Influence of molecular distortion on the exciton quenching for quaterthiophene-terminated self-assembled monolayers on Au(111)

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Highlights

- We found *n*-parity-dependent lifetime τ for photoexcited 4T-$(CH_2)_n$S-SAMs on gold.
- Independent of *n*, the quenching is due to an excitation energy transfer mechanism.
- The *n* parity dependence of *τ* results from conformation change of -$(CH_2)_n$S- chains.
- Importance of molecular design even in aliphatic parts for organic device is shown.