## Supplementary Information

## Pore Size-Optimized Periodic Mesoporous Organosilicas for Enrichment of Peptides and Polymers

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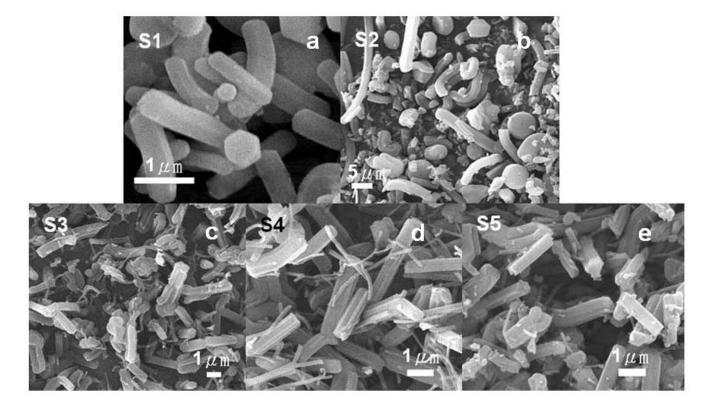
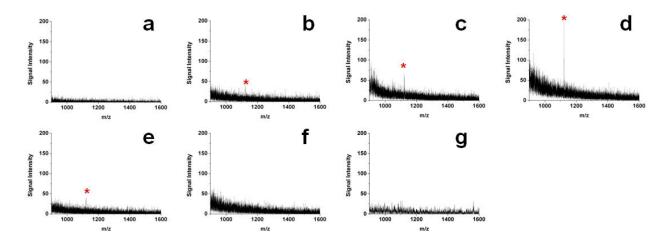
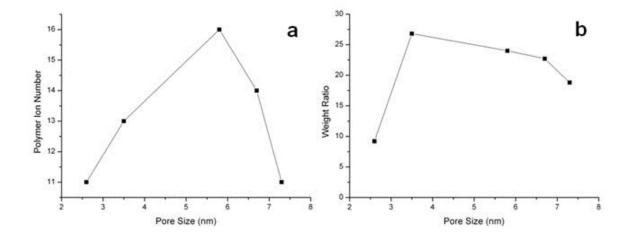


Fig. S1 SEM images of S1 a), S2 b), S3 c), S4 d) and S5 e).

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**Fig. S2** MALDI-TOF MS spectra obtained from 0.01 ng/ $\mu$ L E7 peptide solution a), after enrichment by S1 b), S2 c), S3 d), S4 e), S5 f) and non-mesoporous organosilica g) under 45% laser intensity.



**Fig. S3** Polymer ion number in the MS spectra after enrichment by the PMO materials with different pore size based on MS a) and the weight ratio of polymer after saturated adsorption in the PMO materials with different pore sizes based on TGA b).