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## **Supporting Information**

Which Isomer is Better for Charge Transport: *Anti*or *Syn-*?

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**Scheme S1** The synthetic routes for *syn-***1** and *anti-***1**.

Br<sub>2</sub>, CH<sub>2</sub>Cl<sub>2</sub>
SCl<sub>2</sub>, Et<sub>2</sub>O
SCl<sub>2</sub>, Et<sub>2</sub>O
SCl<sub>2</sub>, Et<sub>2</sub>O
SCl<sub>2</sub>, Et<sub>2</sub>O
SCl<sub>2</sub>, Et<sub>2</sub>O
Syn-2

$$S = \frac{1}{8} \text{BuLi}, \text{Et}_2 \text{O}}{8} \text{Suli}, \text{Et}_2 \text{O}}$$
Sulli, Et<sub>2</sub>O
Sulli,

**Scheme S2** The synthetic routes for *syn-2* and *anti-2*.

TMS—H 
$$Pd(PPh_3)_2Cl_2$$
  $H_3CS$   $I_2$   $SCH_3$   $I_2$ 

Scheme S3 The synthetic routes for *anti-*3.

**Scheme S4** The synthetic routes for *syn*-ADT derivatives (*syn*-4a and *syn*-4b).

*syn-***5a**: R=*i*-Pr<sub>3</sub> *syn-***5b**: R=*i*-Bu<sub>3</sub> *syn-***5c**: R=*n*-Bu<sub>3</sub>

Scheme S5 The synthetic routes for syn-5a, syn-5b, and syn-5c).

anti-6a: R=hexyl

anti-6b: R=3,7-dimethyloctyl

Scheme S6 The synthetic routes for anti-6a and anti-6b).

**Scheme S7** The synthetic routes for *syn-***7**.

**Scheme S8** The synthetic routes for *anti-*7.

**Scheme S9** The synthetic routes for *syn-9* and *anti-9*.