

MD-Vol. 44

CERAMIC COATINGS



EDITED BY

K. Kokini

CONTENTS

Burner-Rig Performance of Density-Graded EB-PVD Processed Thermal Barrier Coatings <i>K. Fritscher and U. Schulz</i>	1
Fatigue of Coated Materials <i>Y. Sugimura and S. Suresh</i>	9
Quantification of Coating Cracks in Ceramic Coatings <i>S. W. Yurgartis, B. E. Mast, and M. D. Bush</i>	15
Interfacial Cracking of FGM/Metal Bonds <i>F. Erdogan and Y. F. Chen</i>	29
Finite Element Simulation of Indentation of Thin Coatings <i>J. E. Ritter</i>	39
Interface Fracture Analysis of Bonded Ceramic Layers Using Enriched Finite Elements <i>A. C. Kaya and H. F. Nied</i>	47
Multilayer Ceramic Coating Architecture Against Surface Thermal Fracture <i>B. D. Choules and Klod Kokini</i>	73
Expanding Application Areas for New Generation Thin Film Wear Resistant Coatings <i>Frederick J. Teeter</i>	87
Cutting Performance of Ceramic Coated Tools in Machining High Tensile Steel <i>X. S. Li, I. M. Low, J. G. Wager, and D. S. Perera</i>	101
Nondestructive Quality Assurance of PVD/CVD Ceramic Coated WC/Co Cermets <i>Tatsuhiko Aizawa, Manabu Itoh, and Junji Kihara</i>	111
Experimental Studies of Air Plasma Sprayed Alumina Coatings <i>T. J. Steeper, A. J. Rotolico, J. E. Nerz, W. L. Riggs II, D. J. Varacalle, Jr., and G. C. Wilson</i>	133
Thermally Induced Initiation of Interface Edge Cracks in Multilayer Ceramic Thermal Barrier Coatings <i>Michael Case and Klod Kokini</i>	149
Behavior of Subsurface-Modified EB-PVD Processed Thermal Barrier Coatings on Cyclic Tests <i>U. Schulz and K. Fritscher</i>	163
YTTRIA Stabilized Hafnia-Zirconia Thermal Barrier Coatings: Influence of Hafnia Addition on TBC Structure and High Temperature Behavior <i>H. Ibégazène, S. Alperine, and C. Diot</i>	173
Thermal Fatigue Characteristics of Functionally Gradient Materials Under High Temperature Gradient Conditions <i>Akinaga Kumakawa and Masayuki Niino</i>	197

Electroless Ni Interlayer Modified TiN Coating by RF Sputtering <i>J. G. Duh, J. C. Doong, and C. T. Huang</i>	209
Thermally Induced Stresses in Coating Layer on Prismatic Bars of Orthotropic Composite Material <i>Sang J. Lee</i>	217
Author Index	237