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Effects of Growth Stress in Finite-Deformation Thermally Grown Oxide on Failure Mechanism of Thermal Barrier Coatings

Q. Shen, L. Yang, Y.C. Zhou, Y.G. Wei, W. Zhu

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Highlights

- A finite deformation growth stress and TGO evolution model is developed;
- TGO evolution and stress distributions is investigated based on the developed model by finite element method;
- The interface roughness is a significant factor to influence the stress state and TGO growth.

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