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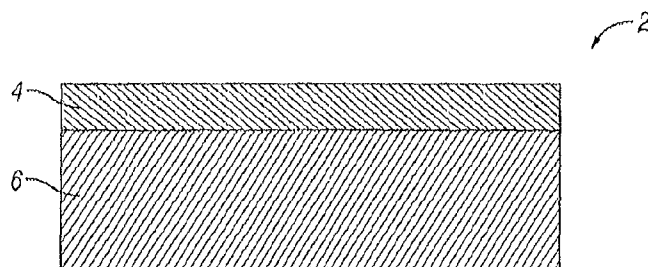


FIG. 1

(57) Abstract: An environmental barrier coating composition for a ceramic matrix composite is provided that includes a doped rare earth disilicate layer over the ceramic matrix composite. The doped rare earth disilicate includes a disilicate having a composition of $\text{RE}_2\text{Si}_2\text{O}_7$. The RE is selected from the group consisting of at least one of lutetium, ytterbium, thulium, erbium, holmium, dysprosium, terbium, gadolinium, europium, samarium, promethium, neodymium, praseodymium, cerium, lanthanum, yttrium, and scandium.

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