## SUPPORTING INFORMATION

## **Colloidal Templating: Seeded Emulsion Polymerization of a Soluble Shell with a Controlled Alkyne Surface Density**

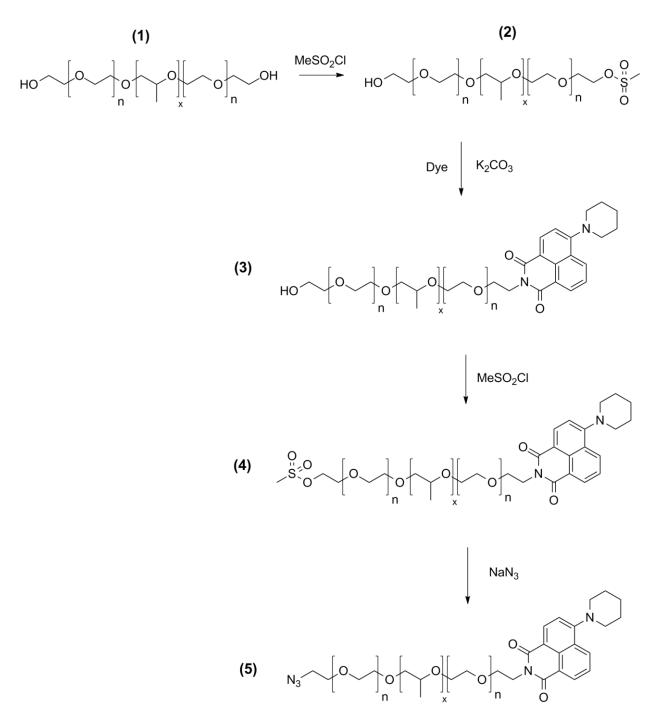
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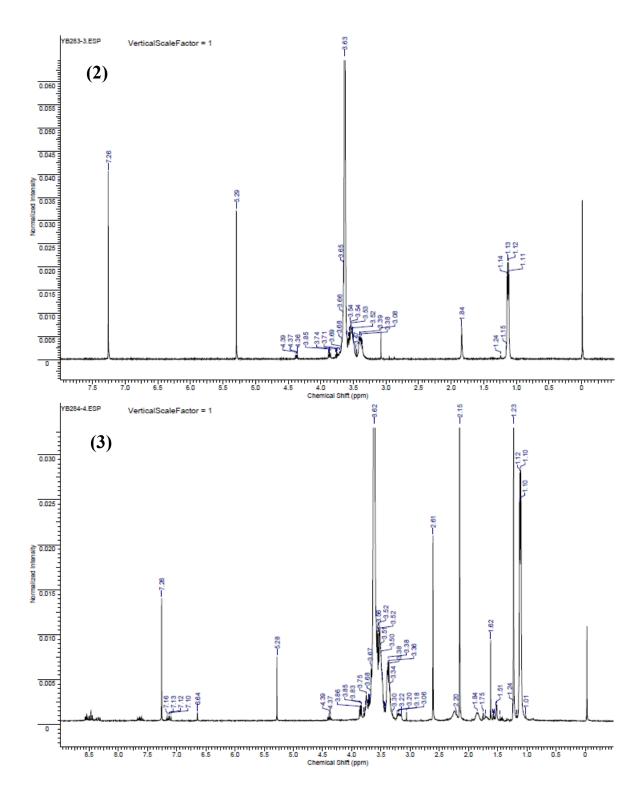
Electronic Supplementary Material (ESI) for Soft Matter This journal is C The Royal Society of Chemistry 2012

## Synthesis of naphthalimide modified azido-pluronic (azPXD)



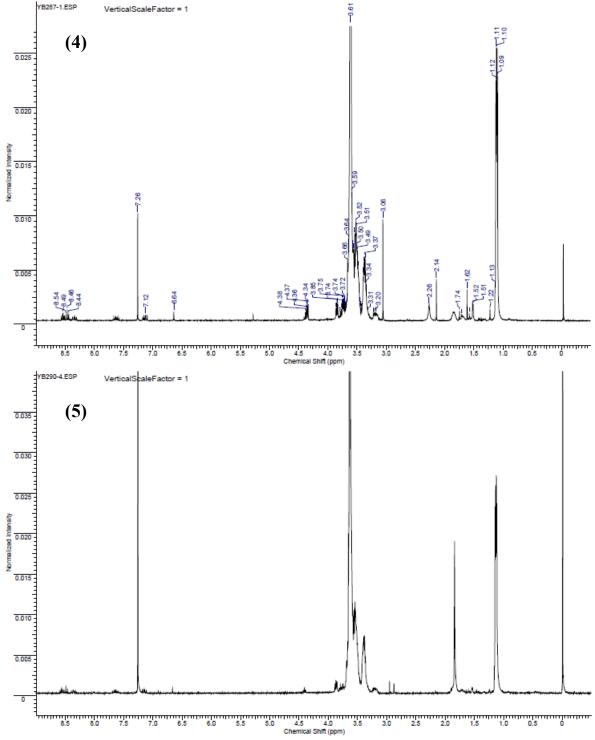
*Scheme A.* Reaction scheme for the modification of F-68 pluronic with a naphthalimide (6-Piperidin-1-yl-benzo[de]isoquinoline-1,3-dione) and an azide.

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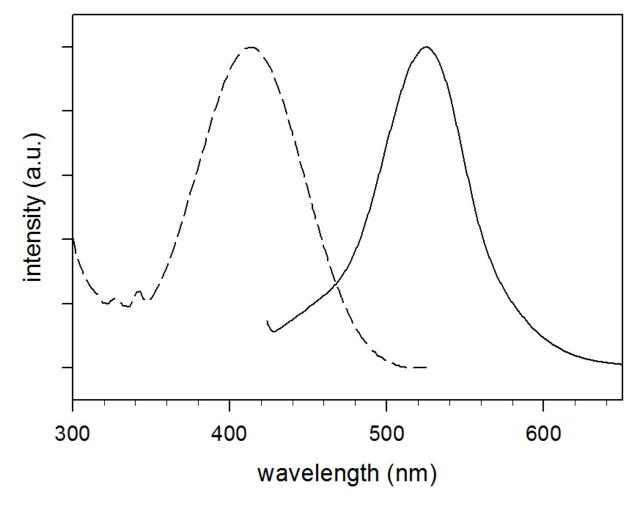


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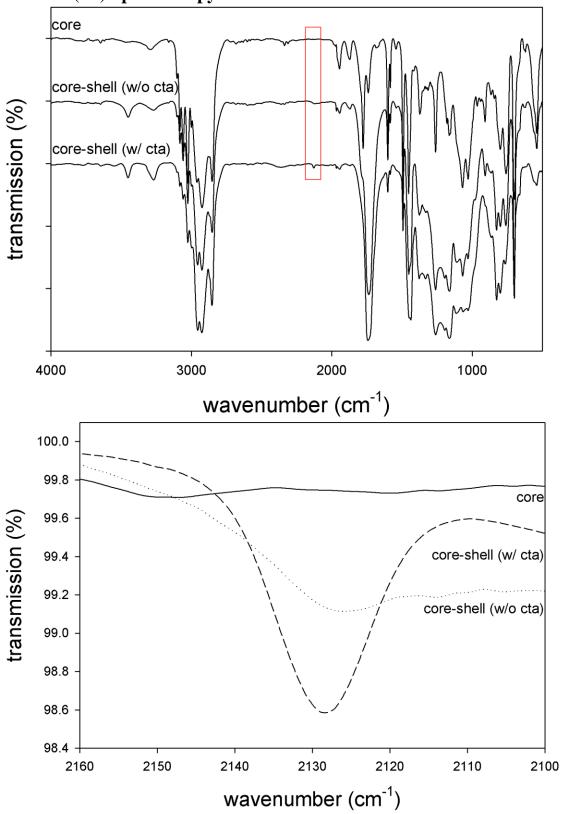
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*Figure A*. Nuclear Magnetic Resonance (NMR) spectra of intermediate steps and final product in the synthesis of AzPXD.



*Figure B.* UV-Vis (dash) and photoluminescence (solid) spectroscopy of naphthalimide modified azidopluronic (azPXD). Absorbance spectrum was collected on a 5  $\mu$ M solution of AzPXD in methanol, absorbance maximum at 414 nm. Photoluminescence spectrum was collected on a 20  $\mu$ M solution of AzPXD in methanol, with excitation wavelength at 404 nm and emission maximum at 525 nm.



#### Infrared (IR) Spectroscopy of Core-Shell Particles

*Figure C.* IR spectra of core and core-shell particles. The second spectra focuses on the alkyne peak at ca.  $2130 \text{ cm}^{-1}$ , where only a peak for the shell polymerization that used a chain transfer agent is noticeable. Both polymer shells used 1% propargyl acrylate in the shell polymerization.