

Abstract

Zinc metal complexes are both chemically active and medically important compounds. Four zinc metal complexes with Trans-1, 2 cyclohexylenedinitrilotetraacetic acid were synthesized by both Reflux and Sonochemical methods. Confirmation of Zinc complexes was done by determining their melting points and checking their solubilities in various solvents. Characterization was done by FTIR, UV-Vis and Fluorescence spectroscopy. FTIR spectra confirmed the synthesis of all the metal complexes as peaks showed marked differences in their positions and values. Luminescence and absorption were also checked for various samples in polar and non-polar solvents whether the obtained products were photoluminiscent or not. It supported the fact that Zinc metal complexes can be used in various applications of the luminescence phenomena.