Proton chemical shift anisotropy measurements of hydrogen-bonded functional groups by fast magic-angle spinning solid-state NMR spectroscopy

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Supporting Information

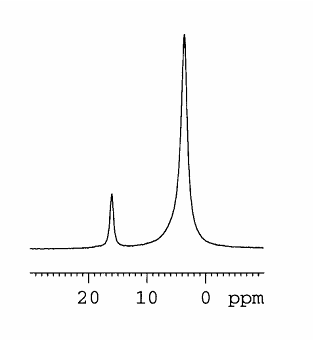

Fig. S1 400 MHz ^{1}H MAS NMR spectrum of octosilicate recorded at a spinning frequency of 10 kHz. The low field isotropic peak at 15.98 ppm represents siloxyl protons involved in strong hydrogen bonding, the high-field signal corresponds to water molecules.

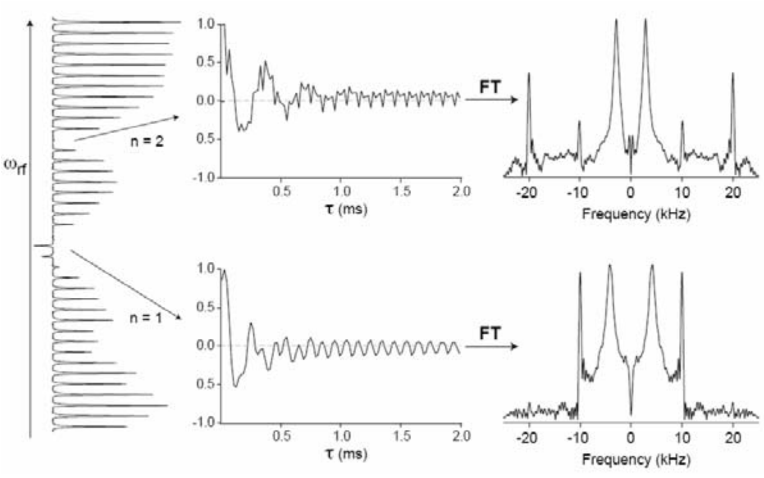

Fig. S2 (left) ^{1}H rotary resonance profile of siloxyl protons in octosilicate at 10 kHz MAS and 400 MHz resonance frequency. The spin-lock duration was set to 1 ms. The profile was obtained by varying the spin-lock RF field amplitude ω_{rf} in steps of 0.5 dB from 11 to 30 dB attenuation. (middle) Temporal evolution of the signal as a function of spin-lock time τ at n = 1 and 2 rotary resonance conditions. (right) Fourier transformations giving rotary resonance fingerprints.