## **Electronic Supporting Information**

## Small band gap copolymers based on furan and diketopyrrolopyrrole for field-effect

## transistors and photovoltaic cells

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	oDCB	CHCl <sub>3</sub>	
	20 °C	20 °C	60 °C
Polymer	$E_{g,}(eV)$	$E_{g}(eV)$	$E_{g}(eV)$
FPF	1.52	1.52	1.55
ТРТ	а	1.56	1.58
FFF	1.43	1.47	1.50
FTF	1.45	1.46	1.48
TFT	1.43	1.44	1.47
<b>TTT</b> low $M_n$	1.39	1.38	1.43
<b>TTT</b> high $M_n$	1.37	1.35	1.36

**Table S1.** Onset of UV-vis absorption of the DPP-XYX polymers in oDCB and CHCl<sub>3</sub> solution at different temperatures.

<sup>*a*</sup> Not soluble

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**Figure S1.** Variable temperature UV-vis-nearIR absorption spectra recorded in CHCl<sub>3</sub> solution between 20 and 60 °C for the six DPP-XYX polymers.

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**Figure S2**. *p*-Type transfer curves of FETs made with the four furan based DPP-XYX polymers. Drain current is normalized with respect to the channel length for direct comparison.



**Figure S3**. *n*-Type transfer curves of FETs made with the four furan based DPP-XYX polymers. Drain current is normalized with respect to the channel length for direct comparison.