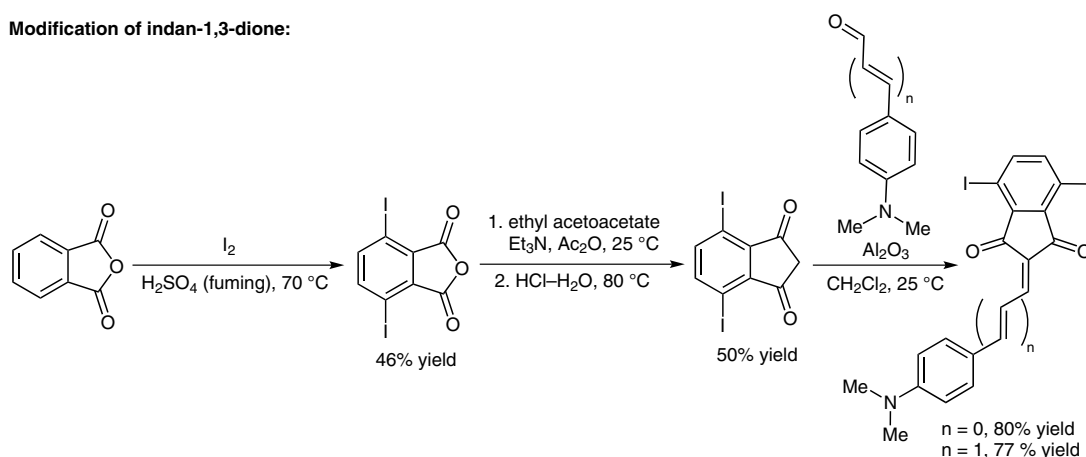
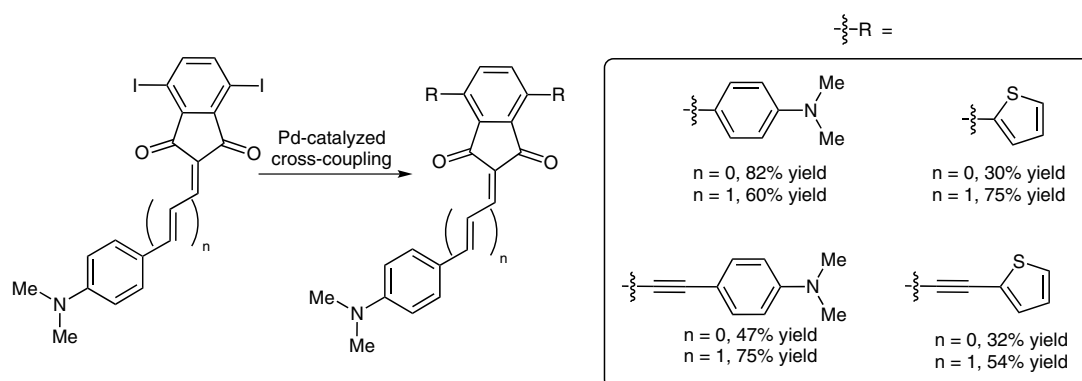


Push–Pull Chromophores from Indan-1,3-dione

Modification of indan-1,3-dione:



T-Shaped chromophore synthesis:



Significance: The synthesis of T-shaped push–pull chromophores based on indan-1,3-dione as an electron acceptor is presented. The two donor moieties that comprise the T-shaped architecture are installed via the Knoevenagel condensation of 4,7-diiodoindan-1,3-dione with an aryl aldehyde, followed by palladium-catalyzed cross-coupling of the iodides with *N,N*-dimethylaniline or thiophene-containing substituents.

Comment: The optical and electronic properties of the synthesized T-shaped chromophores are extensively studied by UV/Vis absorption spectroscopy and calculations. Their non-linear optical properties are also examined through theoretical calculations.