their molecular docking
- studies with bovine hemoglobin
- • Six compounds were synthesized and their crystal structures were determined.
- • All compounds show interesting photoluminescent properties.
- • The fluorescence of bovine hemoglobin was reduced upon the addition of the compounds.
- • There are strong interactions between the compounds with bovine hemoglobin.