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Phase evolution, interdiffusion and failure of $\text{La}_2(\text{Zr}_{0.7}\text{Ce}_{0.3})_2\text{O}_7$ / YSZ thermal barrier coatings prepared by electron beam-physical vapor deposition

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thermal barrier coatings prepared by electron beam-physical vapor
deposition**

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Abstract

$\text{La}_2(\text{Zr}_{0.7}\text{Ce}_{0.3})_2\text{O}_7$ (LZ7C3) has attracted great interest for thermal barrier
coatings (TBCs) because it presents extremely low thermal conductivity, high thermal
stability and is more resistant to sintering than yttria stabilized zirconia (YSZ). In the
present study, an LZ7C3/YSZ double-ceramic-layer (DCL) TBC was deposited by
electron beam-physical vapor deposition (EB-PVD) and the TBC system was

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