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Supporting Information

Very Low Thermal Conductivity in Lanthanum Phosphate-Zirconia Ceramic Nanocomposites Processed by a Precipitation-Peptization Synthetic Approach

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<u>0.2 µn</u>

S1. Morphology of as precipitated and peptized LaPO₄

Fig. S1 TEM images of as precipitated and peptized LaPO₄.

S2. Morphology of calcined LaPO₄

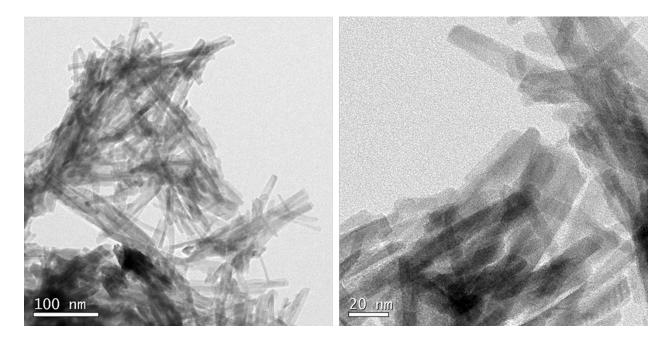


Fig. S2 TEM images LaPO₄ calcined at 800 °C.

S3. Phase identification of LaPO₄ at various stages of processing

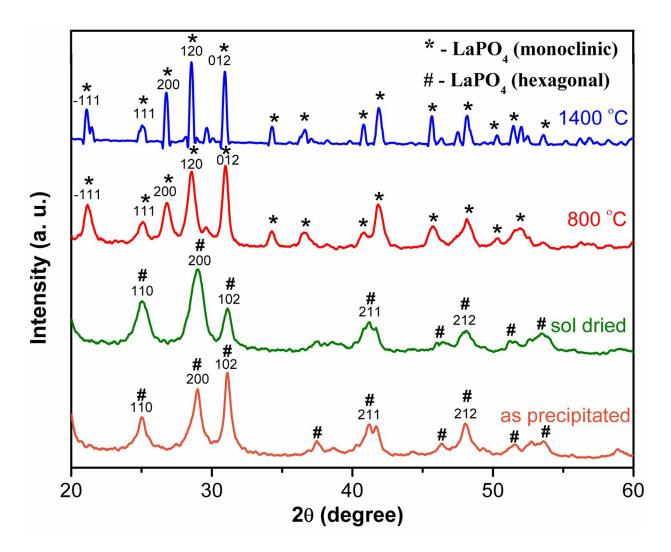


Fig. S3 X-ray Diffraction pattern of LaPO₄ as precipitated, as peptized, sol dried at 800 and 1400 $^{\circ}$ C.

S4. SEM analysis of sintered LaPO₄

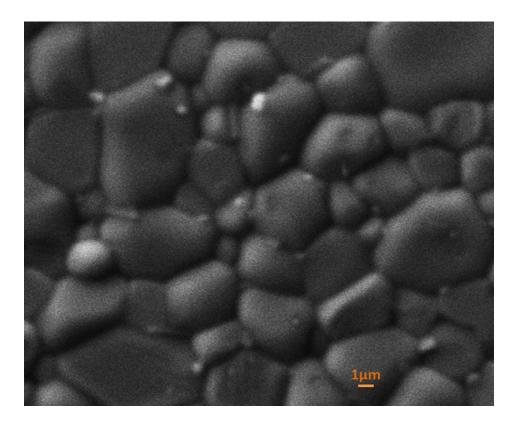


Fig. S4 SEM image of the 1600 °C sintered and etched LaPO₄ sample.