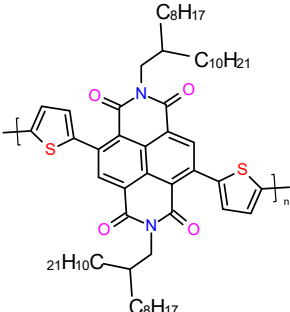
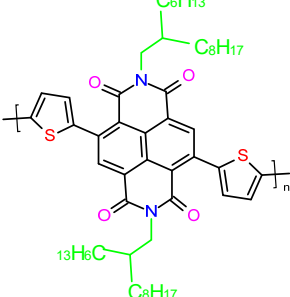
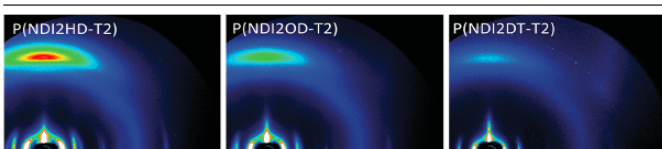
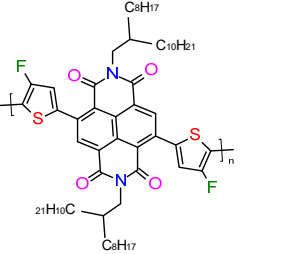
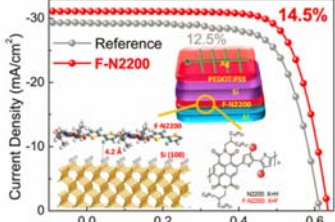
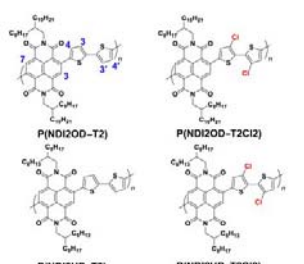
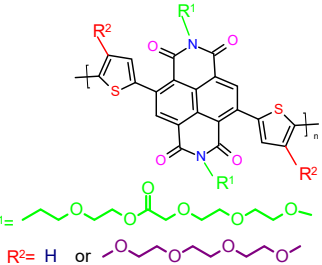
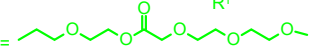

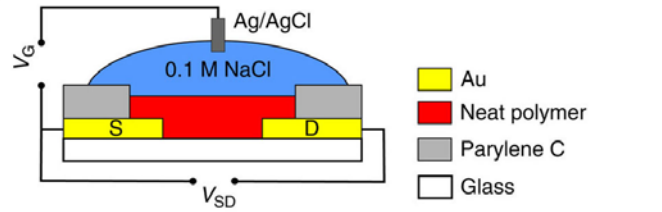


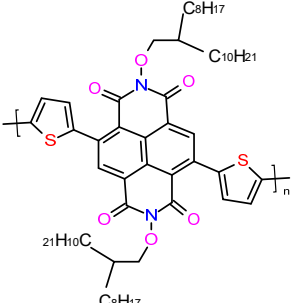
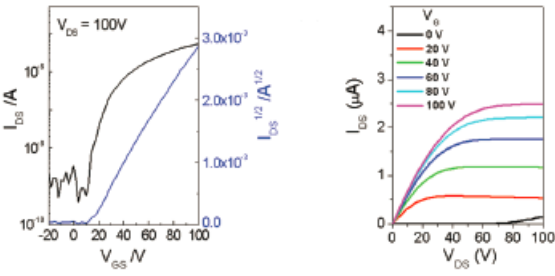
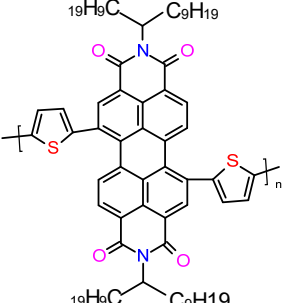
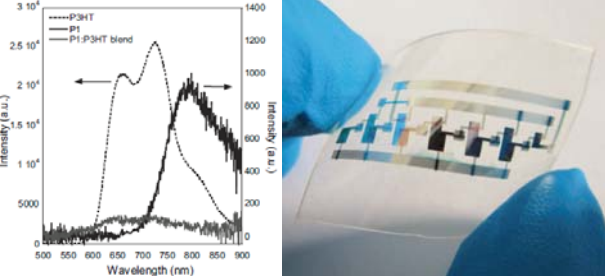
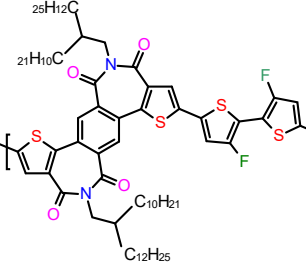
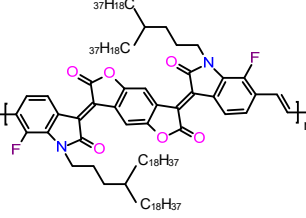
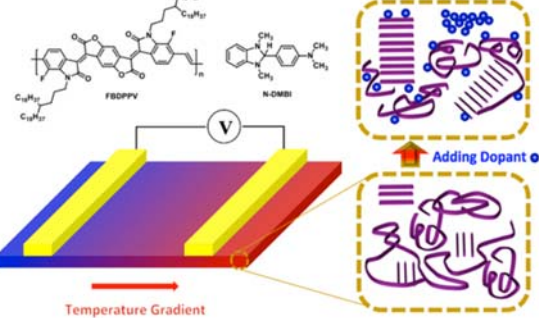
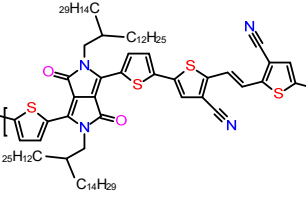
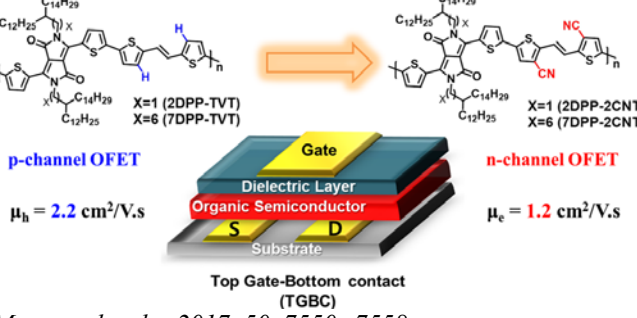
(N-Type Polymers)



J.Mater.Chem.C., 2017, 5, 9559

Common Name	Structure	Remark																
<p>N2200 PNDI-2T P(NDI2OD-T2) CAS#1100243-40-0</p> <p>OS0400 IR-OS0400</p>		<p>Classic & Standardized</p> <p>(1) Both regio-regular(OS0400) and regio-irregular(RI-OS0400) are available.</p> <p>(2) Molecular weight can be tuned to your specifications; Mn ~10K to 100K at your choice.</p>																
<p>N2300 P(NDI2HD-T2) CAS#145168-70-7</p> <p>1M_OS0707</p>		<table border="1"> <thead> <tr> <th>Polymer</th> <th>$\mu_{e,FET}$ (max)^{b)} [cm² V⁻¹ s⁻¹]</th> <th>$\mu_{e,FET}$ (avg)^{c)} [cm² V⁻¹ s⁻¹]</th> <th>I_{on}/I_{off}</th> </tr> </thead> <tbody> <tr> <td>P(NDI2HD-T2)</td> <td>1.90</td> <td>1.78 ± 0.09</td> <td>6.63 × 10⁴</td> </tr> <tr> <td>P(NDI2OD-T2)</td> <td>1.22</td> <td>1.02 ± 0.15</td> <td>6.92 × 10⁵</td> </tr> <tr> <td>P(NDI2DT-T2)</td> <td>0.39</td> <td>0.32 ± 0.02</td> <td>1.80 × 10⁴</td> </tr> </tbody> </table>  <p>Adv. Funct. Mater. 2016, 26, 1543–1553</p>	Polymer	$\mu_{e,FET}$ (max) ^{b)} [cm ² V ⁻¹ s ⁻¹]	$\mu_{e,FET}$ (avg) ^{c)} [cm ² V ⁻¹ s ⁻¹]	I_{on}/I_{off}	P(NDI2HD-T2)	1.90	1.78 ± 0.09	6.63 × 10 ⁴	P(NDI2OD-T2)	1.22	1.02 ± 0.15	6.92 × 10 ⁵	P(NDI2DT-T2)	0.39	0.32 ± 0.02	1.80 × 10 ⁴
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<p>1M_F-N2200 PNDI-2FT P(NDI-2OD-T2F2) OS0400-F Also available: F-N2300 CI-N2200; CI-N2300</p>		 <p>ACS Nano, 2017, 11 (7), pp 7215–7222</p> 																
<p>P(gNDI-T2) OS0400-G</p> <p>Also available p(gNDI-gT2) OS0400-g</p>	 <p>R¹ =  R² = H or </p>	 <p>N-type organic electrochemical transistors with stability in water: DOI:1038/ncomms130066</p>																

(N-Type Polymers)

<p>P(NDIO2OD-T2) CAS#2173524-17-7 OS0177</p>		 <p><i>J. Mater. Chem. C., 2018, 6, 1349</i></p>																																							
<p>PDI-2T CAS#1189046-69-2 OS0692</p>		 <p><i>Polymer 51 (2010) 2264</i></p>																																							
<p>TBDI-DFBT CAS#2138496-98-5 OS0985</p>		<p style="text-align: center;">Bottom-gate/top-contact (BGTC) OTFT device performance parameters</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Polymers</th> <th rowspan="2">T_{anneal} (°C)</th> <th colspan="3">n-Channel</th> </tr> <tr> <th>μ_{sat}^a (cm² V⁻¹ s⁻¹)</th> <th>V_T (V)</th> <th>$I_{\text{on}}/I_{\text{off}}$</th> </tr> </thead> <tbody> <tr> <td rowspan="2">TBDI-T</td> <td>25</td> <td>0.031 (0.013)</td> <td>54</td> <td>10⁴</td> </tr> <tr> <td>250</td> <td>0.11 (0.07)</td> <td>23</td> <td>10⁴</td> </tr> <tr> <td rowspan="2">TBDI-DT</td> <td>25</td> <td>0.092 (0.056)</td> <td>65</td> <td>10⁴</td> </tr> <tr> <td>220</td> <td>0.15 (0.13)</td> <td>62</td> <td>10³</td> </tr> <tr> <td rowspan="3">TBDI-DFDT</td> <td>25</td> <td>0.096 (0.089)</td> <td>58</td> <td>10⁵</td> </tr> <tr> <td>250</td> <td>0.40 (0.25)</td> <td>49</td> <td>10⁶</td> </tr> <tr> <td>250^b</td> <td>0.34 (0.27)</td> <td>22</td> <td>10⁷</td> </tr> </tbody> </table> <p><i>J. Mater. Chem. C., 2017, 5, 9559</i></p>	Polymers	T_{anneal} (°C)	n-Channel			μ_{sat}^a (cm ² V ⁻¹ s ⁻¹)	V_T (V)	$I_{\text{on}}/I_{\text{off}}$	TBDI-T	25	0.031 (0.013)	54	10 ⁴	250	0.11 (0.07)	23	10 ⁴	TBDI-DT	25	0.092 (0.056)	65	10 ⁴	220	0.15 (0.13)	62	10 ³	TBDI-DFDT	25	0.096 (0.089)	58	10 ⁵	250	0.40 (0.25)	49	10 ⁶	250 ^b	0.34 (0.27)	22	10 ⁷
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<p>2DPP-2CNTVT CAS#2130979-39-2 OS0392</p>		 <p>p-channel OFET $\mu_h = 2.2 \text{ cm}^2/\text{V}\cdot\text{s}$</p> <p>n-channel OFET $\mu_e = 1.2 \text{ cm}^2/\text{V}\cdot\text{s}$</p> <p style="text-align: center;">Top Gate-Bottom contact (TGBC)</p> <p><i>Macromolecules 2017, 50, 7550–7558</i></p>																																							

Please contact info@1-material.com for more N-Type Semiconducting polymers , and we can also collaboratively develop OTFT and OTE materials to meet your specific needs.