Supporting Materials
Isotherm

Adsorbed N\textsubscript{2} Vol. (cm\textsuperscript{3}/g)

Relative pressure P/P\textsubscript{0}

- Acid Gel
- Base Gel
Schematic diagram of experimental setup for measurement of optical spectral variation with pH.
FTIR spectra of sol-gel glasses doped with the indicator.
Surface Fractal Dimension = 2.69

Mass Fractal Dimension = 2.15

Small-angle X-Ray Scattering (SAXS) Curves
Optical spectra of TD-MR and protonated TD-MR in aqueous solutions.
Structure of trimethoxysilypropylamide derivative of methyl red (TD-MR)
Comparison of two different local environments generated by (a) plain indicator template and (b) protonated indicator template.
SEM Images of Imprinted and Nonimprinted Samples

Base-Catalyzed Gel

Acid-Catalyzed Gel

500 nm
Photograph of imprinted and nonimprinted sol-gel glasses in a buffer solution with pH ≈ 5.8. The different colors of the glasses indicate that the same indicator has different $pK_a$ values in the imprinted and nonimprinted samples.