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Nota di contenuto	Advanced Engineering Ceramics and Composites; Committee Members and Preface; Table of Contents; Silicon Carbide and Composites; Microstructure and Properties of Three Phase Carbon and Ceramic Matrix Composites; Microstructure and Mechanical Properties of Joints in Sintered SiC Fiber-Bonded Ceramics; New Technology with Porous Materials; Progress in the Development of the Diesel Vehicle Business; Oxidation Behavior of ZrB2-15vol.%SiC at an Oxygen Partial Pressure of 57 Pa; Joining of SiC by Tape-Cast SiC-Al2O3-Y2O3 Interlayer Friction Surface Damage of Carbon-Fibre Reinforced Carbon-Silicon Carbide Composites (Cf/C-SiC)The Machinability of 3D-C/SiC Composites; The SH - Synthesis of Ceramic Based on Titanium Carbide and Silicon Carbide Composite Materials; Nitride Ceramics; Silicon Nitride Grain Boundary Glasses: Chemistry, Structure and Properties; The Effect of Heat-Treatment on Thermal Conductivity of Silicon Nitride

Ceramics; Fabrication and Microstructure of Electrically Conductive AlN with High Thermal Conductivity
Analyses of Microstructure and Oxygen Content Effects on Thermal Conductivity of AlN Ceramics by Using Slack's Plot Fabrication of Silicon Nitride-Based Nano/Nano-Composite; Slip Casting of -Sialon/AlN/BN Powder Carbothermally Prepared by Boron-Rich Slag-Based Mixture; Mechanical Properties of Ceramics; Impact Fracture Behavior of Ceramics and PE-Fiber-Reinforced Mortars; Grain-Boundary Segregation and Phase-Separation Mechanism in Yttria-Stabilized Tetragonal Zirconia Polycrystal; Strengthening Mechanism of High-Strength Reaction-Sintered Silicon Carbide
Young's Modulus and Poisson's Ratio of Liquid Phase-Sintered Silicon Carbide Mechanical Properties of Alumina Matrix Composites due to a Combination of Sr- and Ca-Hexaluminates; Sintering of Ceramics; Grain Size Effect in the Electrical Properties of Nanostructured Functional Oxides through Pressure Modification of the Spark Plasma Sintering Method; Sintering of Silicon Carbide Ceramics with Co-Addition of Gadrinium Oxide and Silica and their Mechanical Properties; Densification, Phases, Microstructures and Mechanical Properties of Liquid Phase-Sintered SiC
WC/Ti Composite Material Enriched with CBN Particles Produced by Pulse Plasma Sintering (PPS)Fabrication of Transparent La2Zr2O7 by Reactive Spark Plasma Sintering; Ceramics Coating; Environmental Barrier Coatings for Silicon Nitride; Optical and Tribological Properties of Silicon Carbide Thin Films Grown by Reactive DC Magnetron Sputtering; Characterization of Thermal Properties of Micro-Sized Ceramic Powders for APS Deposition of Ceramic Layers
Optimization of Alumina Slurry Properties and Drying Conditions in the Spray Drying Process and Characterization of Corresponding Coating Fabricated by Atmospheric Plasma Spray

Sommario/riassunto

The cutting edge of engineering ceramic research is evolving rapidly, leading into new fields far beyond the conventional image of ceramics. Careful tailoring of micro- and nano-structures, in particular, is yielding superior mechanical and chemical properties, such as high hardness, high strength, good heat/corrosion resistance and good tribological properties. This special collection comprises papers from researchers working in the fields of ceramics and composites and thus provides an opportunity for the cross-pollination of knowledge and experience in interdisciplinary fields of materials