

## ASSESSMENT FOR STABILITY OF RARE EARTH COMPLEXES OF EU, LA AND YB WITH THEONYLTRIFLUOROACETONATE (TTA) - TAGGING OF INK IN FORENSIC PURPOSES

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*Complexes of rare earth elements Europium, Lanthanum and Ytterbium with theonyltrifluoroacetate (TTA) had been synthesized. These are chelated species and established as suitable taggant for different varieties of inks including those of security nature also. Identification and quantitative analytical determination of the elements in documents written/printed with tagged inks have bright application prospect in forensic purposes. Metal to composite stoichiometry studies in such species prepared in the laboratory about one year back had been carried out by Neutron Activation Analysis (NAA). Results established conformity with the theoretical values. Supporting IR spectral, TLC and HPTLC studies confirmed that stabilities are not affected on retention in ordinary conditions of temperature and humidity, at least for a period of about one year after syntheses.*

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