

ABSTRACT

PLASMA APPLICATION OF THERMAL BARRIER COATINGS WITH REDUCED
THERMAL CONDUCTIVITY ON COMBUSTOR HARDWARE

A process for forming a thermal barrier coating comprises the steps of providing a substrate, providing a gadolinia stabilized zirconia powder, and forming a thermal barrier coating having at least one of a porosity in a range of from 5 to 20% and a dense segmented structure on said substrate by supplying the gadolinia stabilized powder to a spray gun and using an air plasma spray technique.

FIGURE 1