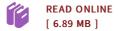


Thermal and Environmental Barrier Coatings for Advanced Turbine Engine Applications

By Robert A. Miller

BiblioGov. Paperback. Book Condition: New. This item is printed on demand. Paperback. 40 pages. Dimensions: 9.7in. x 7.4in. x 0.1in.Ceramic thermal and environmental barrier coatings (TEBCs) will play a crucial role in advanced gas turbine engine systems because of their ability to significantly increase engine operating temperatures and reduce cooling requirements, thus help achieve engine low emission and high efficiency goals. Advanced TEBCs are being developed for the low emission SiCSiC ceramic matrix composite (CMC) combustor applications by extending the CMC liner and vane temperature capability to 1650 C (3000 F) in oxidizing and water vapor containing combustion environments. Low conductivity thermal barrier coatings (TBCs) are also being developed for metallic turbine airfoil and combustor applications, providing the component temperature capability up to 1650 C (3000 F). In this paper, ceramic coating development considerations and requirements for both the ceramic and metallic components will be described for engine high temperature and high-heat-flux applications. The underlying coating failure mechanisms and life prediction approaches will be discussed based on the simulated engine tests and fracture mechanics modeling results. This item ships from La Vergne,TN. Paperback.



Reviews

The publication is simple in read easier to comprehend. It really is rally interesting through looking at time period. I found out this book from my i and dad suggested this pdf to discover.

-- Shakira Kunde

Very helpful to all of group of men and women. It can be writter in easy terms instead of confusing. You will like how the writer write this book. -- Dr. Daren Mitchell PhD

DMCA Notice | Terms