

Supporting Information

Preparation and Properties of Elastic Mullite Fibrous Porous Materials with Excellent High-Temperature Resistance and Thermal Stability

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Table S1. Thickness, peak stress, bulk density and the fiber volume fraction of ASFPM1 before and after heat treatment at different temperatures.

Sample	Thickness (mm)	Peak stress (kPa, 50% strain)	Bulk density (g·cm ⁻³)	Fiber volume fraction (%)
ASFPM1-25 °C	31.5	32.9	0.11	3.4
ASFPM1-600 °C	34.6	72.5	0.10	3.1
ASFPM1-1100 °C	28.9	101.4	0.12	3.8

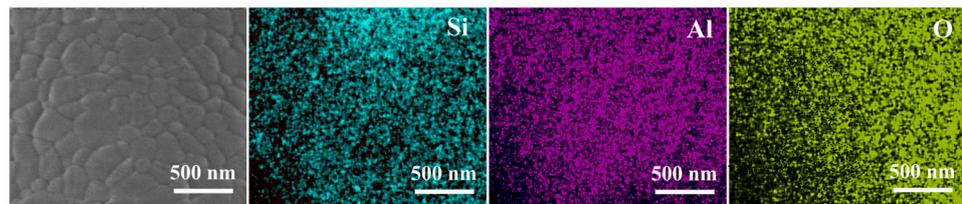


Figure S1. EDS mapping of ASF2 after heat treatment at 1500 °C.

The EDS mapping of the fiber surface in ASF2 is shown in Figure S1. Results show that ASF2 after heat treatment at 1500 °C includes Si, Al, and O elements, and all the elements are distributed evenly on the surface of the fiber surface. Combined with the XRD results, the distribution of elements corresponds to the mullite phase.