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

Modification of Indian-1,3-dione:

![Chemical reaction diagram]

T-Shaped chromophore synthesis:

![Chemical reaction diagram]

**Significance:** The synthesis of T-shaped push–pull chromophores based on Indian-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.

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*Synfacts* 2014, 10(1), 0035 Published online: 13.12.2013

DOI: 10.1055/s-0033-1340390; Reg-No.: S14613SF