Probing thermal conductivity of extremely porous media

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Résumé

Introducing porosity into materials reduces their thermal conductivity. Here, we report on our measurements of the thermal conductivity of extremely porous materials. We employed the Laser Flash Analysis (LFA) method to measure the thermal conductivity at and above room temperature in various atmospheres. We compare materials based on foams composed of carbon with other low dense and conductive materials such as styrofoam, cork or air.

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