

Synthesis, Characterisation and Bioconjugation of Rare earth complexes embedded Silica nanoparticles [MRP(S)-0241/12-13/KLKE002/UGC-SWRO]

ABSTRACT

Two Rare Earth (RE) luminescent complexes, Europium and Terbium complexes with the ligand Thenoyltrifluoroacetone (TTA) was synthesized by chemical precipitation method. The synthesized Eu-(TTA)₃ complex and Tb-(TTA)₃ complex was capped with Tetra Ethoxyorthosilane (TEOS). The optical properties of the complexes were characterized by UV-Visible spectra and Photoluminescence spectra. The FTIR analysis of the ligand and the complexes were also done. The antimicrobial analyses of the synthesized samples were done , and it was found that both complexes and the ligand itself exhibit high antimicrobial activity. Finally the complexes were conjugated with folic acid.

Abha.K
Assistant Professor
Post Graduate Department of Chemistry
Bishop Moore College
Mavelikara- 690110

