

[*Supporting Information*]

**Mesostructure-controlled synthesis of chiral
norbornane-bridged periodic mesoporous organosilicas**

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- A.** Influence of the reaction conditions (stirring, standing and aging time) on the mesostructure-control of chiral PMO materials
- B.** ¹³C CP/MAS and ²⁹Si MAS NMR spectra of the cubic *Fm3m*-type chiral PMO material

A. Influence of the reaction conditions (stirring, standing and aging time) on the mesostructure-control of chiral PMO materials

Chiral PMO synthesized in the presence of F127, with the change of stirring time and without keeping the suspension in static conditions. In a typical synthesis, 0.25 g of F127 was dissolved in 11 mL of deionised water and 0.3 mL of 2.0 M HCl. Afterwards, 0.59 g of the chiral precursor **1** was added to the solution and stirred at 40 °C for a few hours (a = 1 h, b = 2.5 h), then the suspension was directly aged at 100 °C for 24 h in a closed PTFE autoclave. After filtration and washing thoroughly with water a white powder was obtained.

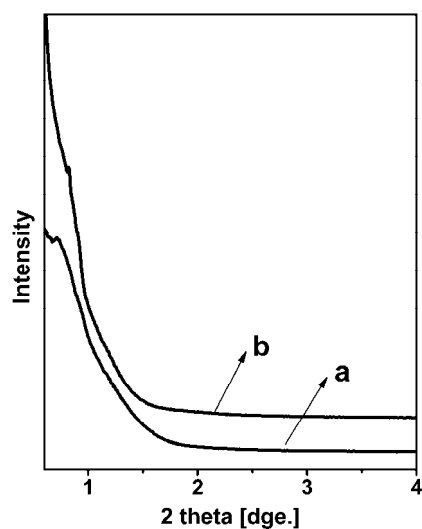


Fig. S1 Powder XRD patterns of chiral PMO materials synthesized with stirring time of (a) 1 h and (b) 2.5 h, using F127 as the template. The suspension was then, without keeping in static conditions, directly aged at 100 °C for 24 h.

Chiral PMO synthesized using co-surfactant directing agent (P123 and C₁₄₋₆₋₁₄) under different synthetic conditions. In a typical synthesis, 0.15 g of P123 and 0.02 g of C₁₄₋₆₋₁₄ was dissolved in 5 mL of deionised water and 0.15 mL of concentrated HCl. Afterwards, 0.25 g of the chiral precursor **1** was added to the solution and stirred at 40 °C for 24 h, then kept for another several hours (a = 24 h, b = 0 h, c = 24 h) under static conditions. Finally, the suspension was aged at 100 °C (a = 24 h, b = 24 h, c = 0 h) in a closed PTFE autoclave. After filtration and washing thoroughly with water a white powder was obtained.

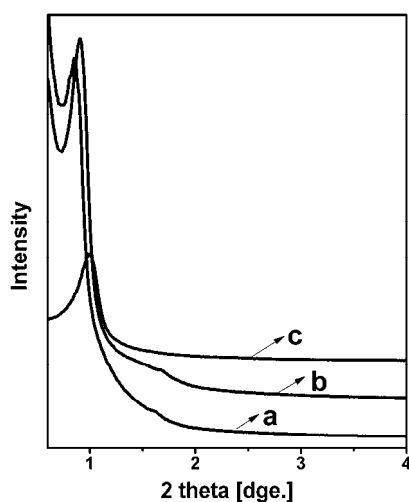


Fig. S2 Powder XRD patterns of chiral PMO materials synthesized using co-surfactant direct agent (P123 and C₁₄₋₆₋₁₄) under different synthetic conditions: (a) standard, (b) without keeping the solution in static conditions, (c) without aging.

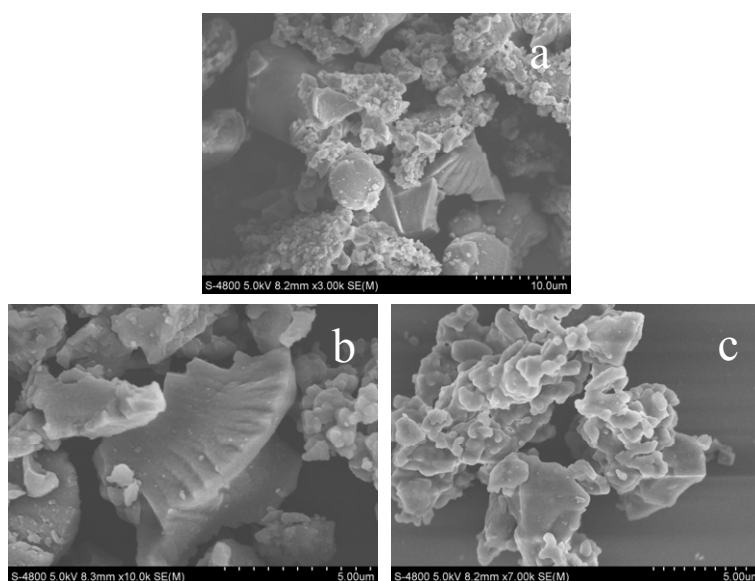


Fig. S3 SEM images of chiral PMO materials synthesized using co-surfactant direct agent (P123 and C₁₄₋₆₋₁₄) under different synthetic conditions: (a) standard, (b) without keeping the solution in static conditions, (c) without aging.

B. ^{13}C CP/MAS and ^{29}Si MAS NMR spectra of the cubic $Fm\bar{3}m$ -type chiral PMO material

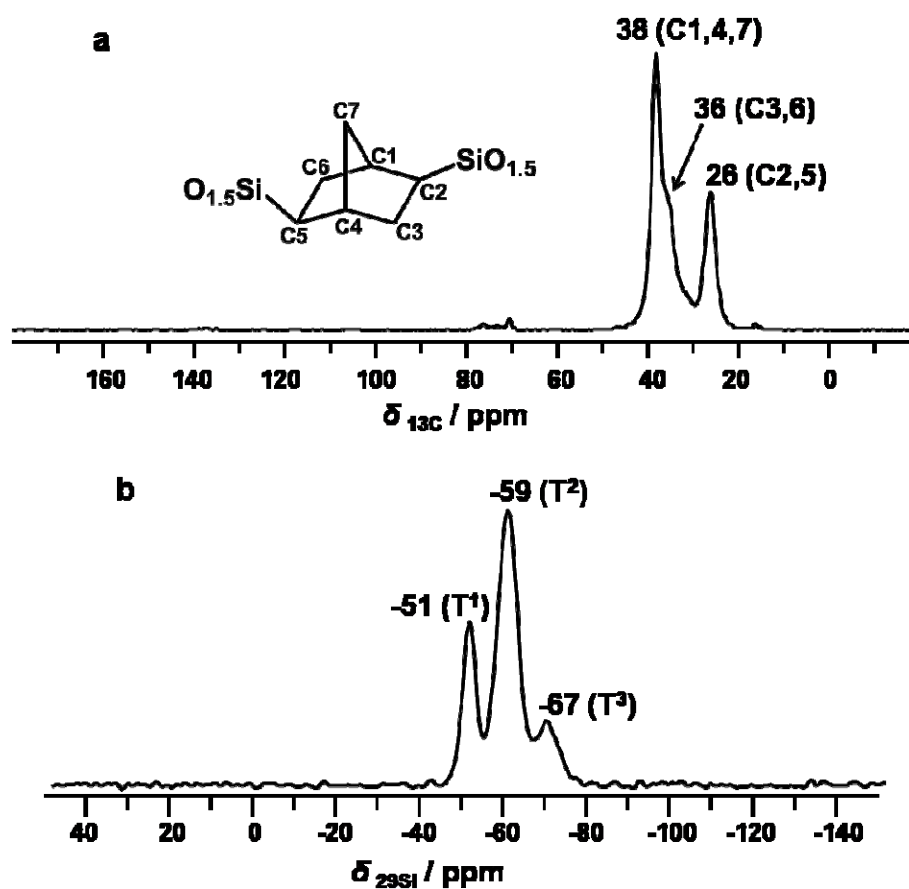


Fig. S4 ^{13}C CP/MAS (a) and ^{29}Si MAS (b) NMR spectra of the 3D cubic $Fm\bar{3}m$ -type chiral PMO material synthesized with the co-structure directing agent of P123 and C₁₄₋₆₋₁₄.