Bulk crystal seeding on the generation of mesopores by organosilane surfactants in zeolite synthesis

Jaeheon Kim\textsuperscript{a,b}, Changbum Jo\textsuperscript{*,a} Seungjun Lee\textsuperscript{a,b} and Ryong Ryoo\textsuperscript{*,a,b}

\textsuperscript{a} Center for Nanomaterials and Chemical Reactions, Institute for Basic Science (IBS), Daejeon 305-701, Republic of Korea.
\textsuperscript{b} Department of Chemistry, KAIST, Daejeon 305-701, Republic of Korea.

*E-mail: ryongryoo@kaist.ac.kr, and jochangbum@kaist.ac.kr

*Tel: +82-42-350-2870

\textbf{Fig. S1} SEM and TEM images of s-MOR.

![SEM and TEM images of s-MOR](image_url)
Fig. S2 (a and b) High resolution TEM images and (inset of a and b) their corresponding fast Fourier transform (FFT) images of s-MOR which indicated the c-axis of MOR structure was parallel to the longest edge of MOR-nanorods.
Fig. S3 (a) N₂ isotherms and (b) their corresponding BJH pore size distributions of s-MOR zeolites, which were synthesized with OS-18, OS-16, and OS-12 as mesopore generating agents. The isotherms for OS-16 and OS-18 were vertically offset by 100 and 200 cm³ g⁻¹ respectively. The pore size distributions for OS-16 and OS-18 were vertically offset by 0.7 and 1.4 cm³ g⁻¹, respectively.
Fig. S4 XRD patterns of bulk CHA, *us*-CHA, and *s*-CHA.
Fig. S5 Representative SEM and TEM images of us-CHA.
**Fig. S6** Representative SEM and TEM images of $s$-CHA.

![SEM and TEM images of $s$-CHA](image)

**Fig. S7** Representative SEM and TEM images of $s$-FAU-X

![SEM and TEM images of $s$-FAU-X](image)