

Supporting Information

A Systematic Study on the Self-Assembly Behaviour of Multi Component Fmoc-Amino Acid-Poly(oxazoline) Systems

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Figure S1. LCST of unfunctionalised polymer (□) and the polymer after click reaction with 11-azido-3,6,9-trioxaundecan-1-amine (■).

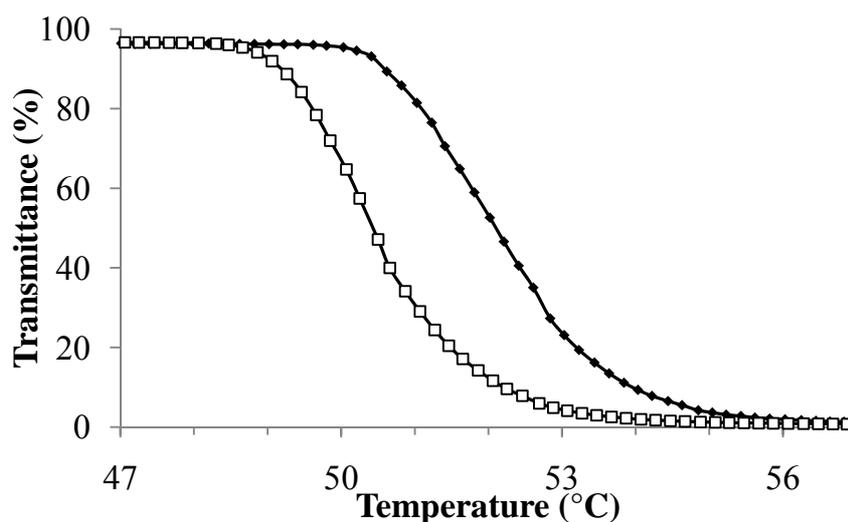


Figure S2. HPLC graph showing Fmoc-*p*Y (dotted line) and Fmoc-*p*Y-N₃ complex (continuous line) retention time.

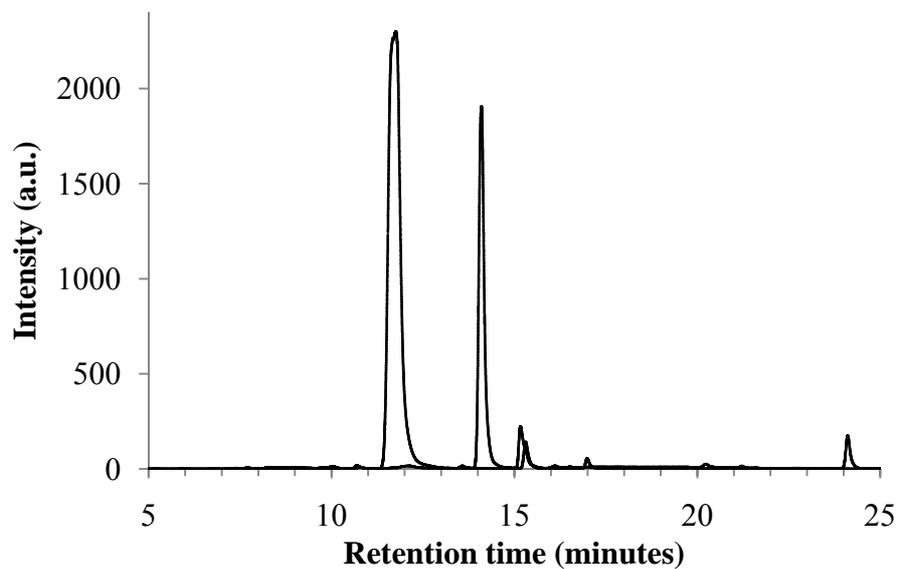


Figure S3. HPLC graph showing Fmoc-K(Boc)-OH (dotted line) and Fmoc-K(Boc)-N₃ complex (continuous line) retention time.

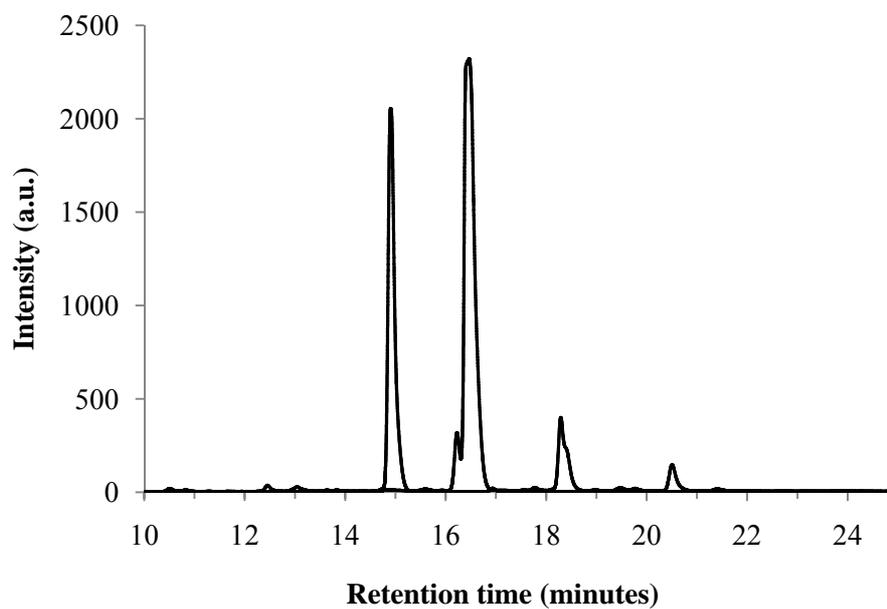
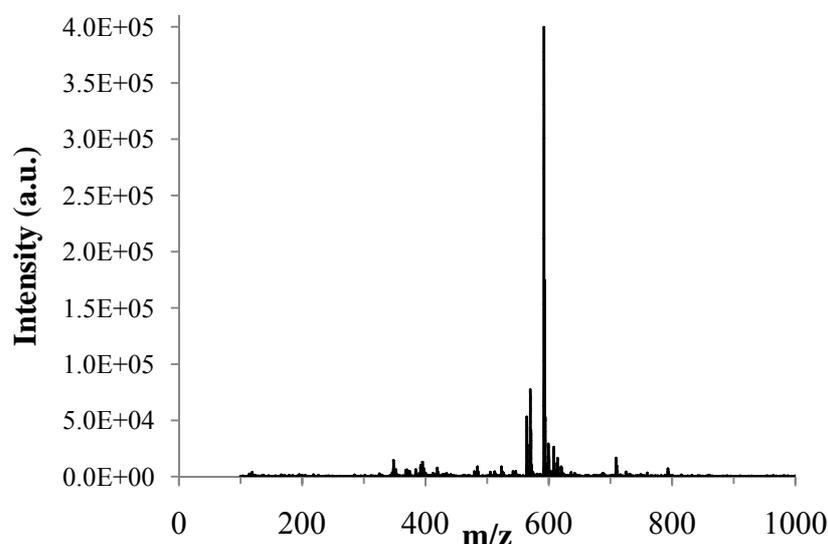


Figure S4. MS showing molecular weight profile of purified Fmoc-K-N₃ complex. The main peak has a value of 592 which is the mass of Fmoc-K-N₃ (Mw=569) plus sodium.



UV/Vis experiments-LCST A thermostatic cell in the UV was used to evaluate the cloud point temperature of the polymers. The absorbance of a known amount of polymer dissolved in water (1 mg/ml) was read at 600 nm, in order to have no absorbance at room temperature. The sample was heated in the thermostatic cell with intervals of 0.2°C, within a temperature range of 25–60 °C without stirring. The absorbance started to increase when the phase transition temperature of the polymer was reached and transmittance values plotted into a graph.

DLS measurements Aqueous solutions of polymer (2.5 mg/ml) were used to determinate the average particle sizes before and after the enzymatic reaction. Prior to the measurement, the solution was filtered (PDV 0.2 µm filter) to eliminate impurities. After taking a first measurement, 50 U of phosphatase (5 µL) was added directly to the vial and the sample was left overnight at room temperature, before taking a second measurement standing for the average particle size after the enzymatic conversion. Each measurement was repeated 3 times to assess the reliability of the results.