Electronic Supplementary Material (ESI) for Materials Chemistry Frontiers.

Alternating Donor-Acceptor Indigo-Cyclopentadithiophene Copolymers: Competition between Excited State Conformational Relaxation, Energy Transfer and Excited State Proton Transfer

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Supporting information

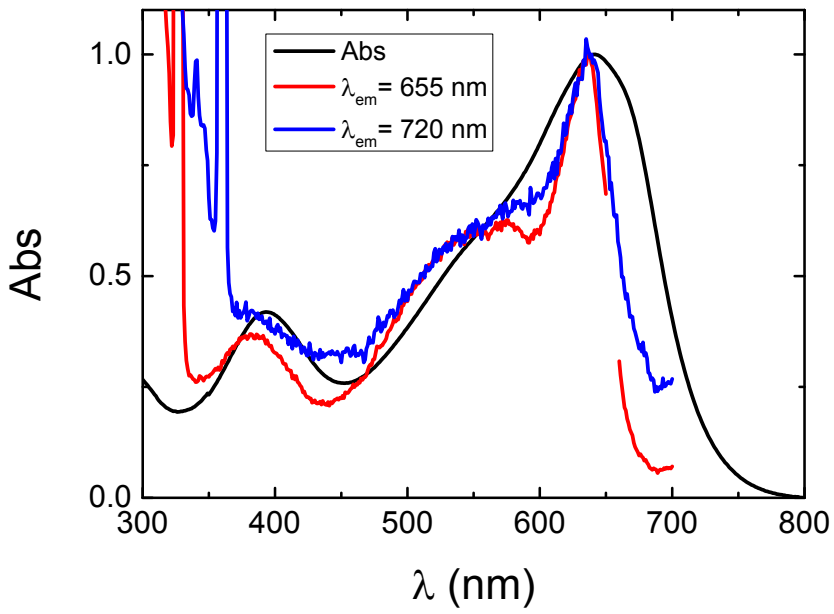

Figure S1– Normalized absorption and fluorescence excitation spectra for the copolymer ($IndC_{12}CPDT$) in toluene solution at 293 K.

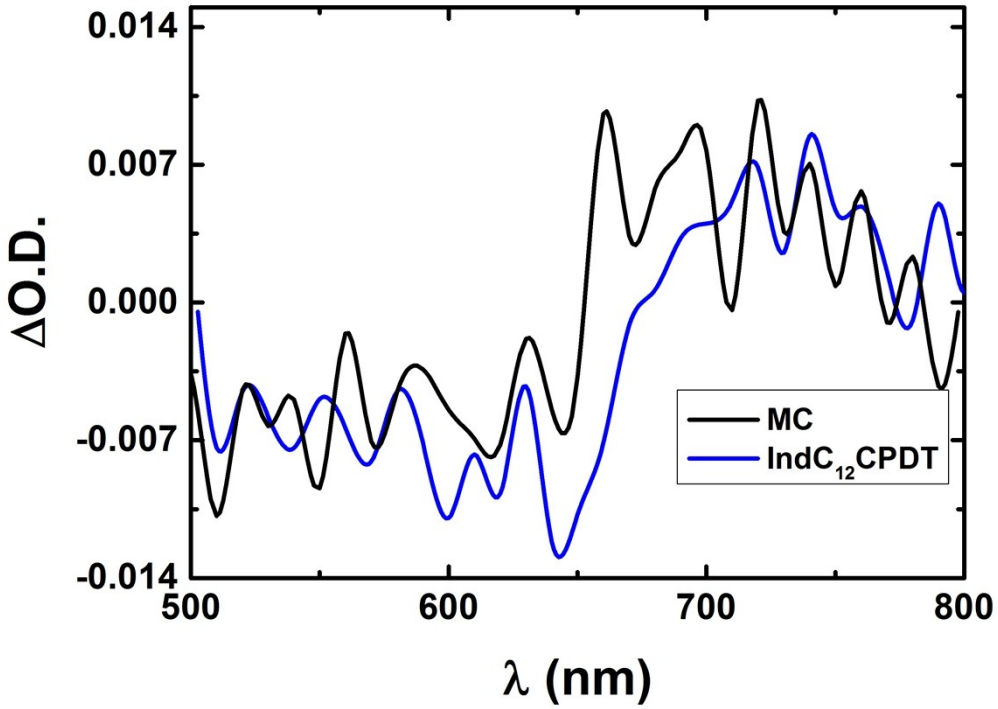

Figure S2- Normalized transient singlet–triplet difference absorption spectra for the oligomeric model compound (MC) and copolymer ($IndC_{12}CPDT$) in degassed toluene solutions at T= 293 K.

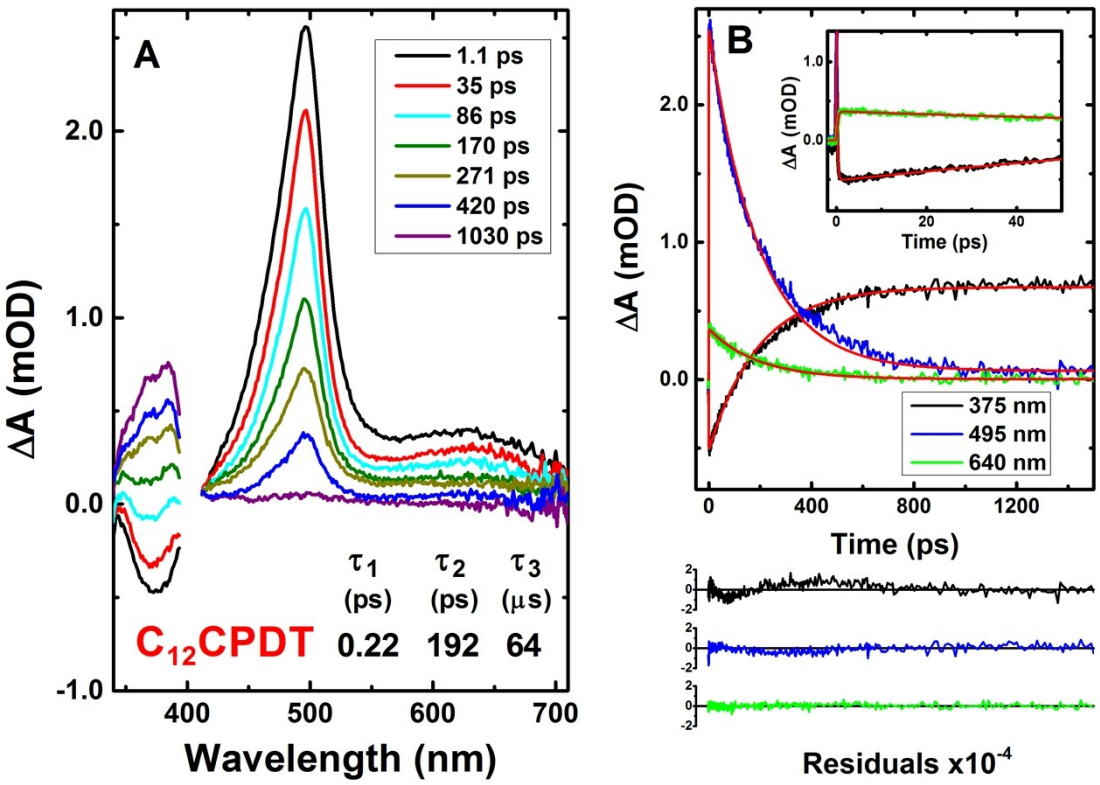

Figure S3- A) Time-resolved transient absorption data and lifetimes for C_{12}CPDT obtained with λ_{exc}= 310 nm in aerated dioxane solution at room temperature; together with (B) the representative kinetic traces with fits from the global analysis of the transient absorption data. For a better judgment of the quality of the fits the residuals are also presented.

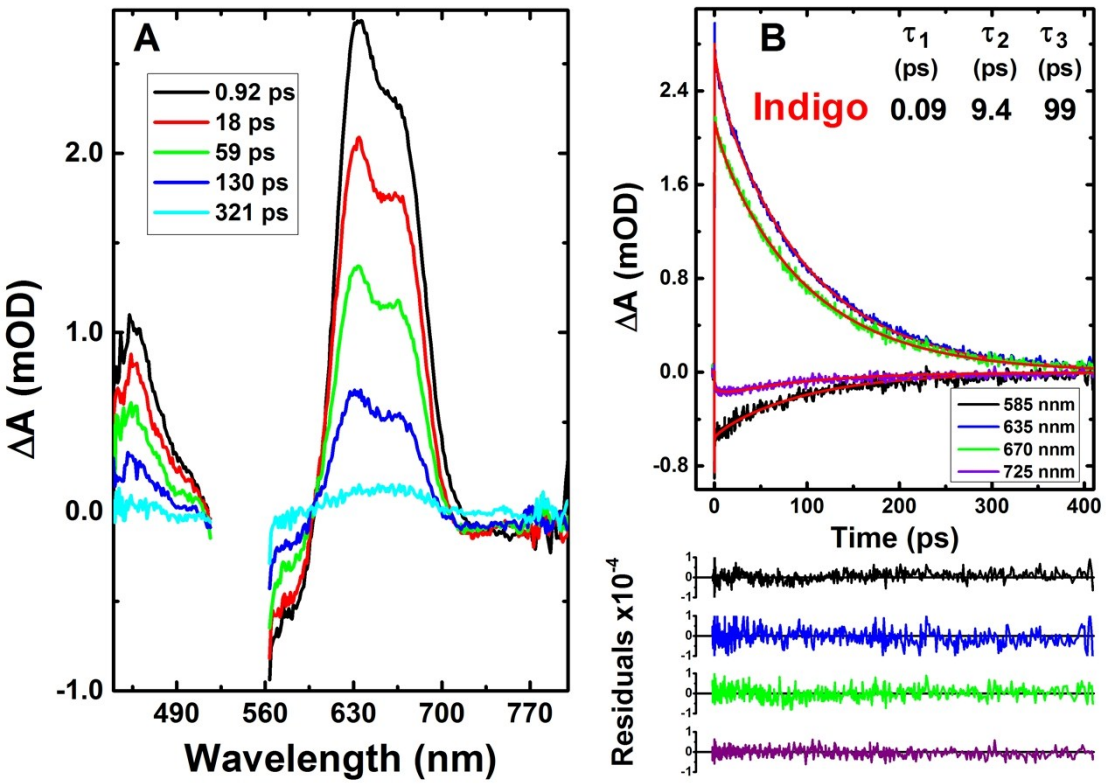

Figure S4- A) Time-resolved transient absorption data for Indigo obtained with λ_{exc}= 550 nm in aerated 2MeTHF solution at room temperature; together with (B) the representative kinetic traces with fits and lifetimes from the global analysis of the transient absorption data. For a better judgment of the quality of the fits the residuals are also presented.

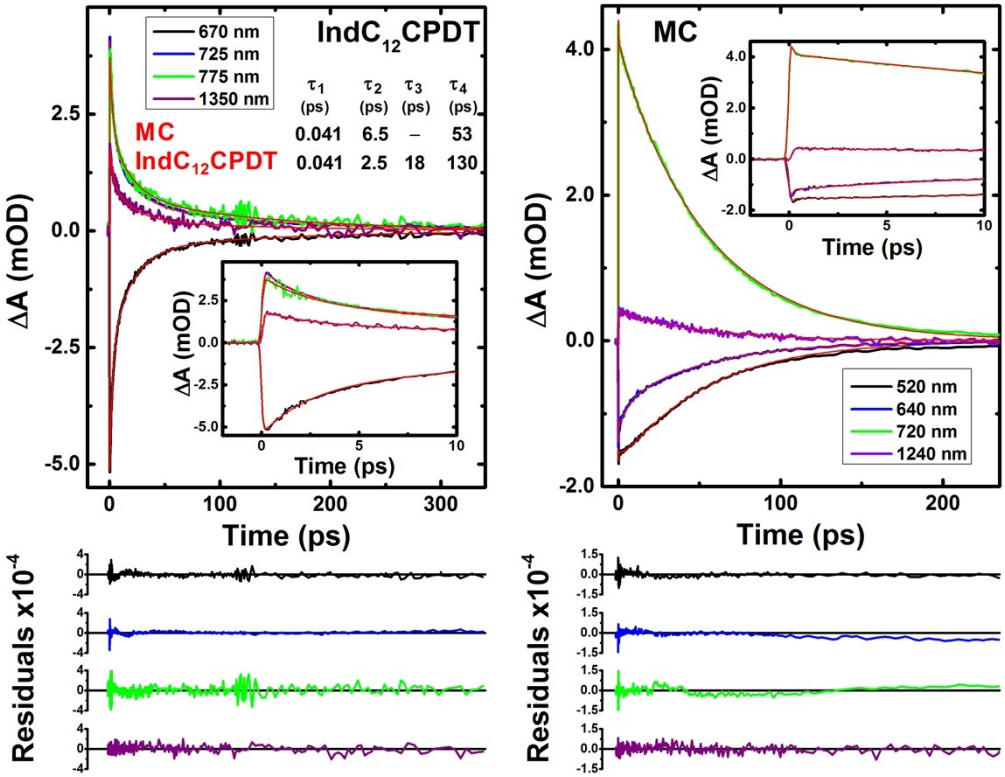

Figure S5- Representative kinetic traces with fits and results (lifetimes, τ_i) from the global analysis of the transient absorption data for $IndC_{12}CPDT$ and the model compound (MC) collected in toluene solution with λ_{exc}= 600 nm. Also shown as inset are the decays at shorter times. For a better judgment of the quality of the fits the residuals are also presented.