Supplementary Material for Chemical Communications
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Supplementary information for CE Hunt, P Pasetto, RJ Ansell, and K Haupt 'A fluorescence polarisation molecular imprint sorbent assay for 2,4-D : A non-separation pseudoimmunoassay'

Microgel synthesis

Ethyleneglycol dimethacrylate (EDMA), 4-vinylpyridine (4-VPy), 2,4-dichlorophenoxyacetic acid (2,4-D) and acetonitrile were from Aldrich. 4-VPy was distilled under vacuum before use. ABDV was from Wako Chemicals.
EDMA (380.4 mg), 4-VPy (95.1 mg), 2,4-D (50 mg) and the polymerisation initiator ABDV (12 mg) were dissolved in 12 ml acetonitrile. The ratio of template/functional monomer was 1:4, the amount of EDMA relative to the total monomers was 80% (w/w), and the concentration of monomers in the solvent was 4%. The critical monomer concentration had been determined in preliminary experiments to be 5% (w/w).
The solution was sparged with argon for 2 minutes on ice. Thereafter, the mixture was polymerised at 50°C for 20 hours. After cooling to room temperature, the microgel solution was poured slowly into 50 ml of diethyl ether. Precipitation of the microgel occured, the resulting suspension was centrifuged at 12000 rpm for 10 minutes. The sediment was redissolved in 10 ml of methanol/acetic acid 4:1 and stirred for 1 hour. Then the methanolic solution was poured slowly into 50 ml of diethyl ether in order to precipitate the microgel. This was repeated three times. Two final washing steps were done using methanol only, then the polymer was dried under vacuum.

SEM of (dried) microgel particles