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

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#### ACCEPTED MANUSCRIPT

## **Highlights**

- We found *n*-parity-dependent lifetime  $\tau$  for photoexcited 4T-(CH<sub>2</sub>)*n*S-SAMs on gold.
- Independent of n, the quenching is due to an excitation energy transfer mechanism.
- The *n* parity dependence of  $\tau$  results from conformation change of -(CH<sub>2</sub>)<sub>n</sub>S- chains.
- Importance of molecular design even in aliphatic parts for organic device is shown.



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