

Abstract

Isindigo, a well-known industrial dye, are a class of heterocyclic conjugated materials that have acquired great importance as a promising conducting material for rising electronic applications. Small molecules based on isindigo are easier to synthesize and purify than polymeric materials. They also have fewer batch-to-batch variations, making them a better choice for fabrication reproducibility and consistency in production runs or manufacturing processes. In this research, isindigo based conjugated materials have been synthesized using green, facile and economical synthetic strategies. The confirmation and purity of synthesized products have been confirmed by studying their photophysical properties, such as UV-Visible and Photoluminescence spectrophotometer. Fourier-transform infrared spectroscopy (FTIR), Gas chromatography–mass spectrometry (GC-MS) and Nuclear Magnetic Resonance (NMR) are also used for characterization purposes.