

## Supporting information

# Guided crystallization of zeolite beads composed of ZSM-12 nanosplices

Kassem Moukahhal<sup>1,2,3</sup>, Ludovic Josien<sup>1,2</sup>, Habiba Nouali<sup>1,2</sup>, Joumana Toufaily<sup>3</sup>, Tayssir Hamieh<sup>3</sup>, T. Jean Daou<sup>1,2\*</sup>, Bénédicte Lebeau<sup>1,2\*</sup>

<sup>1</sup> Université de Haute Alsace (UHA), CNRS, Axe Matériaux à Porosité Contrôlée (MPC), Institut de Science des Matériaux de Mulhouse (IS2M), UMR 7361, F-68093 Mulhouse, France; kassem.moukahhal@uha.fr (K.M.); habiba.nouali@uha.fr (H.N.); ludovic.josien@uha.fr (L.J.)

<sup>2</sup> Université de Strasbourg (Unistra), F-67000 Strasbourg, France

<sup>3</sup> Laboratory of Materials, Catalysis, Environment and Analytical Methods Faculty of Sciences, Section I, Lebanese University Campus Rafic Hariri, Hadath, Lebanon; joumana.toufaily@ul.edu.lb (J.T.); tayssir.hamieh@ul.edu.lb (T.H.)

\* Correspondence: jean.daou@uha.fr (T.J.D.); Tel.: +00-(33)-389336739 ; benedicte.lebeau@uha.fr (B.L.); Tel.: +00-(33)-389336882

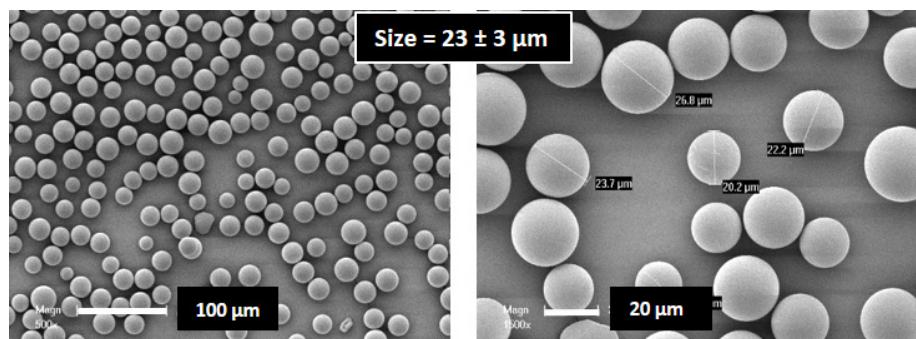


Figure S1. Scanning electron microscopy (SEM) images of the parent amorphous 20  $\mu\text{m}$  silica spheres. An average size of  $23 \pm 3 \mu\text{m}$  was determined from measurements on about 100 beads.

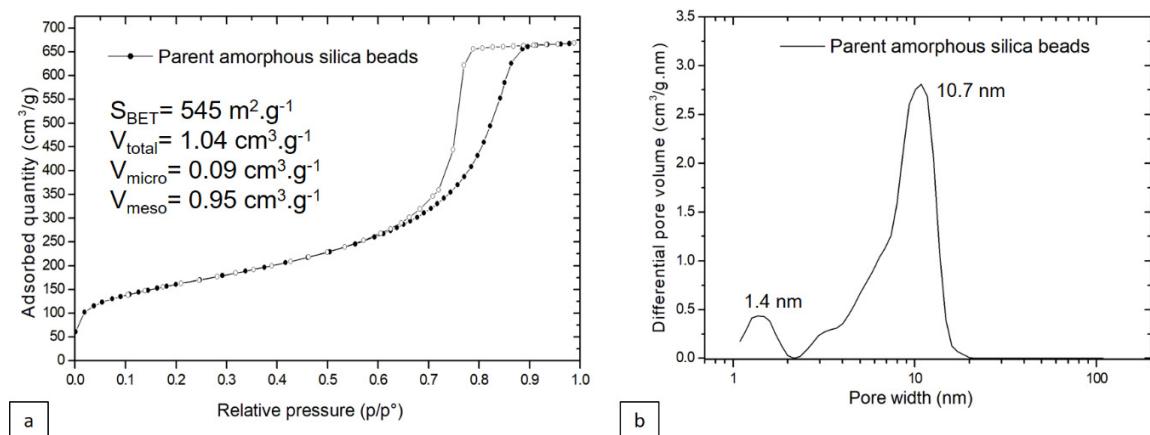


Figure S2. (a) Nitrogen sorption isotherm at 77 K and (b) DFT pore size distribution determined from the adsorption branch of the N<sub>2</sub> isotherm for the parent amorphous silica beads.