

Papers Published in Volume 19

Volume 19 Number 1

Special Issue

FIBER OPTIC SENSORS

- 1 Guest Editorial
- 3 State-of-the-art in the applications of fiber-optic sensors to cementitious composites
F. ANSARI (USA)
- 21 Fiber-optic Bragg grating sensors for bridge monitoring
R. MAASKANT, T. ALAVIE, R. M. MEASURES, G. TADROS, S. H. RIZKALLA & A. GUHA-THAKURTA (Canada)
- 35 Distributed water ingress and water potential measurements using fibre optics
W. C. MICHIE, B. CULSHAW, A. McLEAN, M. KONSTANTAKI & S. HADJILOUCAS (UK)
- 45 Distributed fiber Bragg grating strain sensing in reinforced concrete structural components
M. A. DAVIS, D. G. BELLEMORE & A. D. KERSEY (USA)
- 59 Fiber-optic crack-tip opening displacement sensor for concrete
I. LEE, Y. LIBO, F. ANSARI & H. DING (USA)
- 69 Implementation of EFPI-based optical-fiber sensor instrumentation for the NDE of concrete structures
M. DE VRIES, V. ARYA, S. MELLER, S. F. MASRI & R. O. CLAUS (USA)
- 81 Deformation measurements of mortars at early ages and of large concrete components on site by means of embedded fiber-optic microstrain sensors
W. R. HABEL, D. HOFMANN & B. HILLEMEIER (Germany)
- 103 News: conferences and symposia

Volume 19 Number 2

- 107 Fiber-reinforced concrete: an overview after 30 years of development
R. F. ZOLLO (USA)
- 123 Carbonation of concrete structures in hot dry coastal regions
M. N. HAQUE & H. AL-KHAIAT (Kuwait)
- 131 Condition assessment of reinforced concrete beams relative to reinforcement corrosion
R. HUANG & C. C. YANG (Taiwan)
- 139 Fibre-matrix adhesion in fibre reinforced CAC-MDF composites
R. DI MAGGIO, M. FRANCHINI, G. GUERRINI, S. POLI & C. MIGLIARESI (Italy)
- 149 The effects of confinement on the failure orientation in cementitious materials. Experimental observations
C. A. RUTLAND & M. L. WANG (USA)
- 161 The effect of cement composition and pH of environment of sulfate resistance of Portland cements and blended cements
H. T. CAO, L. BUCEA, A. RAY & S. YOZGHATLIAN (Australia)
- 173 Conference report
- 177 Conference announcement
- 179 News: conferences and symposia

Volume 19 Number 3

Special Issue

KOBE EARTHQUAKE

- 183 Guest Editorial
- 185 Japanese seismic design codes prior to Hyogoken–Nanbu Earthquake
H. OKAMURA (Japan)
- 193 Study on the design earthquake resistance and degree of earthquake damage of reinforced concrete viaducts
T. ISHIBASHI & H. OKAMURA (Japan)
- 203 Behavior of reinforced concrete buildings during the Hyougoken–Nanbu Earthquake
F. WATANABE (Japan)
- 213 Nonlinear analysis of a reinforced concrete building with a soft first story collapsed by the 1995 Hyogoken–Nanbu Earthquake
M. YOSHIMURA (Japan)
- 223 A study of the damage of subway structures during the 1995 Hanshin–Awaji Earthquake
S. SAMATA, H. OHUCHI & T. MATSUDA (Japan)
- 241 The collapse mechanism of a subway station during the Great Hanshin earthquake
X. AN (Japan), A. A. SHAWKY (Egypt) & K. MAEKAWA (Japan)
- 259 Damage to concrete piles in buildings
K. NAGAI (Japan)
- 281 News: conferences and symposia

Volume 19 Number 4

- iii Guest Editorial
- 285 Mechanical properties and frost resistance of silica fume concrete
B. B. SABIR (UK)
- 295 Hydration process in $3\text{CaO} \cdot \text{SiO}_2$ -silica fume mixtures
M. GEORGESCU & A. BADANOIU (Romania)
- 301 Effect of chrysotile asbestos on cement hydration
T. FERIC, R. KRSTULOVIC, J. PERIC & P. KROLO (Croatia)
- 307 Mechanical properties of steel fiber-reinforced, high strength, lightweight concrete
J. GAO, W. SUN (China) & K. MORINO (Japan)
- 315 Tension softening of fibre-reinforced cementitious composites
D. LANGE-KORNBÄCK (Australia) & B. L. KARIHALOO (Denmark)
- 329 Toughness measurements on steel fibre-reinforced high strength concrete
M. TAYLOR, F. D. LYDON & B. I. G. BARR (UK)
- 341 Dynamic properties of polypropylene fiber-reinforced concrete slabs
G. D. MANOLIS (Greece), P. J. GAREIS (USA), A. D. TSONOS (Greece) &
J. A. NEAL (USA)
- 351 Durability characteristics of concrete beams externally bonded with FRP
composite sheets
H. A. TOUTANJI (USA) & W. GÓMEZ (Puerto Rico)
- 359 Shear behaviour of fiber reinforced concrete beams
S. FURLAN JR. & J. B. DE HANAI (Brazil)
- 367 The effectiveness of palm oil fuel ash in preventing expansion due to alkali-silica
reaction
A. S. M. ABDUL AWAL & M. WARID HUSSIN (Malaysia)
- 373 Durable repair of aged infrastructures using trapping mechanism of engineered
cementitious composites
Y. M. LIM (Korea) & V. C. LI (USA)
- 387 News: conferences and symposia

Special Issue

**ALKALI SILICA REACTION
—A REVIEW**

- iii Guest Editorial

- 391 Alkali silica reactions—some paradoxes
 S. DIAMOND (USA)

- 403 A critical review of ultra-accelerated tests for alkali–silica reactivity
 P. E. GRATTAN-BELLEW (Canada)

- 415 Assessment and rehabilitation of AAR-affected structures
 R. N. SWAMY (UK)

- 429 Modelling of expansion induced by ASR—new approaches
 M. MORANVILLE-REGOURD (France)

- 441 Where is AAR heading after the 10th International Conference?
 A. SHAYAN (Australia)

- 451 Accelerated tests for assessing the potential exhibited by concrete aggregates
 for alkali-aggregate reaction
 B. J. WIGUM (Norway), W. J. FRENCH, R. J. HOWARTH & C. HILLS (UK)

- 477 News: conferences and symposia