Amphiphilic chiral block-poly(thiophene)s: Tuning the blocks.

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B. UV-vis & CD spectroscopy

1. In solution

i. Neutral media

Figure S11: UV-vis, CD and gabs spectra for the solvatochroism experiments of P2 in a neutral THF/MeOH mixture. The ratio THF/MeOH is given in the legend.
Figure S12: UV-vis, CD and g_ab spectra for the addition of acid to P2 in a neutral THF/MeOH mixture of THF/MeOH 40/60.

The ratio THF/MeOH is given in the legend.
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Figure S19: UV-vis, CD and g_{abs} spectra for the addition of acid to P6 in a neutral THF/MeOH 20/80 mixture. The ratio THF/MeOH is given in the legend.
ii. **Acidic media**

*Figure S20:* UV-vis, CD and \( g_{abs} \) spectra for the solvatochromism experiments of P2 in an acidic THF/MeOH mixture. The ratio THF/MeOH is given in the legend.
Figure S21: UV-vis, CD and $g_{abs}$ spectra for the addition of base to P2 in an acidic THF/MeOH 40/60 mixture. The ratio THF/MeOH is given in the legend.
Figure S22: UV-vis, CD and $g_{abs}$ spectra for the solvatochromism experiments of P4 in an acidic THF/MeOH mixture. The ratio THF/MeOH is given in the legend.
Figure S23: UV-vis, CD and g_{abs} spectra for the addition of base to P4 in an acidic THF/MeOH 40/60 mixture. The ratio THF/MeOH is given in the legend.
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Figure S26: UV-vis, CD and $g_{abs}$ spectra for the solvatochromism experiments of P6 in an acidic THF/MeOH mixture. The ratio THF/MeOH is given in the legend.
Figure S27: UV-vis, CD and $g_{abs}$ spectra for the addition of base to P6 in an acidic THF/MeOH 20/80 mixture. The ratio THF/MeOH is given in the legend.
2. **In film**

Films were prepared by spin coating from neutral or acidified THF solutions (1200 rpm, 20 s) and the solutions were filtered with a 0.20 µm filter prior to spin coating.

i. **Spincoated from neutral media**

*Figure S28: UV-vis, CD and g\textsubscript{abs} spectra for the annealing experiments with P2 with fast cooling.*

Each run, the film is annealed for 1 min at the temperature given in the legend and cooled fast at room T.
Figure S29: UV-vis, CD and g\textsubscript{abs} spectra for the annealing experiments with P2 with slow cooling. Each run, the film is annealed for 1 min at the temperature given in the legend and cooled slow at 2 °C min\textsuperscript{-1}.
Figure S30: UV-vis, CD and $g_{ab}$ spectra for the annealing experiments with P3 with fast cooling. Each run, the film is annealed for 1 min at the temperature given in the legend and cooled fast at room T.
**Figure S31:** UV-vis, CD and $g_{abs}$ spectra for the annealing experiments with P4 with fast cooling.

Each run, the film is annealed for 1 min at the temperature given in the legend and cooled fast at room T.
Figure S32: UV-vis, CD and $g_{abs}$ spectra for the annealing experiments with P4 with slow cooling.

Each run, the film is annealed for 1 min at the temperature given in the legend and cooled slow at 2 °C min$^{-1}$. 
Figure S33: UV-vis, CD and $g_{abs}$ spectra for the annealing experiments with P5 with fast cooling.
Each run, the film is annealed for 1 min at the temperature given in the legend and cooled fast at room T.
Figure S34: UV-vis, CD and $g_{abs}$ spectra for the annealing experiments with P6 with fast cooling.
Each run, the film is annealed for 1 min at the temperature given in the legend and cooled fast at room T.
Figure S35: UV-vis, CD and \( g_{ab} \) spectra for the annealing experiments with P6 with slow cooling.
Each run, the film is annealed for 1 min at the temperature given in the legend and cooled slow at 2 °C min\(^{-1}\).

1, II and III holds different measurements of the same film but under different angles.
ii. Spincoated from acidic media

Figure S36: UV-vis, CD and $g_{abs}$ spectra for the annealing experiments with P2 with fast cooling.

Each run, the film is annealed for 1 min at the temperature given in the legend and cooled fast at room T.
**Figure S37**: UV-vis, CD and $g_{ab}$ spectra for the annealing experiments with P3 with fast cooling.

Each run, the film is annealed for 1 min at the temperature given in the legend and cooled fast at room T.
**Figure S38:** UV-vis, CD and $g_{obs}$ spectra for the annealing experiments with P4 with fast cooling.

Each run, the film is annealed for 1 min at the temperature given in the legend and cooled fast at room T.
**Figure S39:** UV-vis, CD and $g_{abs}$ spectra for the annealing experiments with P6 with fast cooling.

Each run, the film is annealed for 1 min at the temperature given in the legend and cooled fast at room T.
Figure S40: UV-vis, CD and g_{abs} spectra for the annealing experiments with P6 with slow cooling. Each run, the film is annealed for 1 min at the temperature given in the legend and cooled slow at 2 °C min\(^{-1}\).
**Figure S41:** UV-vis, CD and $g_{abs}$ spectra for the spincoated films of P6 with different film thicknesses. The concentration of the solution in mg/ml used for spincoating is given at the end of the label in the legend.
Figure S42: UV-vis, CD and $g_{abs}$ spectra for the annealing experiments with P6 with different film thicknesses and fast cooling.

Each run, the film is annealed for 1 min at the temperature given in the legend and cooled fast at room T. The concentration of the solution in mg/ml used for spincoating is given at the end of the label in the legend.
Figure S43: UV-vis, CD and g_{abs} spectra for the annealing experiments with P6 with different film thicknesses and slow cooling.

Each run, the film is annealed for 1 min at the temperature given in the legend and cooled slow at 2 °C min⁻¹. The concentration of the solution in mg/ml used for spincoating is given at the end of the label in the legend.
C. Polarizing optical microscopy (POM)

Figure S44: POM picture of the P6 polymer sample during slow cooling from 90 °C. The picture of the defect texture was taken at 68 °C (100 × magnification).
D. Differential scanning calorimetry (DSC) of polymers P1-P6

The polymers were first heated well above their melting temperature, kept at this temperature for 15 minutes and then slowly cooled down at 2°C min⁻¹. Finally, the melting temperatures were also determined by reheating the samples at 10°C min⁻¹.

Sample: P3OT 29  
Size: 1.1000 mg

Sample: I  
Size: 3.4600 mg
Sample: C8N
Size: 2.4900 mg

DSC

File: C:\\metingen Michiel\\C8N tot 180.001
Operator: Tine
Run Date: 01-Oct-2012 18:38
Instrument: DSC Q2000 V24.9 Build 121

143°C
118°C
130.62°C
7.2J/g
-0.2
0.0
0.2
0.4
0.6
Heat Flow (W/g)
0 50 100 150 200 250
Temperature (°C)

Sample: C10N
Size: 3.2400 mg

DSC

File: C:\\metingen Michiel\\C20N tot 180.001
Operator: Tine
Run Date: 01-Oct-2012 15:36
Instrument: DSC Q2000 V24.9 Build 121

70°C
85°C
70.72°C
6.3J/g
-0.3
-0.1
0.1
0.3
0.5
0.7
Heat Flow (W/g)
0 50 100 150 200 250
Temperature (°C)