

## FLUORESCENCE AND QUANTUM YIELD STUDIES OF NEW SWIR EMITTING RHODINDOLIZINE DYES

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The design and characterization of organic dyes emitting in the near infrared (NIR) and short-wave infrared (SWIR) regions are of a great interest to the research community for several applications including bio-imaging. These abstract reports the results of photo-physical studies of a set of four newly-designed and synthesized SWIR emissive RhodIndolizine dyes. All the dyes were found to absorb and emit well within the SWIR domain (reaching emission maximum up to 1256 nm) with an onset beyond 1400 nm and Stokes shifts varying between 140-170 nm. The quantum yields of these dyes were estimated relative to the emission standard of IR1061 with a quantum yield of 0.0059 or 0.59% in dichloromethane. Further, nanoencapsulation studies in a water-soluble surfactant demonstrate their efficiency towards biological imaging.