REDUCED THERMAL CONDUCTIVITY THERMAL BARRIER COATING BY ELECTRON BEAM-PHYSICAL VAPOR DEPOSITION PROCESS

ABSTRACT

A method for reducing thermal conductivity in thermal barrier coatings broadly includes the steps of depositing a mixture containing a ceramic matrix and a metallic dispersant capable of forming a metal oxide upon a substrate to form one or more layers; and heating the layers at a temperature and for a time sufficient to oxidize the metallic dispersant and form one or more layers of a thermal barrier coating.

FIGURE 1