Research Areas

Energy
Materials Processing

Research Interests

David Poerschke's research seeks to understand the evolution of materials in complex chemical, thermal, and mechanical environments. Combining experimental observations with theoretical models, he develops design-performance frameworks to accelerate the development of new materials offering improved performance. His past efforts have lead to the development of improved ceramic coatings for use in jet engines and provided new understanding of the life-limiting oxidation processes in ceramic composites for turbine engine and hypersonic vehicle applications. Poerschke is an active member of the American Ceramics Society, and serves as a contributing editor for NIST-ACeS Phase Equilibria Diagrams Database.

Awards

NDSEG Fellowship 2009-2011

Selected Publications


