

Supporting Information

Maintaining the Structure of Tempered Porous Materials for Reactive and High Temperature Applications

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The following additional references pertaining to the different sections of the Feature Article may be helpful to readers:

Introduction.

Examples of materials with hierarchical porosity on multiple length scales.¹⁻⁶

Pore templating.

Review articles about microporous and mesoporous materials.⁷⁻¹¹
Examples of sphere syntheses and colloidal crystal preparations.¹²⁻¹⁶

Mechanical stability and disassembly.

Examples of porous carbon materials for porous electrodes,¹⁷⁻²² catalyst supports,²²⁻²⁴ and host structures for nanoparticle growth.^{13, 25-27}
Examples of syntheses of shaped nanoparticles by disassembly methods.²⁸⁻³²

Desired morphological changes: bioactive glasses.

Another example of a 3DOM bioglass material.³³

Desired morphological changes: desilication of zeolites.

Another example of the generation of mesoporous zeolites by desilication.³⁴

Effects of high temperatures on morphologies.

Related references pertaining to sintering.³⁵⁻³⁷

Solar thermochemical cycling with porous CeO₂.

Examples of studies demonstrating sintering of CeO₂ above 600 °C.³⁸⁻⁴²

Non-oxide refractories: SiC.

Examples of porous SiC materials.^{1, 43-49}

3DOM carbon at high temperatures.

Additional examples of using 3DOM carbon monoliths as hydrothermal reactors.^{13, 27}

Metallic photonic crystals at high temperature.

Examples of syntheses of 3DOM metals.⁵⁰⁻⁵⁴

Other examples of 3DOM W.^{55, 56}

High temperature synthesis of battery materials.

Examples of porous electrodes.^{17, 57-62}

Conclusions and future outlook.

Examples of some porous silicon carbide materials.⁶³⁻⁶⁵

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