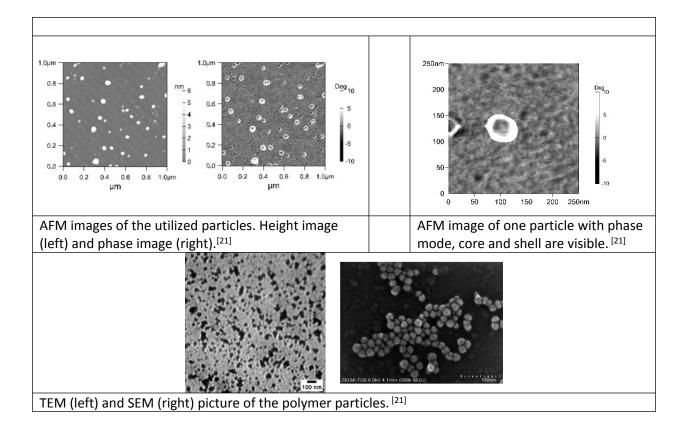
## **Supporting Information**

## S1. Characterization of the polymer particles

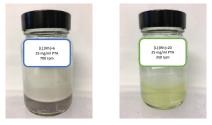
**Table 2**. Zeta Potential and diameters (D) of the polymer particles obtained with different characterization techniques

Sample	ZP (ζ)	DLS	AFM (dry)	SEM	TEM
	(mV)	$D_h^{[a]}$ (nm)	D (nm)	D (nm)	D (nm)
LX5	+ 48	95 ± 1	72 ± 7	30 ± 3	32 ± 3

[a] D<sub>h</sub>: Hydrodynamic Diameter



## S2. Phase Separation



**Figure 2**. Phase separation at A) fast stirring (700 rpm) with 25 mg/ml of PTA and B) slow stirring (350 rpm) with 35 mg/ml of PTA