Electronic Supplementary Material (ESI) for Chemical Communications

Supporting information

Hydrothermal Synthesis of Well-Dispersed Monodisperse Single-Crystalline Quartz Nanospheres

Xingmao Jiang[a] and C. Jeffrey Brinker*[a,b]

Department of Chemical and Nuclear Engineering and Center for Micro-Engineered Materials, the University of New Mexico, Albuquerque, NM 87131, USA

[d*]Corresponding Author: *Sandia National Laboratories, MS1349, Albuquerque, NM 87106, USA. Fax: 01-505-272-7336; Tel: 01-505-272-7627; E-mail:cjbrinko@sandia.gov*

Figure S1. Selected area electron diffraction pattern for quartz nanosphere.

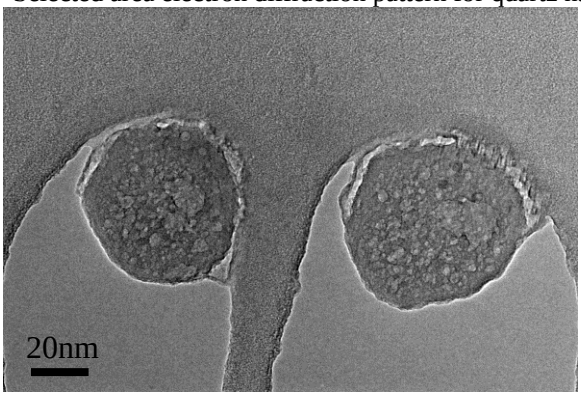

Figure S2. TEM image for ~45nm Stöber silica particles after 24 hr hydrothermal treatment at 200°C.

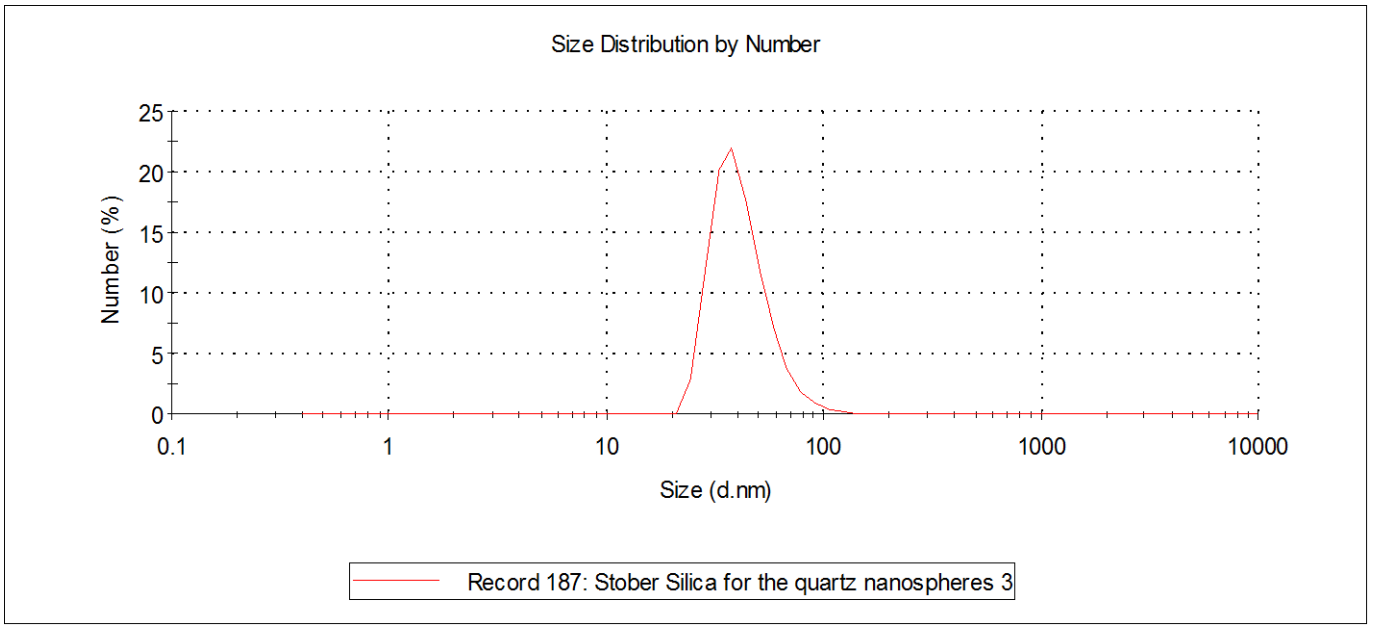

Figure S3. DLS for Stober silica colloids in Figure 1A. The peak is 42.18nm

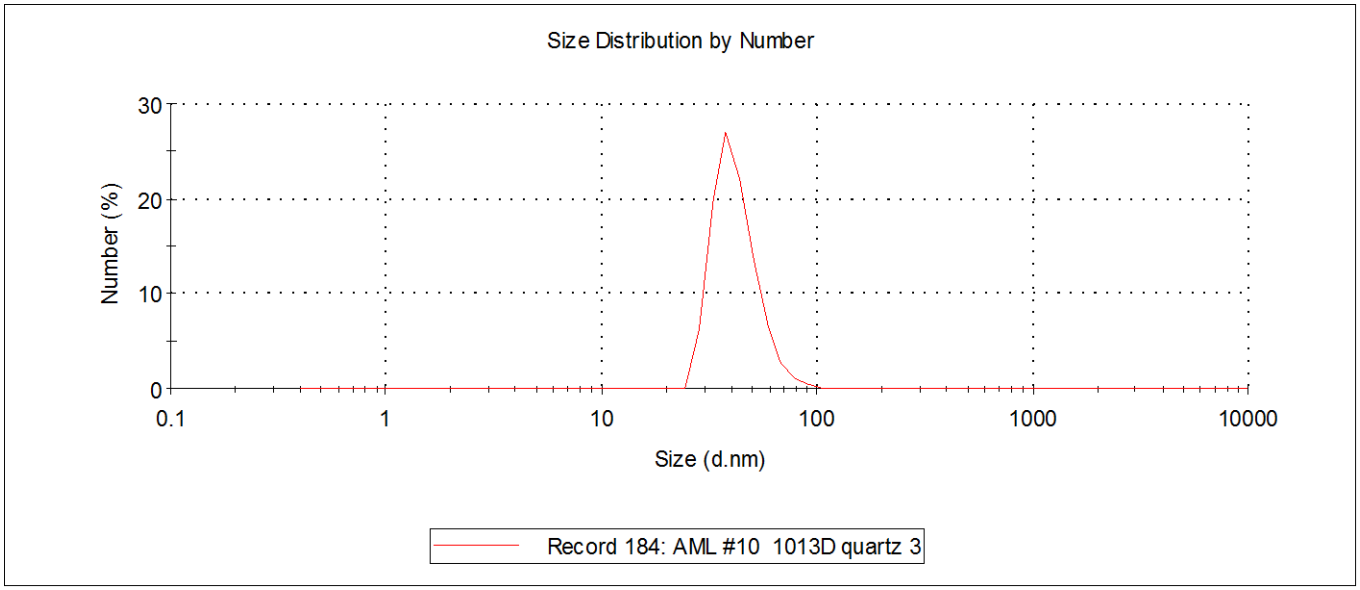

Figure S4. DLS for quartz nanospheres in Figure 1B. The peak is 37.8nm

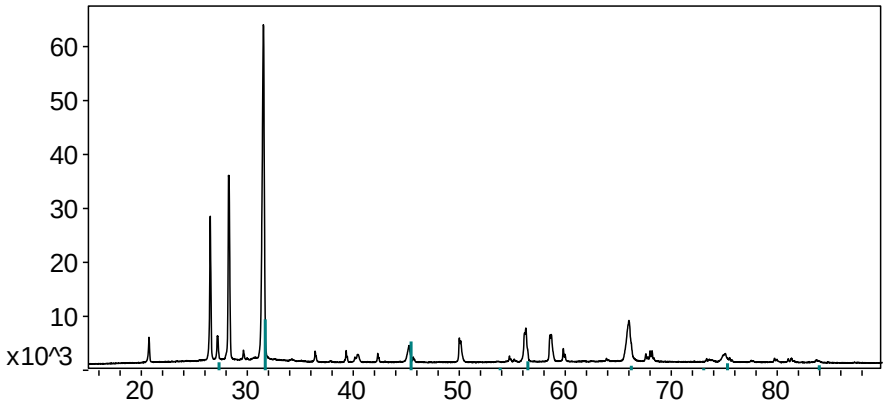

Figure S5. Undialyzed hydrothermal sample made from ~45-nm Stober silica. The XRD peaks for NaCl are marked in green.

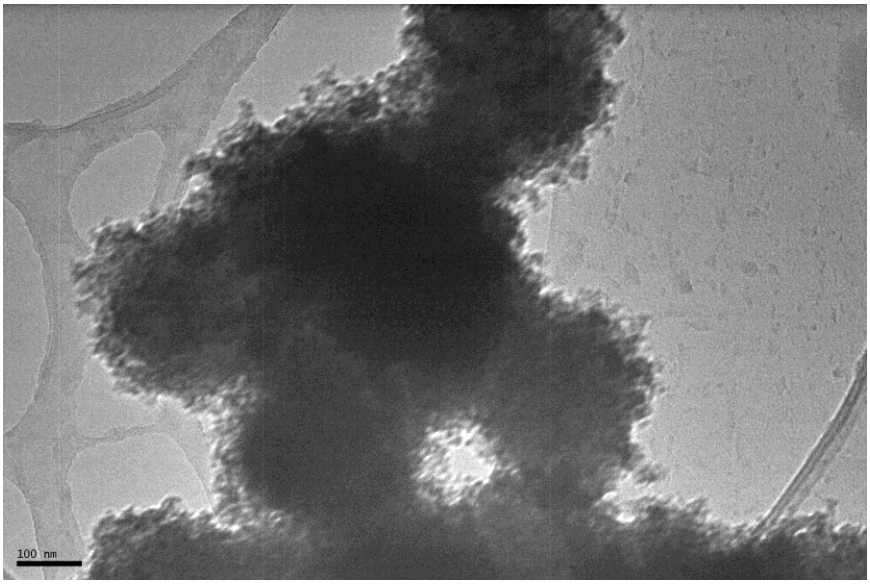

Figure S6. TEM image for aggregated hydrothermal product made from ~45-nm Stöber silica without stirring.