

## **ATHERMALLY ENHANCED HIGH TEMPERATURE PLASTIC FLOW IN ZIRCONIA CERAMICS UNDER FLASH EVENT**

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We have experimentally demonstrated that high-temperature superplastic flow in densified, fine-grained tetragonal zirconia polycrystal is highly enhanced by flash event. The flash event accelerates the cation diffusion in an athermal manner, leading to a decrease in the flow stress and acceleration of deformation speed. This process can also be applied to ceramic-to-ceramic self-joining.