Supporting information

Preparation of Chiral Mesoporous Materials with Helicity Perfectly Controlled

Toshiyuki Yokoi,[†] Kyohei Ogawa,[†] Daling Lu,[†] Junko N. Kondo,[†] Yoshihiro Kubota,[‡] and Takashi Tatsumi[*, †]

[†]Chemical Resources Laboratory, Tokyo Institute of Technology, Nagatsuta 4259, Midori-ku, Yokohama 226-8503 Japan

[‡]Division of Materials Science and Chemical Engineering, Graduate school of Engineering, Yokohama National University, 79-5 Tokiwadai, Hodogaya-ku, Yokohama 240-8501, Japan

Tel.: +81-45-924-5238. Fax: +81-45-924-5282. E-mail: ttatsumi@cat.res.titech.ac.jp

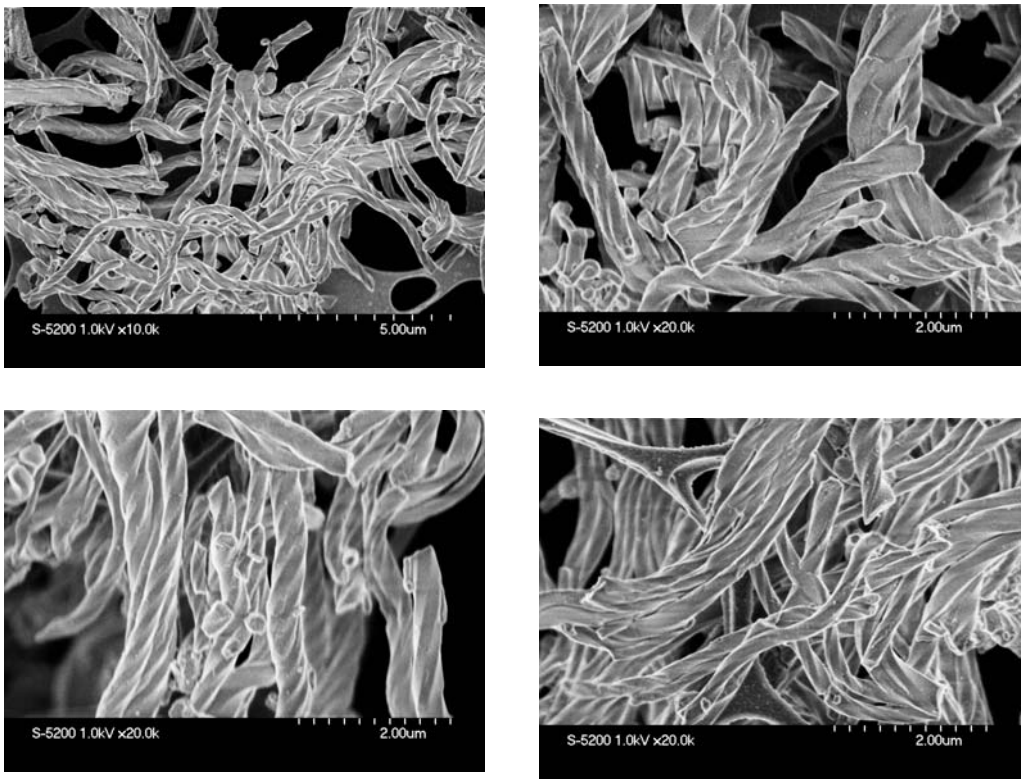


Figure S1 SEM image of the surfactant-extracted 100 % right-handed chiral mesoporous organosilica.

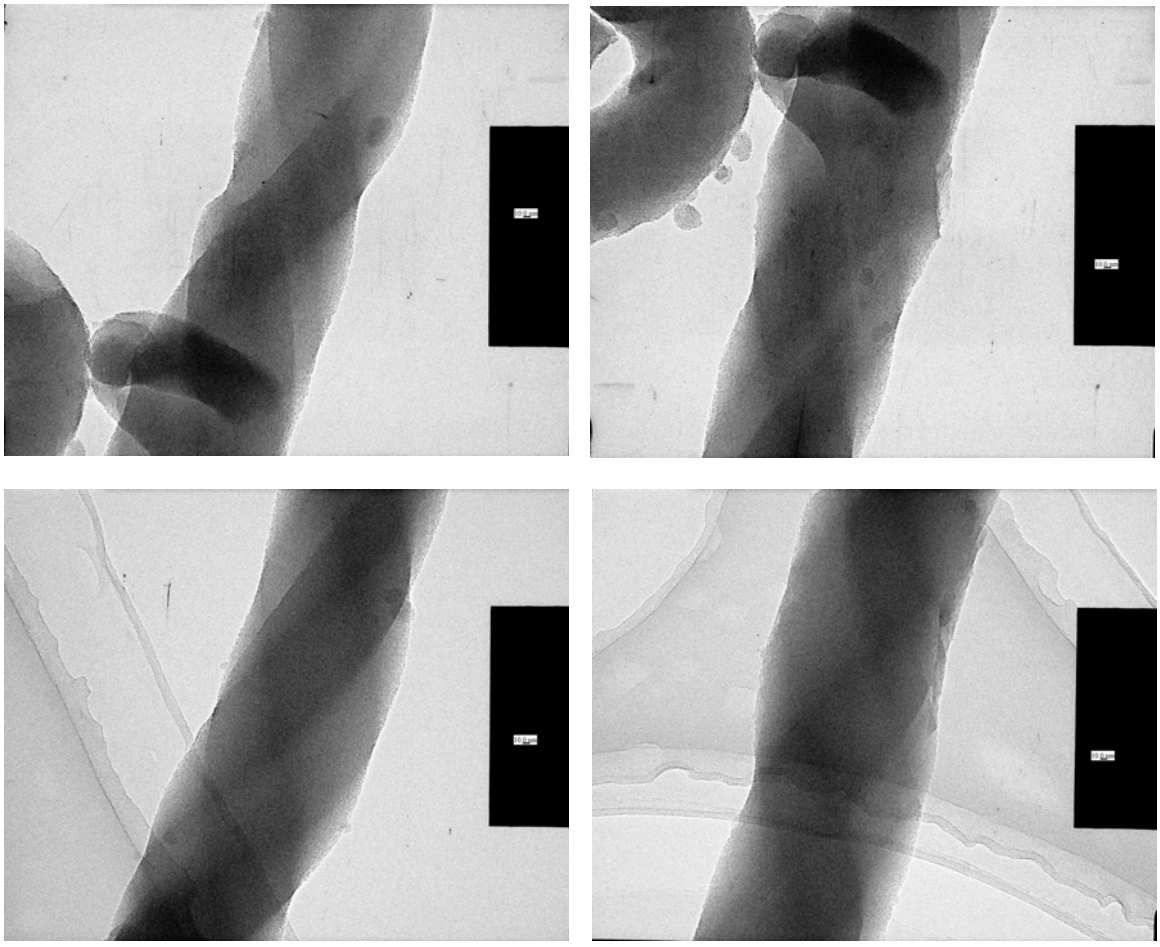


Figure S2
TEM images of the surfactant-extracted 100 % right-handed chiral mesoporous organosilica with different rotation angles along the axe.

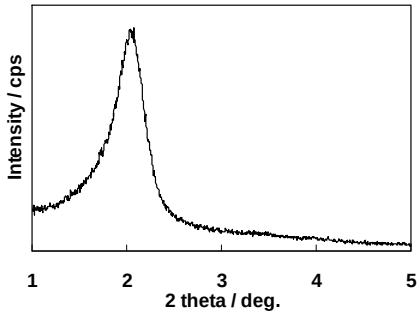
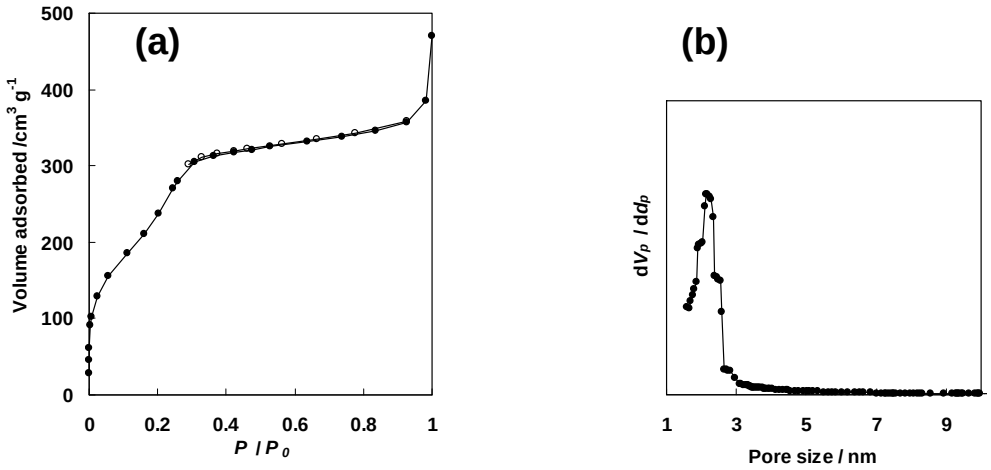
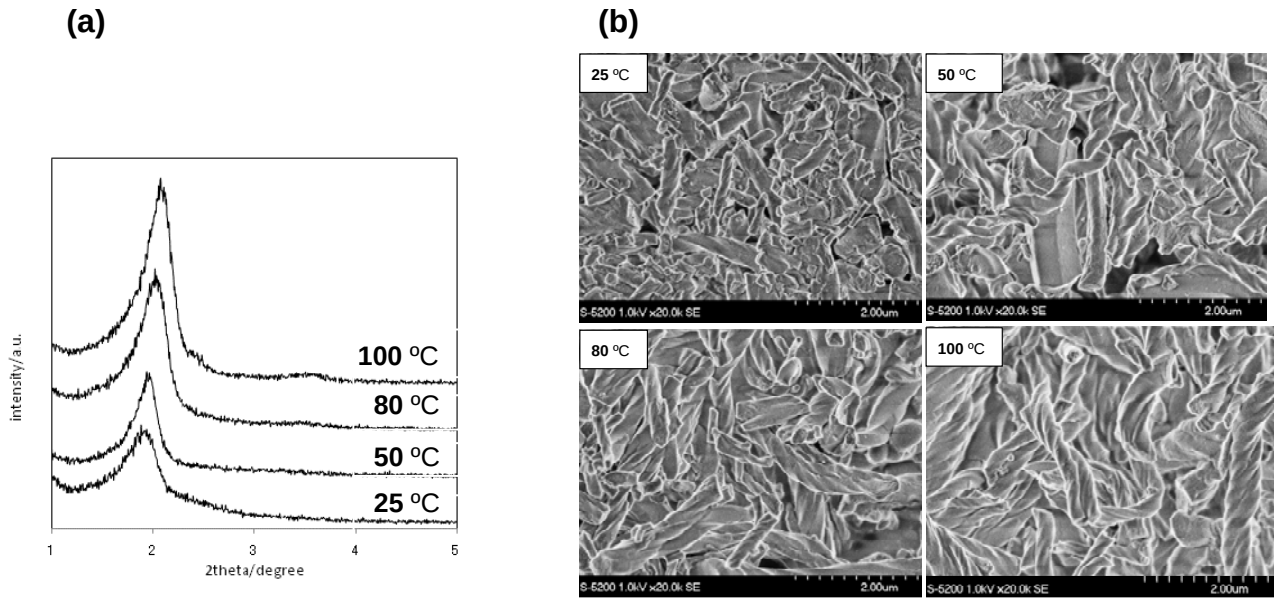


Figure S3
XRD pattern of the surfactant-extracted 100 % right-handed chiral mesoporous organosilica.



Figures S4 (a) and (b)
(a) N_2 adsorption - desorption isotherms of the surfactant-extracted 100 % right-handed chiral mesoporous organosilica after the extraction and (b) corresponding pore size distribution by the BJH method using adsorption branch..



Figures S5 (a) and (b)

(a) XRD patterns and (b) SEM images of the surfactant-extracted 100% right-handed CMOS products synthesized with the temperature varied ranging from 25 to 100 ºC.

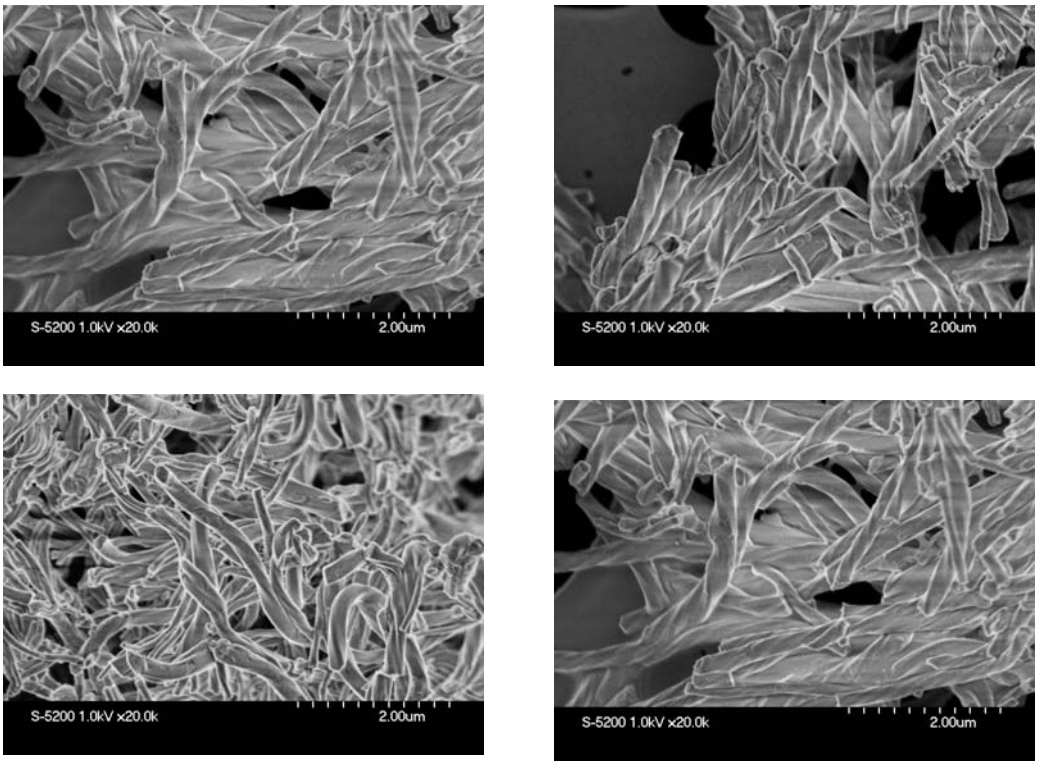
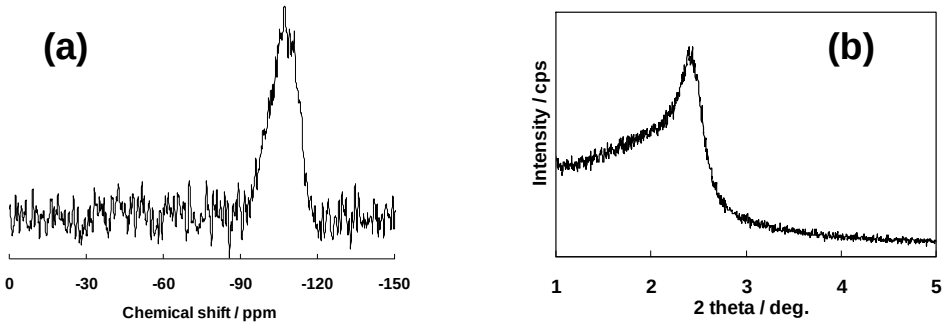
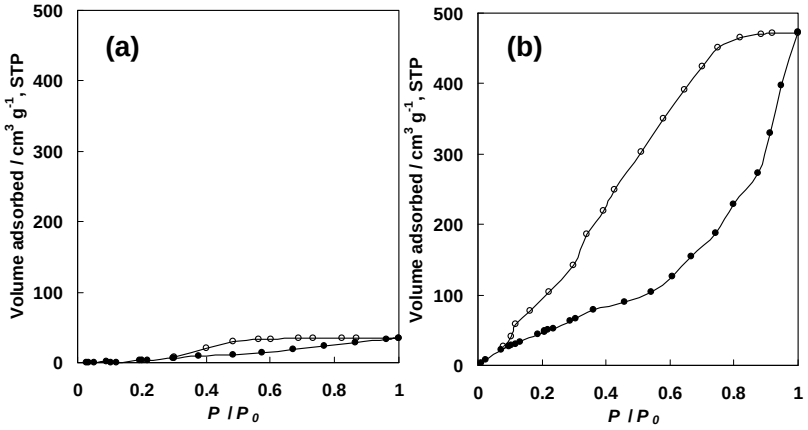


Figure S6 SEM images of the surfactant-extracted 100 % left-handed chiral mesoporous organosilica.



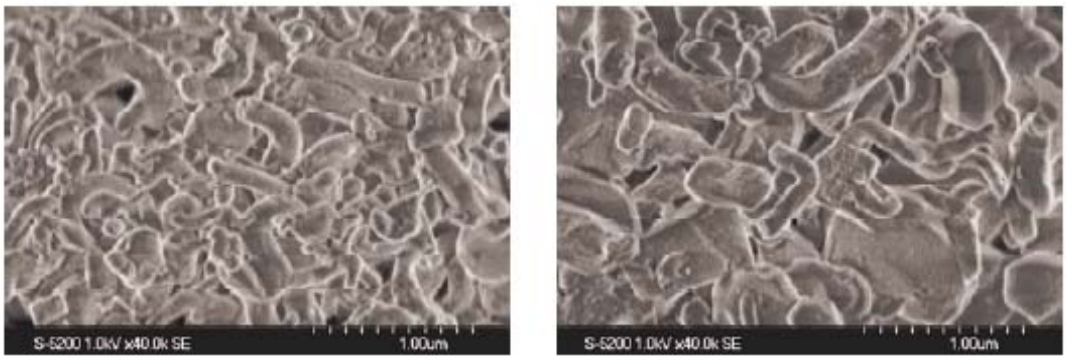
Figures S7 (a) and (b)

(a) Solid-state ^{29}Si MAS NMR spectrum and (b) XRD pattern of the calcined product.



Figures S8 (a) and (b)

H_2O adsorption - desorption isotherms of the 100% right-handed (a) CMOS and (b) CMS samples.



Figures S9 (a) and (b)

Typical SEM images of the surfactant-extracted products synthesized with the combinations of (a) C_{14}-$_L$-AlaA / $_D$-arginine and (b) C_{14}-$_D$-AlaA / $_L$-arginine.