

THERMAL BARRIER COATINGS WITH LOW THERMAL CONDUCTIVITY

ABSTRACT OF THE DISCLOSURE

A thermal barrier coating comprising from 9.0 to 23 mol% Gd_2O_3 , from 0.5 to 51.0 mol% of at least one first oxide selected from the group consisting of La_2O_3 , Sm_2O_3 , Tb_2O_3 , Tm_2O_3 , Ho_2O_3 , Lu_2O_3 , MgO , CaO , Pr_2O_3 , Nd_2O_3 , Eu_2O_3 , Dy_2O_3 , Er_2O_3 , Yb_2O_3 , In_2O_3 , Sc_2O_3 , and mixtures thereof, combined with at least 40 mol% of an oxide selected from the group consisting of zirconia, hafnia, and ceria.