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SYSTEMSHigh Velocity Suspension Flame Sprayed (HVSFS) Hydroxyapatite Coatings for Biomedical Applications; COATINGS TO RESIST WEAR, EROSION, AND TRIBOLOGICAL LOADINGS; Ceramic/Metal-Polymer Multilayered Coatings for Tribological Applications Under Dry Sliding Conditions; Application of HVOF for High Performance Cylinder Liner Coatings; Multilayer Coatings for Anti-Corrosion Applications; ENVIRONMENTAL BARRIER COATINGS FOR TURBINE ENGINES AND EXTREME ENVIRONMENTS Plasma Spray-Physical Vapor Deposition (PS-PVD) of Ceramics for Protective CoatingsAn Yb2Si2O7 Oxidation Resistance Coating for C/C Composites by Supersonic Plasma Spray; FUNCTIONALLY GRADED COATINGS AND INTERFACES; Development of Oxide Ceramic APS Coatings for Microwave Absorption; THERMAL BARRIER COATINGS; Hot Corrosion of Potential Thermal Barrier Coating Material (Sm1-xYbx) 2Zr2O7 by V2O5 and Na2SO4; Variation of Creep Properties and Interfacial Roughness in Thermal Barrier Coating Systems MATERIALS FOR EXTREME ENVIRONMENTS: ULTRA HIGH TEMPERATURE CERAMICS (UHTCS) AND NANOLAMINATED TERNARY CARBIDES AND NITRIDES (MAX PHASES)Temperature and Strain-Rate Dependent Plasticity of ZrB2 Composites from Hardness Measurements; Nano-Crystalline Ultra High Temperature HfB2 and HfC Powders and Coatings Using a Sol-Gel Approach; Pressureless Sintering and Hot-Pressing of Ti2AIN Powders Obtained by SHS Process; Diffraction Study of Self-Recovery in Decomposed AI2Ti05 during Vacuum Annealing; Kinetics of Phase Decomposition in Ti4AIN3 and Ti2AIN-A Comparative Diffraction Study; Author Index

Sommario/riassunto

This book is a collection of papers from The American Ceramic Society's 35th International Conference on Advanced Ceramics and Composites, held in Daytona Beach, Florida, January 23-28, 2011. This issue includes papers presented in the Advanced Ceramic Coatings for Structural, Environmental, and Functional Applications and Materials for Extreme Environments symposia on topics such as Coatings to Resist Wear, Erosion and Tribological Loadings; Environmental Barrier Coatings; Functionally Graded Coatings and Interfaces; Thermal Barrier Coatings; and Ultrahigh Temperature Ceramics and Nanolaminat