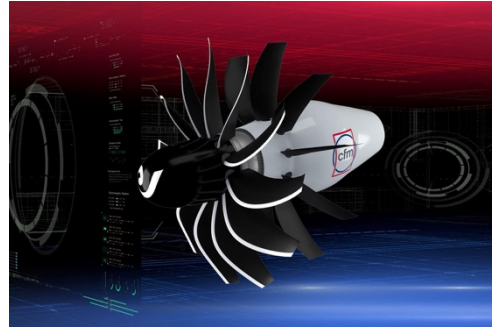


00E_High Temperature



CMCs



(a) Two failure modes in ceramic-ceramic composites. (b) Extensive pull-out of SiC fibers in a glass matrix provides good composite toughness. (From Metals Handbook, American Society for Metals, Vol. 8, 9th Ed., 1985) (c) Bridging of some fibers across a crack enhances the toughness of a ceramic-matrix composite. (From Journal of Metals, May 1991)

The issue in the application of ceramics at high temperature is their brittle behavior. This has recently been overcome by using composites which have pseudo ductility because the fibers provide stress bearing capability even when some of them have fractured.