Electronic Supplementary Material (ESI) for Analytical Methods.

Synthesis of a Novel Cross-linker Double as Functional Monomer for Water Compatible Molecularly Imprinted Polymer

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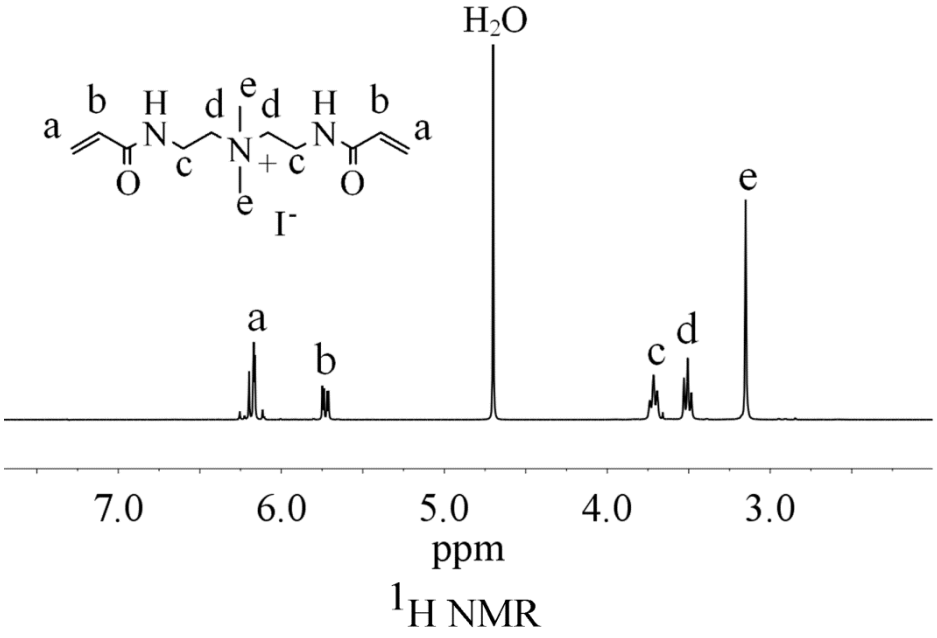

Fig.S1. ^{1}H NMR spectrum of WSCFM

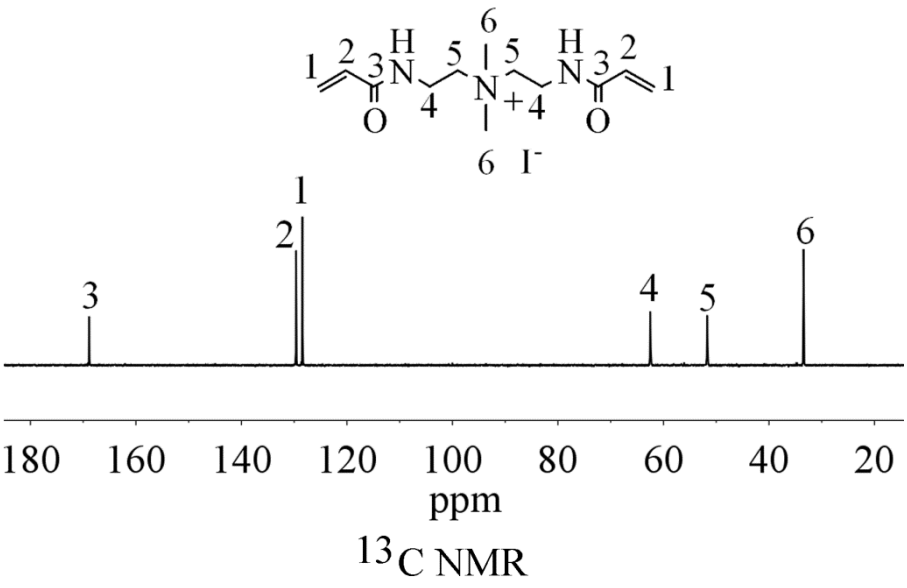

Fig.S2. ^{13}C NMR spectrum of WSCFM

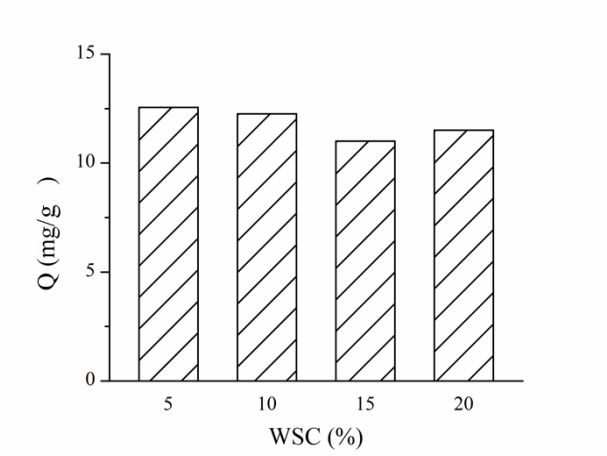

Fig. S3 Effect of WSC ratios on binding amounts of NS on MIPs

For the preparation of AM and 2-VP based MIPs in chloroform, Naproxen (0.2 mmol) and AM (0.24 mmol) or 2-VP (0.24 mmol) were dissolved in 6 mL chloroform and the mixture was incubated for 30 min. Then ethyleneglycol dimethacrylate (EGDMA) (1.2 mmol) was added. The solution was sonicated and degassed using N_2 for 5 min. Free radical initiator AIBN was added and the flask was sealed. Polymerization proceeded in a water bath at 70 °C for 6 h. The resultant particles were collected by centrifugation at 10, 000 rpm for 15 min. The template molecule was extracted by washing repeatedly with mixture of methanol/ammonia (9:1, v/v) for 12 h. Then the particles were sonicated with methanol to remove residual ammonia and were dried in vacuum. Rebinding procedure was the same as that described in manuscript (Experimental section) with the concentration of template 0.10 mg/mL. Experiment results showed that the adsorption capacity of acrylamide-MIP and 2-vinyl pyridine-MIP was 20.3 mg g^{-1} and 27.6 mg g^{-1}, respectively, which was still much lower than the capacity of WSCFM-MIPs (34.4 mg g^{-1}).

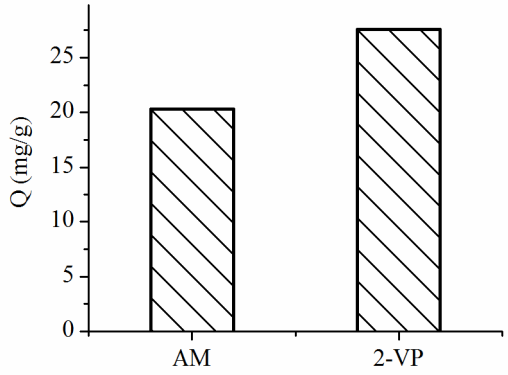

Fig. S4 adsorption capacity of AM and 2-VP based MIPs (the concentration of template 0.10 mg/mL)