YTTRIA-STABILIZED ZIRCONIA SLURRY AND METHODS OF APPLICATION THEREOF

ABSTRACT

Coated components, along with methods of their formation, are provided. The coating may include a component having a surface and a coating over the surface of the component. The coating may include a first plurality of coarse micrograins having an coarse median grain size of greater than 10 μm to 20 μm, a second plurality of medium micrograins having a medium median grain size of 4 μm to 10 μm, a third plurality of fine micrograins having a fine median grain size of 0.001 μm to less than 4 μm. Each of the coarse micrograins, medium micrograins, and fine micrograins may include, independently, a yttria-stabilized zirconia (YSZ) constituent having a chemical formula of $(ZrO_2)_{(1-x)}(Y_2O_3)_x$ with x is from greater than 0 to less than 1.

[Figure 1]