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Nota di contenuto	Testing and Evaluation of Advanced Building Materials; Preface; Table of Contents; 29Si NMR Characterization of Silica Tetrahedron in the Silica Fume Simulate Hydration; Investigation of Early Cement Paste with 1H Low-Field NMR; The Application of Freezing-Melting Hysteresis in Hardened White Cement Paste; An Experimental Study of Water in Pore System of Hardened Cement Paste by Magnetic Resonance; Quantitative Characterization of Hydration of Cement Pastes by Rietveld Phase Analysis and Thermoanalysis; Kinetic Study of Portland Cement Hydration with Ground Penetrating Radar Study on the Hydration Kinetics of Portland CementRelationship between Internal Relative Humidity and Autogenous Shrinkage of Cement Paste with Supplementary Cementitious Materials (SCM); A Testing Device for Humidity-Control Performance of Pervious Concrete; An Evaluation of Shrinkage Model Based upon Microstructure of Blended Cement Pastes; Early-Age Free Shrinkage of Mortars with Different Dosages of EVA Redispersible Powder; Shrinkage of Blended Cement Pastes with Mineral Additions; Relative Humidity of Blended Cement Pastes in Sealed during Hydration Effect of Hollow Glass Microsphere on Performance of Foam ConcreteEffects of Rubber Powder and Fly Ash on Mechanical Properties

of Recycled Mortars; Micromechanical Properties of Calcium Silicate Hydrate; Probing Nanostructure of Calcium Silicate Hydrate by AFM and Nanoindentation; Study on the Unhydrated Cement Grain/C-S-H Gel Interface in Cement Paste by Use of Nano-Scratch Technique; Temperature Sensitive Properties of Hybrid Carbon Nanotube/Carbon Fiber Cement-Based Materials; Research on Optimizing the Electrical and Mechanical Properties of Carbon Fiber Reinforced Cement Mechanical Property of Hybrid Steel Fiber Reinforced Cement-Based CompositesEnhancing the Thermoelectric Properties in Carbon Fiber/Cement Composites by Using Steel Slag; Seismic Behaviour of RC Columns Strengthened with Steel Bar/Wire Mesh Mortar; Carbonation Profile of Cement Paste and Concrete Established with Micro-Hardness Analysis; Effect of Activated Water Treatment Sludge on Carbonation of Mortar; Effect of Fly Ash on Resistance to Sulfate Attack of Cement-Based Materials; Study of Durability Analysis and Evaluation Model for Existing Concrete Structure in Coastal Areas
The Effect of Fly Ash on TSA of Cementitous Material: Based on Three Years ResultsStudy of Mechanical Force on Coal Gangue Reactivity; The Effect of Electrochemical Chloride Extraction Combining Ultrasonic on Steel-Reinforced Mortars; Tentative Study on Sonoelectrochemical Chloride Extraction from Mortar; Analysis of Bond and Anchorage Performances of Helical and Twisted Reinforcement Material; Research on Modification of Steady State Migration Test for Cementitious Materials; Study on Hydration Degree of Portland Cement-Slag Complex Binders
Study on Pore Structure Characterization of Concrete at Different Ages by Thermoporometry

Sommario/riassunto

The main aim of this collection was to provide a platform for academics, industrialists and students from various regions of China to exchange ideas and the state-of-the-art development in the field of building materials and testing techniques. Finally, 53 papers were accepted for publication. The contents of papers include the microscopic theoretical model of the building materials, the characterization of the compositions and structures, performance testing and evaluation. The papers largely reflect the latest advances in the testing and evaluation theory and technology of building materials