Supplementary material (ESI) for Journal of Materials Chemistry

Supplementary data

Organic Calcium Silicate Hydrate Hybrids: a New Approach to Cement Based Nanocomposites

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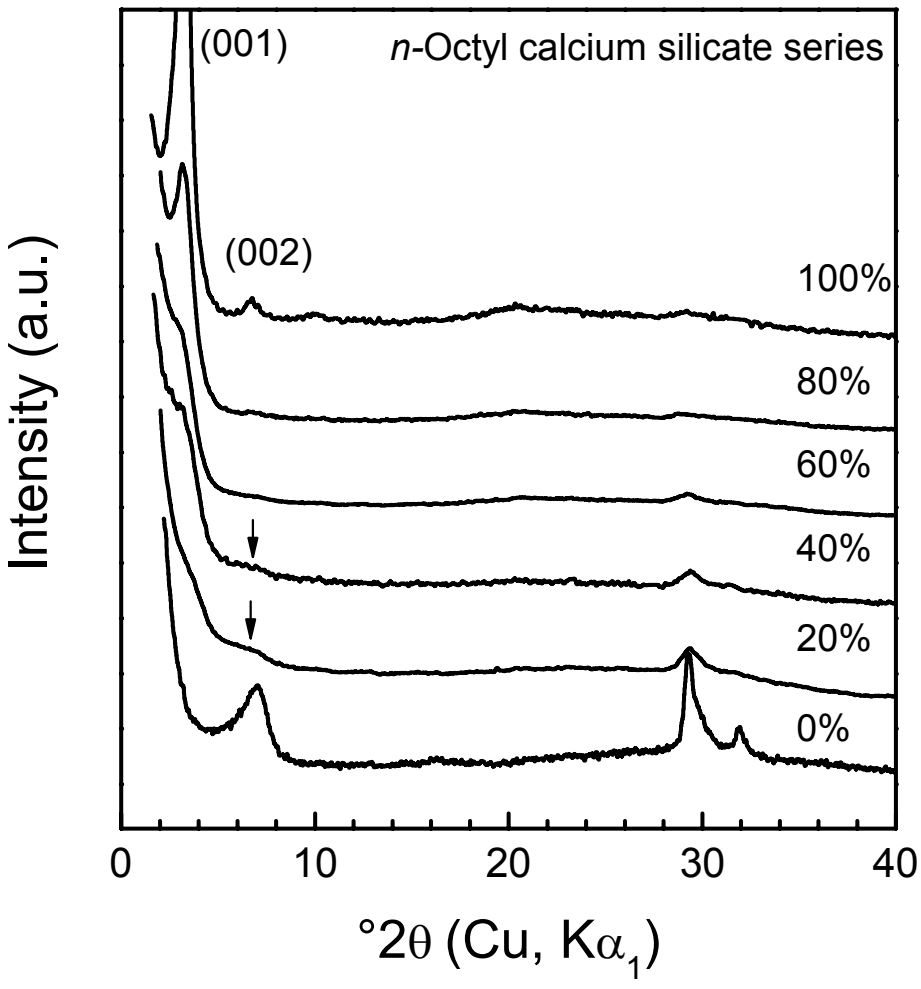

Figure S1 XRD diagrams of *n*-octyl calcium silicate hybrid series. For each spectrum, the fraction of *n*-octyltriethoxysilane (mole %) used as starting trialkoxysilane is indicated. The arrows point to peaks which are characteristic of the (001) peak of pure C-S-H suggesting that 20% and 40% substituted materials are a mixture of C-S-H and 100% *n*-octyl calcium silicate hybrids.

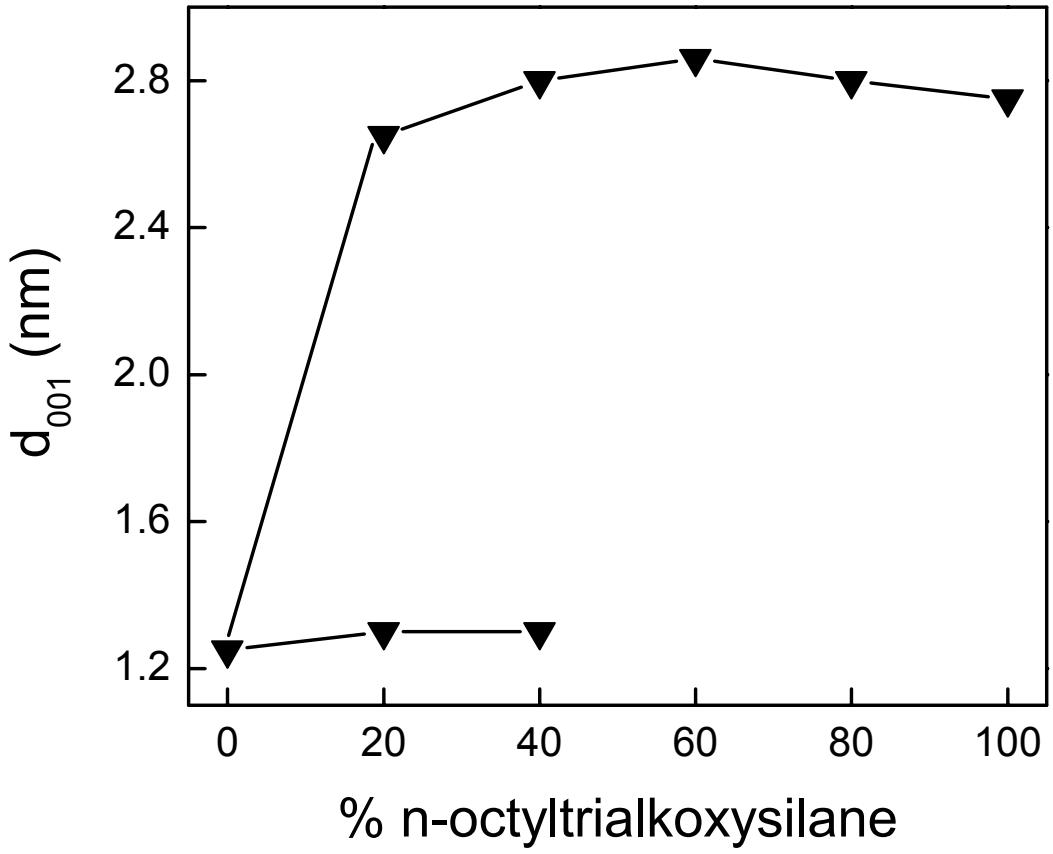

Figure S2 Evolution of the basal distance (d_{001}) with the *n*-octyltrialkoxysilane fraction (in mole %) in calcium silicate hybrids.

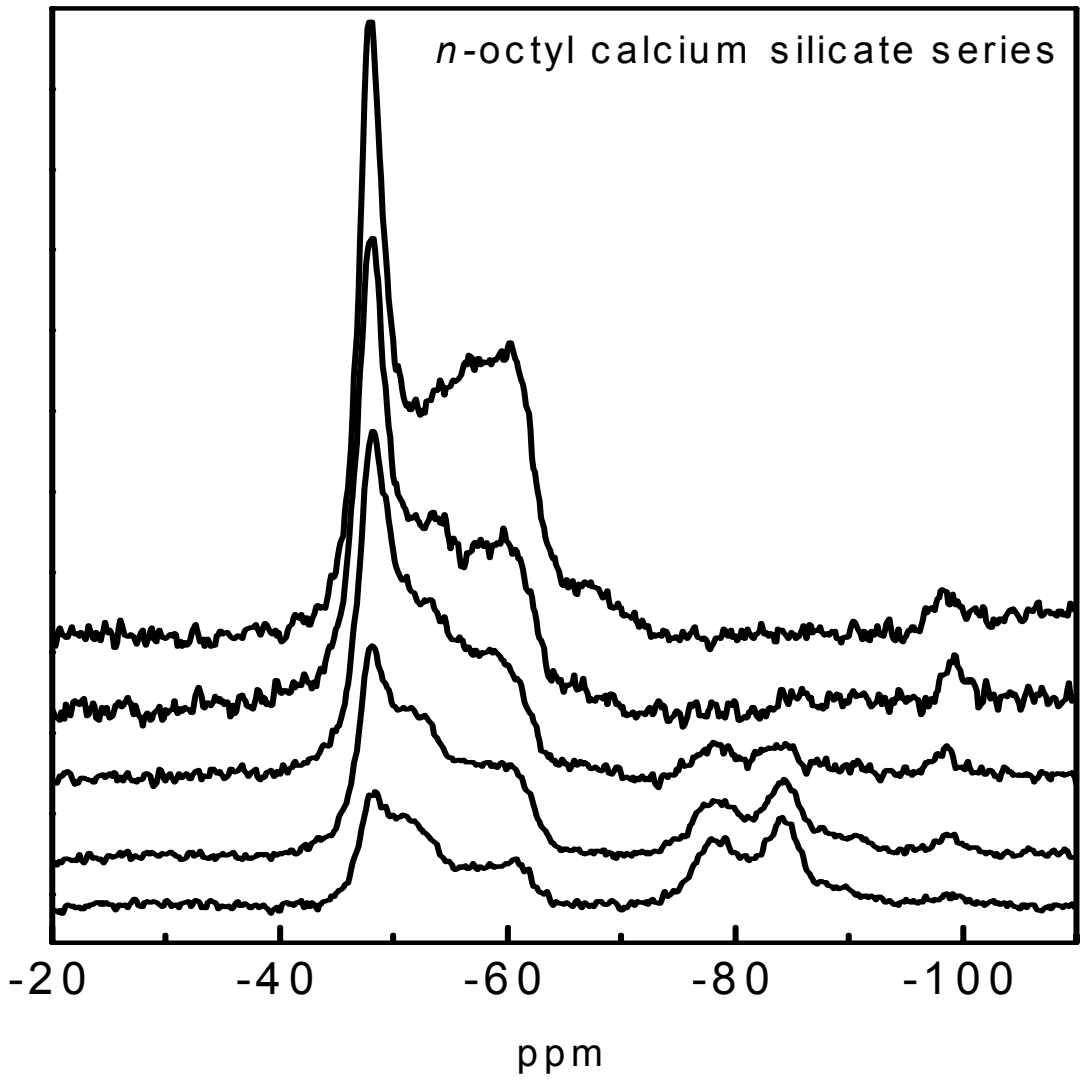

Figure S3 ^{29}Si CP-MAS NMR spectra of. *n*-octyl calcium silicate hybrids. In this figure, the fraction of trialkoxysilane (in mole %) varies from 20 to 100% by 20% steps from the bottom to the top.

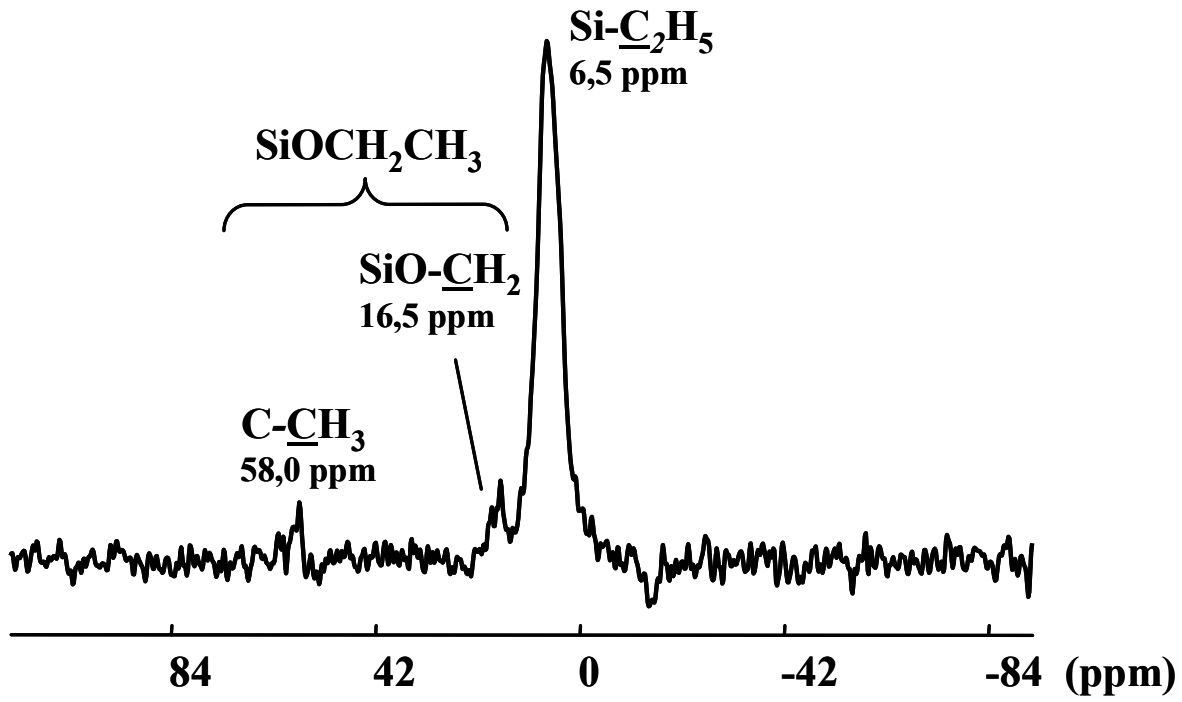

Figure S4 ^{13}C CP-MAS NMR spectrum of a deuterated hybrid made on a mixture of 40% ethyltriethoxysilane and 60 % TEOS.

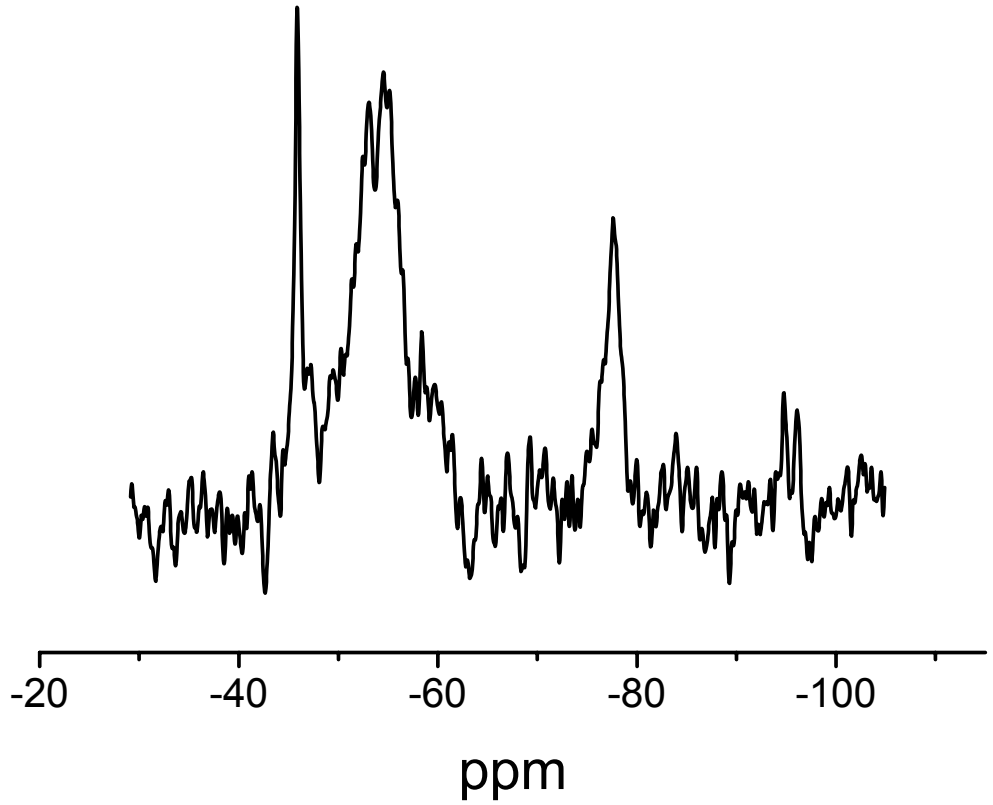

Figure S5 ^{29}Si CP-MAS NMR spectrum of a deuterated aminopropyl calcium silicate hybrid made on a mixture of 10% aminopropyltriethoxysilane and 60% TEOS.