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PROTECTION OF A GAS TURBINE COMPONENT BY A VAPOR-DEPOSITED OXIDE COATING

ABSTRACT

A gas turbine component (30), such as a turbine disk (36, 40) or a turbine seal element (44, 46, 48), is protected by depositing an oxide coating (60) on the gas turbine component (30). The deposition is performed by a vapor deposition process such as metal-organic chemical vapor deposition (MOCVD) to a coating thickness of from about 0.2 to about 50 micrometers, preferably from about 0.5 to about 3 micrometers. The deposited oxide may be an oxide of aluminum, silicon, tantalum, titanium, and chromium.



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Fig. 1