

ACI MATERIALS JOURNAL

Keyword Index Volume 108, 2011 *January through December 2011*



American Concrete Institute®
Advancing concrete knowledge

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
accelerated corrosion test	Linear Polarization Resistance Tests on Corrosion Protection Degree of Post-Tensioning Grouts	108-M38	Alexandre R. Pacheco, Andrea J. Schokker, Jeffery S. Volz, and H. R. (Trey) Hamilton III	July-Aug. 2011	365
accelerating admixture	Self-Accelerated Reactive Powder Concrete Using Partially Hydrated Cementitious Materials	108-M63	Ahmed M. Soliman and Moncef L. Nehdi	Nov.-Dec. 2011	596
acoustic emission	Signal-Based Acoustic Emission Monitoring on Mortar Using Cement-Based Piezoelectric Sensors	108-M20	Youyuan Lu, Zongjin Li, and Lei Qin	Mar.-Apr. 2011	178
acoustic emission analysis	Damage Behavior of Yarn Embedded in Concrete Using Acoustic Emission Analysis	108-M12	Bong-Gu Kang, Joachim Hannawald, and Wolfgang Brameshuber	Jan.-Feb. 2011	95

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
activation	Activation of Fly Ash with Dehydrated Cement Paste	108-M23	Zhonghe Shui, Rui Yu, and Jun Dong	Mar.-Apr. 2011	204
activation energy	New Model for Estimating Apparent Activation Energy of Cementitious Systems	108-M59	K. A. Riding, J. L. Poole, K. J. Folliard, M. C. G. Juenger, and A. K. Schindler	Sept.-Oct. 2011	550
adsorption	Synthesis and Properties of Amphoteric Superplasticizer	108-M65	Wenjuan Guo, Na Sun, Tao Yang, Meishan Pei, and Yingfei Wang	Nov.-Dec. 2011	614
aggregate	Unified Shrinkage Model for Concrete from Autogenous Shrinkage Test on Paste with and without Ground-Granulated Blast-Furnace Slag	108-M02	Ya Wei, Will Hansen, Joseph J. Biernacki, and Erik Schlangen	Jan.-Feb. 2011	13
aggregate size	Effect of Aggregate Size on Shear Behavior of Lightweight Concrete Continuous Slender Beams	108-M53	Keun-Hyeok Yang, Jae-II Sim, Byong-Jeong Choi, and Eun-Taik Lee	Sept.-Oct. 2011	501
aggregates	Performance of 100% Fly Ash Concrete with Recycled Glass Aggregate	108-M40	Michael Berry, Jerry Stephens, and Doug Cross	July-Aug. 2011	378
air-coupled sensors	Evaluating Surface-Breaking Cracks in Concrete Using Air-Coupled Sensors	108-M60	Seong-Hoon Kee, Eulalio Fernández-Gómez, and Jinying Zhu	Sept.-Oct. 2011	558
alkali-activated binder	Engineering Properties of Alkali-Activated Natural Pozzolan Concrete	108-M08	Dali Bondar, Cyril J. Lynsdale, Neil B. Milestone, Nemat Hassani, and Ali Akbar Ramezaniapour	Jan.-Feb. 2011	64
alkali-activated cement	Mechanical Properties of Fly-Ash-Based Geopolymer Concrete	108-M32	E. Ivan Diaz-Loya, Erez N. Allouche, and Saiprasad Vaidya	May-June 2011	300
alkali-activated slag cements	Effectiveness of Mixing Time on Hardened Properties of Waterglass-Activated Slag Pastes and Mortars	108-M09	Marta Palacios and Francisca Puertas	Jan.-Feb. 2011	73
altitude	Distribution of Chloride Accumulation in Marine Tidal Zone along Altitude	108-M49	Yi Zhang and Wei-Liang Jin	Sept.-Oct. 2011	467

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
amphoteric	Synthesis and Properties of Amphoteric Superplasticizer	108-M65	Wenjuan Guo, Na Sun, Tao Yang, Meishan Pei, and Yingfei Wang	Nov.-Dec. 2011	614
anchorage	Diverse Embedment Model for Steel Fiber-Reinforced Concrete in Tension: Model Development	108-M55	Seong-Cheol Lee, Jae-Yeol Cho, and Frank J. Vecchio	Sept.-Oct. 2011	516
anchorage	Diverse Embedment Model for Steel Fiber-Reinforced Concrete in Tension: Model Verification	108-M56	Seong-Cheol Lee, Jae-Yeol Cho, and Frank J. Vecchio	Sept.-Oct. 2011	526
autogenous shrinkage	Assessing Lightweight Aggregate Efficiency for Maximizing Internal Curing Performance	108-M41	Álvaro Paul and Mauricio Lopez	July-Aug. 2011	385
autogenous shrinkage	Evaluation of Autogenous Deformation of Concrete at Early Ages	108-M03	Sam Slatnick, Kyle A. Riding, Kevin J. Folliard, Maria C. G. Juenger, and Anton K. Schindler	Jan.-Feb. 2011	21
autogenous shrinkage	Unified Shrinkage Model for Concrete from Autogenous Shrinkage Test on Paste with and without Ground-Granulated Blast-Furnace Slag	108-M02	Ya Wei, Will Hansen, Joseph J. Biernacki, and Erik Schlangen	Jan.-Feb. 2011	13
backscattered electron image	Effect of Electrochemical Treatment in Inhibiting Corrosion of Steel in Concrete	108-M51	Ki Yong Ann, Min-Sun Jung, Hyun Bo Shim, and Myung Chul Shin	Sept.-Oct. 2011	485
beams	Fire Tests of Hybrid and Carbon Fiber-Reinforced Polymer Bar Reinforced Concrete Beams	108-M27	Muhammad Masood Rafi and Ali Nadjai	May-June 2011	252
bending	Impact Behavior of Textile and Hybrid Cement-Based Composites	108-M25	Efrat Haim and Alva Peled	May-June 2011	235
biaxial strength	Validation of Performance-Dependent Failure Criterion for Concretes	108-M28	Paula Folino and Guillermo Etse	May-June 2011	261
biaxial stress	Validation of Performance-Dependent Failure Criterion for Concretes	108-M28	Paula Folino and Guillermo Etse	May-June 2011	261

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
blended cement	Properties of Mortars with Natural Pozzolana and Limestone-Based Blended Cements	108-M52	Erhan Güneyisi, Mehmet Gesoglu, Turan Özturan, Kasim Mermerdas, and Erdogan Özbay	Sept.-Oct. 2011	493
bond	Diverse Embedment Model for Steel Fiber-Reinforced Concrete in Tension: Model Development	108-M55	Seong-Cheol Lee, Jae-Yeol Cho, and Frank J. Vecchio	Sept.-Oct. 2011	516
bond	Diverse Embedment Model for Steel Fiber-Reinforced Concrete in Tension: Model Verification	108-M56	Seong-Cheol Lee, Jae-Yeol Cho, and Frank J. Vecchio	Sept.-Oct. 2011	526
bond	Factors Affecting Bond between New and Old Concrete	108-M48	Pedro Miguel Duarte Santos and Eduardo Nuno Brito Santos Júlio	July-Aug. 2011	449
bond	Influence of Surface Crack Width on Bond Strength of Reinforced Concrete	108-M04	Denglei Tang, Thomas K. C. Molyneaux, David W. Law, and Rebecca Gravina	Jan.-Feb. 2011	29
bridge decks	Lightweight Aggregate as Internal Curing Agent to Limit Concrete Shrinkage	108-M68	JoAnn Browning, David Darwin, Diane Reynolds, and Benjamin Pendergrass	Nov.-Dec. 2011	638
calorimetry	New Model for Estimating Apparent Activation Energy of Cementitious Systems	108-M59	K. A. Riding, J. L. Poole, K. J. Folliard, M. C. G. Juenger, and A. K. Schindler	Sept.-Oct. 2011	550
carbon dioxide	Measurement Device and Characteristics of Diffusion Coefficient of Carbon Dioxide in Concrete	108-M62	Sang Hwa Jung, Myung Kue Lee, and Byung Hwan Oh	Nov.-Dec. 2011	589
carbon nanotubes	Macro- and Micro-Characterization of Mortars Produced with Carbon Nanotubes	108-M35	Valquíria S. Melo, José M. F. Calixto, Luiz O. Ladeira, and Adriano P. Silva	May-June 2011	327
carbonation	Behavior of Fire-Damaged Mortar under Variable Re-curing Conditions	108-M30	Michael Henry, Masamitsu Suzuki, and Yoshitaka Kato	May-June 2011	281
carbonation	Estimation of Carbonation Depth Based on Hygrothermal Calculations	108-M24	Christina Giarma	Mar.-Apr. 2011	209

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
carbonation	Measurement Device and Characteristics of Diffusion Coefficient of Carbon Dioxide in Concrete	108-M62	Sang Hwa Jung, Myung Kue Lee, and Byung Hwan Oh	Nov.-Dec. 2011	589
cement	Cement-Based Piezoelectric Ceramic Composite and Its Sensor Applications in Civil Engineering	108-M58	Biqin Dong, Feng Xing, and Zongjin Li	Sept.-Oct. 2011	543
cement	Use of Water Reducers to Improve Grindability and Performance of Portland Cement Clinker	108-M66	Joseph J. Assaad and Salim E. Asseily	Nov.-Dec. 2011	619
cement composite	Impact Behavior of Textile and Hybrid Cement-Based Composites	108-M25	Efrat Haim and Alva Peled	May-June 2011	235
cement composites	Impact Behavior of Sisal Fiber Cement Composites under Flexural Load	108-M19	Flávio de Andrade Silva, Deju Zhu, Barzin Mobasher, and Romildo Dias Toledo Filho	Mar.-Apr. 2011	168
cement content	Another Look at the Relationship between Strength and Composition of Concrete	108-M13	Sándor Popovics	Mar.-Apr. 2011	115
cement-based piezoelectric sensor	Signal-Based Acoustic Emission Monitoring on Mortar Using Cement-Based Piezoelectric Sensors	108-M20	Youyuan Lu, Zongjin Li, and Lei Qin	Mar.-Apr. 2011	178
chemical analysis	Behavior of Fire-Damaged Mortar under Variable Re-curing Conditions	108-M30	Michael Henry, Masamitsu Suzuki, and Yoshitaka Kato	May-June 2011	281
chloride	Distribution of Chloride Accumulation in Marine Tidal Zone along Altitude	108-M49	Yi Zhang and Wei-Liang Jin	Sept.-Oct. 2011	467
chloride diffusion	Prediction of Equivalent Steady-State Chloride Diffusion Coefficients	108-M11	Pratanu Ghosh, Alex Hammond, and Paul J. Tikalsky	Jan.-Feb. 2011	88
chloride ingress	Permeation Properties of Self-Consolidating Concretes with Mineral Admixtures	108-M17	Erhan Güneysi, Mehmet Gesoglu, and Erdogan Özbay	Mar.-Apr. 2011	150

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
chloride threshold level	Effect of Electrochemical Treatment in Inhibiting Corrosion of Steel in Concrete	108-M51	Ki Yong Ann, Min-Sun Jung, Hyun Bo Shim, and Myung Chul Shin	Sept.-Oct. 2011	485
clinker	Use of Water Reducers to Improve Grindability and Performance of Portland Cement Clinker	108-M66	Joseph J. Assaad and Salim E. Asseily	Nov.-Dec. 2011	619
composite	Another Look at the Relationship between Strength and Composition of Concrete	108-M13	Sándor Popovics	Mar.-Apr. 2011	115
composite	Cement-Based Piezoelectric Ceramic Composite and Its Sensor Applications in Civil Engineering	108-M58	Biqin Dong, Feng Xing, and Zongjin Li	Sept.-Oct. 2011	543
composite portland cement	High-Energy Ball Mill Parameters Used to Obtain Ultra-Fine Portland Cement at Laboratory Level	108-M39	Juan Carlos Arteaga-Arcos, Obed Arnoldo Chimal-Valencia, David Joaquín Delgado Hernández, Hernani Tiago Yee Madeira, and Sebastián Díaz de la Torre	July-Aug. 2011	371
compressive	High-Early-Strength Engineered Cementitious Composites for Fast, Durable Concrete Repair—Material Properties	108-M01	Mo Li and Victor C. Li	Jan.-Feb. 2011	3
compressive strength	Effect of Initial On-Site Curing on 28-Day Cylinder Strength	108-M54	José Calavera, Jaime Fernández-Gómez, Germán González, Jorge Ley, and Pedro López	Sept.-Oct. 2011	510
compressive strength	Failure Behavior of Concrete Cylinders under Different End Conditions	108-M10	M. Roddenberry, R. Kampmann, M. H. Ansley, N. Bouchard, and W. V. Ping	Jan.-Feb. 2011	79
compressive strength	Ground-Granulated Blast-Furnace Slag as Potential Filler in Polyester Grout: Compressive Strength Development	108-M14	Siong Kang Lim, Tung-Chai Ling, and Mohd Warid Hussin	Mar.-Apr. 2011	120
compressive strength	Predicting Concrete Compressive Strength Using Ultrasonic Pulse Velocity and Rebound Number	108-M43	Qindan Huang, Paolo Gardoni, and Stefan Hurlebaus	July-Aug. 2011	403
compressive strength	Properties of Mortars with Natural Pozzolana and Limestone-Based Blended Cements	108-M52	Erhan Güneyisi, Mehmet Gesoglu, Turan Özturan, Kasim Mermerdas, and Erdogan Özbay	Sept.-Oct. 2011	493

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
concrete materials	Measurement Device and Characteristics of Diffusion Coefficient of Carbon Dioxide in Concrete	108-M62	Sang Hwa Jung, Myung Kue Lee, and Byung Hwan Oh	Nov.-Dec. 2011	589
concrete overlay	Mixture Proportion Development and Performance Evaluation of Pervious Concrete for Overlay Applications	108-M47	John T. Kevern, Vernon R. Schaefer, and Kejin Wang	July-Aug. 2011	439
concrete pumpability	Pumping Quality Control Method Based on Online Concrete Pumpability Assessment	108-M45	Olga Río, Ángel Rodríguez, Samir Nabulsi, and Marina Álvarez	July-Aug. 2011	423
concrete repair	High-Early-Strength Engineered Cementitious Composites for Fast, Durable Concrete Repair—Material Properties	108-M01	Mo Li and Victor C. Li	Jan.-Feb. 2011	3
concrete rheology	Pumping Quality Control Method Based on Online Concrete Pumpability Assessment	108-M45	Olga Río, Ángel Rodríguez, Samir Nabulsi, and Marina Álvarez	July-Aug. 2011	423
concrete rheology	Viability of Two New Mixture Design Methodologies for Self-Consolidating Concrete	108-M61	Pedro Silva, Jorge de Brito, and João Costa	Nov.-Dec. 2011	579
concrete specimens	Effect of Initial On-Site Curing on 28-Day Cylinder Strength	108-M54	José Calavera, Jaime Fernández-Gómez, Germán González, Jorge Ley, and Pedro López	Sept.-Oct. 2011	510
confining pressure	Equivalent Confinement in HPRCC Columns Measured by Triaxial Test	108-M18	Alessandro P. Fantilli, Hirozo Mihashi, Paolo Vallini, and Bernardino M. Chiaia	Mar.-Apr. 2011	159
constitutive relationships	Constitutive Relationships for Normal- and High-Strength Concrete at Elevated Temperatures	108-M37	Farhad Aslani and Morteza Bastami	July-Aug. 2011	355
continuous beam	Effect of Aggregate Size on Shear Behavior of Lightweight Concrete Continuous Slender Beams	108-M53	Keun-Hyeok Yang, Jae-II Sim, Byong-Jeong Choi, and Eun-Taik Lee	Sept.-Oct. 2011	501
convection	Distribution of Chloride Accumulation in Marine Tidal Zone along Altitude	108-M49	Yi Zhang and Wei-Liang Jin	Sept.-Oct. 2011	467

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
core test	Application of the Incremental Core-Drilling Method to Determine In-Situ Stresses in Concrete	108-M31	Christopher Trautner, Michael McGinnis, and Stephen Pessiki	May-June 2011	290
corrosion	Cracking and Healing of Engineered Cementitious Composites under Chloride Environment	108-M36	Mo Li and Victor C. Li	May-June 2011	333
corrosion	Effect of Electrochemical Treatment in Inhibiting Corrosion of Steel in Concrete	108-M51	Ki Yong Ann, Min-Sun Jung, Hyun Bo Shim, and Myung Chul Shin	Sept.-Oct. 2011	485
corrosion	Influence of Surface Crack Width on Bond Strength of Reinforced Concrete	108-M04	Denglei Tang, Thomas K. C. Molyneaux, David W. Law, and Rebecca Gravina	Jan.-Feb. 2011	29
corrosion	Long-Term Performance of Glass Fiber-Reinforced Polymer Reinforcement Embedded in Concrete	108-M64	David Trejo, Paolo Gardoni, and Jeong Joo Kim	Nov.-Dec. 2011	605
corrosion	Prediction of Equivalent Steady-State Chloride Diffusion Coefficients	108-M11	Pratanu Ghosh, Alex Hammond, and Paul J. Tikalsky	Jan.-Feb. 2011	88
cover	Influence of Surface Crack Width on Bond Strength of Reinforced Concrete	108-M04	Denglei Tang, Thomas K. C. Molyneaux, David W. Law, and Rebecca Gravina	Jan.-Feb. 2011	29
crack propagation	Failure Behavior of Concrete Cylinders under Different End Conditions	108-M10	M. Roddenberry, R. Kampmann, M. H. Ansley, N. Bouchard, and W. V. Ping	Jan.-Feb. 2011	79
crack self-healing	Behavior of Fire-Damaged Mortar under Variable Re-curing Conditions	108-M30	Michael Henry, Masamitsu Suzuki, and Yoshitaka Kato	May-June 2011	281
crack width	Cracking and Healing of Engineered Cementitious Composites under Chloride Environment	108-M36	Mo Li and Victor C. Li	May-June 2011	333
cracking	Cracking and Healing of Engineered Cementitious Composites under Chloride Environment	108-M36	Mo Li and Victor C. Li	May-June 2011	333

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
cracking	High-Early-Strength Engineered Cementitious Composites for Fast, Durable Concrete Repair—Material Properties	108-M01	Mo Li and Victor C. Li	Jan.-Feb. 2011	3
cracking	Lightweight Aggregate as Internal Curing Agent to Limit Concrete Shrinkage	108-M68	JoAnn Browning, David Darwin, Diane Reynolds, and Benjamin Pendergrass	Nov.-Dec. 2011	638
creep	Compressive Stress-Strain Relationships for North American Concrete under Elevated Temperatures	108-M29	Adam M. Knaack, Yahya C. Kurama, and David J. Kirkner	May-June 2011	270
creep	Creep of Prestressed Self-Consolidating Concrete	108-M50	Wu-Jian Long and Kamal Henri Khayat	Sept.-Oct. 2011	476
creep	Experimental Study on Creep and Durability of High-Early-Strength Self-Consolidating Concrete for Precast Elements	108-M15	Young Hoon Kim, David Trejo, Mary Beth D. Hueste, and Jeong Joo Kim	Mar.-Apr. 2011	128
curing	Lightweight Aggregate as Internal Curing Agent to Limit Concrete Shrinkage	108-M68	JoAnn Browning, David Darwin, Diane Reynolds, and Benjamin Pendergrass	Nov.-Dec. 2011	638
curing condition	Ground-Granulated Blast-Furnace Slag as Potential Filler in Polyester Grout: Compressive Strength Development	108-M14	Siong Kang Lim, Tung-Chai Ling, and Mohd Warid Hussin	Mar.-Apr. 2011	120
cylinders	Failure Behavior of Concrete Cylinders under Different End Conditions	108-M10	M. Roddenberry, R. Kampmann, M. H. Ansley, N. Bouchard, and W. V. Ping	Jan.-Feb. 2011	79
damage	Damage Behavior of Yarn Embedded in Concrete Using Acoustic Emission Analysis	108-M12	Bong-Gu Kang, Joachim Hannawald, and Wolfgang Brameshuber	Jan.-Feb. 2011	95
deflection	Fire Tests of Hybrid and Carbon Fiber-Reinforced Polymer Bar Reinforced Concrete Beams	108-M27	Muhammad Masood Rafi and Ali Nadjai	May-June 2011	252
deformed reinforcing bar	Influence of Surface Crack Width on Bond Strength of Reinforced Concrete	108-M04	Denglei Tang, Thomas K. C. Molyneaux, David W. Law, and Rebecca Gravina	Jan.-Feb. 2011	29

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
degree of hydration	Assessing Lightweight Aggregate Efficiency for Maximizing Internal Curing Performance	108-M41	Álvaro Paul and Mauricio Lopez	July-Aug. 2011	385
dehydrated cement paste	Activation of Fly Ash with Dehydrated Cement Paste	108-M23	Zhonghe Shui, Rui Yu, and Jun Dong	Mar.-Apr. 2011	204
deicing salts	Freezing-and-Thawing Durability of Pervious Concrete under Simulated Field Conditions	108-M21	Zhifu Yang	Mar.-Apr. 2011	187
derivative thermogravimetric analysis	Self-Accelerated Reactive Powder Concrete Using Partially Hydrated Cementitious Materials	108-M63	Ahmed M. Soliman and Moncef L. Nehdi	Nov.-Dec. 2011	596
deterioration	Long-Term Performance of Glass Fiber-Reinforced Polymer Reinforcement Embedded in Concrete	108-M64	David Trejo, Paolo Gardoni, and Jeong Joo Kim	Nov.-Dec. 2011	605
diffusion	Distribution of Chloride Accumulation in Marine Tidal Zone along Altitude	108-M49	Yi Zhang and Wei-Liang Jin	Sept.-Oct. 2011	467
diffusion coefficient	Measurement Device and Characteristics of Diffusion Coefficient of Carbon Dioxide in Concrete	108-M62	Sang Hwa Jung, Myung Kue Lee, and Byung Hwan Oh	Nov.-Dec. 2011	589
diffusivity	Experimental Study on Creep and Durability of High-Early-Strength Self-Consolidating Concrete for Precast Elements	108-M15	Young Hoon Kim, David Trejo, Mary Beth D. Hueste, and Jeong Joo Kim	Mar.-Apr. 2011	128
digital image correlation	In-Place Evaluation of Masonry Shear Behavior Using Digital Image Analysis	108-M44	Carlo Citto, Shan I. Wo, Kaspar J. Willam, and Michael P. Schuller	July-Aug. 2011	413
displacement	Application of the Incremental Core-Drilling Method to Determine In-Situ Stresses in Concrete	108-M31	Christopher Trautner, Michael McGinnis, and Stephen Pessiki	May-June 2011	290
drying shrinkage	Effectiveness of Mixing Time on Hardened Properties of Waterglass-Activated Slag Pastes and Mortars	108-M09	Marta Palacios and Francisca Puertas	Jan.-Feb. 2011	73

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
drying shrinkage	Lightweight Aggregate as Internal Curing Agent to Limit Concrete Shrinkage	108-M68	JoAnn Browning, David Darwin, Diane Reynolds, and Benjamin Pendergrass	Nov.-Dec. 2011	638
dry-wet cycling	Distribution of Chloride Accumulation in Marine Tidal Zone along Altitude	108-M49	Yi Zhang and Wei-Liang Jin	Sept.-Oct. 2011	467
ductility	Cracking and Healing of Engineered Cementitious Composites under Chloride Environment	108-M36	Mo Li and Victor C. Li	May-June 2011	333
ductility	Equivalent Confinement in HPRCC Columns Measured by Triaxial Test	108-M18	Alessandro P. Fantilli, Hirozo Mihashi, Paolo Vallini, and Bernardino M. Chiaia	Mar.-Apr. 2011	159
ductility	High-Early-Strength Engineered Cementitious Composites for Fast, Durable Concrete Repair—Material Properties	108-M01	Mo Li and Victor C. Li	Jan.-Feb. 2011	3
durability	Behavior of Fire-Damaged Mortar under Variable Re-curing Conditions	108-M30	Michael Henry, Masamitsu Suzuki, and Yoshitaka Kato	May-June 2011	281
durability	Cracking and Healing of Engineered Cementitious Composites under Chloride Environment	108-M36	Mo Li and Victor C. Li	May-June 2011	333
durability	Experimental Study on Creep and Durability of High-Early-Strength Self-Consolidating Concrete for Precast Elements	108-M15	Young Hoon Kim, David Trejo, Mary Beth D. Hueste, and Jeong Joo Kim	Mar.-Apr. 2011	128
durability	High-Early-Strength Engineered Cementitious Composites for Fast, Durable Concrete Repair—Material Properties	108-M01	Mo Li and Victor C. Li	Jan.-Feb. 2011	3
durability	Measurement Device and Characteristics of Diffusion Coefficient of Carbon Dioxide in Concrete	108-M62	Sang Hwa Jung, Myung Kue Lee, and Byung Hwan Oh	Nov.-Dec. 2011	589
durability	Mixture Proportion Development and Performance Evaluation of Pervious Concrete for Overlay Applications	108-M47	John T. Kevern, Vernon R. Schaefer, and Kejin Wang	July-Aug. 2011	439

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
durability	Performance of 100% Fly Ash Concrete with Recycled Glass Aggregate	108-M40	Michael Berry, Jerry Stephens, and Doug Cross	July-Aug. 2011	378
durability	Permeation Properties of Self-Consolidating Concretes with Mineral Admixtures	108-M17	Erhan Güneyisi, Mehmet Gesoglu, and Erdogan Özbay	Mar.-Apr. 2011	150
durability	Properties of Mortars with Natural Pozzolana and Limestone-Based Blended Cements	108-M52	Erhan Güneyisi, Mehmet Gesoglu, Turan Özturan, Kasim Mermerdas, and Erdogan Özbay	Sept.-Oct. 2011	493
durability	Strength and Durability of Concrete Made with Electric Steelmaking Slag	108-M22	Juan A. Polanco, Juan M. Manso, Jesús Setién, and Javier J. González	Mar.-Apr. 2011	196
early thermal cracking	Effects of Silica Fume on Heat Generation of Curing Concrete	108-M70	A. K. H. Kwan, J. J. Chen, W. W. S. Fung, and P. L. Ng	Nov.-Dec. 2011	655
early thermal cracking	Heat Generation of Curing Fly Ash Concrete at Different w/cm	108-M33	A. K. H. Kwan, W. W. S. Fung, J. J. Chen, and P. L. Ng	May-June 2011	307
efficiency	Prediction of Efficiency Factor of Ground-Granulated Blast-Furnace Slag of Concrete Using Artificial Neural Network	108-M07	Bakhta Boukhatem, Mohamed Ghrici, Said Kenai, and Arezki Tagnit-Hamou	Jan.-Feb. 2011	55
elastic modulus	Compressive Stress-Strain Relationships for North American Concrete under Elevated Temperatures	108-M29	Adam M. Knaack, Yahya C. Kurama, and David J. Kirkner	May-June 2011	270
elastic modulus	Constitutive Relationships for Normal- and High-Strength Concrete at Elevated Temperatures	108-M37	Farhad Aslani and Morteza Bastami	July-Aug. 2011	355
electric arc furnace slag	Design and Elaboration of Concrete Mixtures Using Steelmaking Slags	108-M72	Juan Manuel Manso, David Hernández, Maria Milagros Losáñez, and Javier Jesús González	Nov.-Dec. 2011	673
electrical properties	Properties of Mortars with Natural Pozzolana and Limestone-Based Blended Cements	108-M52	Erhan Güneyisi, Mehmet Gesoglu, Turan Özturan, Kasim Mermerdas, and Erdogan Özbay	Sept.-Oct. 2011	493

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
electrochemical tests	Linear Polarization Resistance Tests on Corrosion Protection Degree of Post-Tensioning Grouts	108-M38	Alexandre R. Pacheco, Andrea J. Schokker, Jeffery S. Volz, and H. R. (Trey) Hamilton III	July-Aug. 2011	365
electrochemical treatment	Effect of Electrochemical Treatment in Inhibiting Corrosion of Steel in Concrete	108-M51	Ki Yong Ann, Min-Sun Jung, Hyun Bo Shim, and Myung Chul Shin	Sept.-Oct. 2011	485
end conditions	Failure Behavior of Concrete Cylinders under Different End Conditions	108-M10	M. Roddenberry, R. Kampmann, M. H. Ansley, N. Bouchard, and W. V. Ping	Jan.-Feb. 2011	79
end-hooked fiber	Diverse Embedment Model for Steel Fiber-Reinforced Concrete in Tension: Model Development	108-M55	Seong-Cheol Lee, Jae-Yeol Cho, and Frank J. Vecchio	Sept.-Oct. 2011	516
end-hooked fiber	Diverse Embedment Model for Steel Fiber-Reinforced Concrete in Tension: Model Verification	108-M56	Seong-Cheol Lee, Jae-Yeol Cho, and Frank J. Vecchio	Sept.-Oct. 2011	526
energy index	Signal-Based Acoustic Emission Monitoring on Mortar Using Cement-Based Piezoelectric Sensors	108-M20	Youyuan Lu, Zongjin Li, and Lei Qin	Mar.-Apr. 2011	178
engineered cementitious composites	Cracking and Healing of Engineered Cementitious Composites under Chloride Environment	108-M36	Mo Li and Victor C. Li	May-June 2011	333
expansive components	Strength and Durability of Concrete Made with Electric Steelmaking Slag	108-M22	Juan A. Polanco, Juan M. Manso, Jesús Setién, and Javier J. González	Mar.-Apr. 2011	196
fabric	Impact Behavior of Textile and Hybrid Cement-Based Composites	108-M25	Efrat Haim and Alva Peled	May-June 2011	235
failure	Failure Behavior of Concrete Cylinders under Different End Conditions	108-M10	M. Roddenberry, R. Kampmann, M. H. Ansley, N. Bouchard, and W. V. Ping	Jan.-Feb. 2011	79
failure	Fire Tests of Hybrid and Carbon Fiber-Reinforced Polymer Bar Reinforced Concrete Beams	108-M27	Muhammad Masood Rafi and Ali Nadjai	May-June 2011	252

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
failure criterion	Validation of Performance-Dependent Failure Criterion for Concretes	108-M28	Paula Folino and Guillermo Etse	May-June 2011	261
fiber	Impact Behavior of Textile and Hybrid Cement-Based Composites	108-M25	Efrat Haim and Alva Peled	May-June 2011	235
fiber orientation factor	Diverse Embedment Model for Steel Fiber-Reinforced Concrete in Tension: Model Development	108-M55	Seong-Cheol Lee, Jae-Yeol Cho, and Frank J. Vecchio	Sept.-Oct. 2011	516
fiber orientation factor	Diverse Embedment Model for Steel Fiber-Reinforced Concrete in Tension: Model Verification	108-M56	Seong-Cheol Lee, Jae-Yeol Cho, and Frank J. Vecchio	Sept.-Oct. 2011	526
fiber reinforcement	Effect of High Temperature on Tensile Strength of Different Types of High-Strength Concrete	108-M42	W. Khaliq and V. K. R. Kodur	July-Aug. 2011	394
fiber reinforcement	Freezing-and-Thawing Durability of Pervious Concrete under Simulated Field Conditions	108-M21	Zhifu Yang	Mar.-Apr. 2011	187
fiber-reinforced cementitious concrete	Equivalent Confinement in HPRCC Columns Measured by Triaxial Test	108-M18	Alessandro P. Fantilli, Hirozo Mihashi, Paolo Vallini, and Bernardino M. Chiaia	Mar.-Apr. 2011	159
fiber-reinforced concrete	Tests on Concrete Reinforced with Hybrid or Monolithic Steel and Polyvinyl Alcohol Fibers	108-M71	Keun-Hyeok Yang	Nov.-Dec. 2011	664
fiber-reinforced polymer	Fire Tests of Hybrid and Carbon Fiber-Reinforced Polymer Bar Reinforced Concrete Beams	108-M27	Muhammad Masood Rafi and Ali Nadjai	May-June 2011	252
fiber-reinforcing index	Tests on Concrete Reinforced with Hybrid or Monolithic Steel and Polyvinyl Alcohol Fibers	108-M71	Keun-Hyeok Yang	Nov.-Dec. 2011	664
fire	Constitutive Relationships for Normal- and High-Strength Concrete at Elevated Temperatures	108-M37	Farhad Aslani and Morteza Bastami	July-Aug. 2011	355

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
fire	Fire Tests of Hybrid and Carbon Fiber-Reinforced Polymer Bar Reinforced Concrete Beams	108-M27	Muhammad Masood Rafi and Ali Nadjai	May-June 2011	252
fire damage	Behavior of Fire-Damaged Mortar under Variable Re-curing Conditions	108-M30	Michael Henry, Masamitsu Suzuki, and Yoshitaka Kato	May-June 2011	281
fire repair	Behavior of Fire-Damaged Mortar under Variable Re-curing Conditions	108-M30	Michael Henry, Masamitsu Suzuki, and Yoshitaka Kato	May-June 2011	281
fire resistance	Effect of High Temperature on Tensile Strength of Different Types of High-Strength Concrete	108-M42	W. Khaliq and V. K. R. Kodur	July-Aug. 2011	394
flexural	High-Early-Strength Engineered Cementitious Composites for Fast, Durable Concrete Repair—Material Properties	108-M01	Mo Li and Victor C. Li	Jan.-Feb. 2011	3
flow table	Ultra-High Performance Concrete with Compressive Strength Exceeding 150 MPa (22 ksi): A Simpler Way	108-M06	Kay Wille, Antoine E. Naaman, and Gustavo J. Parra-Montesinos	Jan.-Feb. 2011	46
fly ash	Activation of Fly Ash with Dehydrated Cement Paste	108-M23	Zhonghe Shui, Rui Yu, and Jun Dong	Mar.-Apr. 2011	204
fly ash	Effect of High Temperature on Tensile Strength of Different Types of High-Strength Concrete	108-M42	W. Khaliq and V. K. R. Kodur	July-Aug. 2011	394
fly ash	Effects of Silica Fume on Heat Generation of Curing Concrete	108-M70	A. K. H. Kwan, J. J. Chen, W. W. S. Fung, and P. L. Ng	Nov.-Dec. 2011	655
fly ash	Heat Generation of Curing Fly Ash Concrete at Different <i>w/cm</i>	108-M33	A. K. H. Kwan, W. W. S. Fung, J. J. Chen, and P. L. Ng	May-June 2011	307
fly ash	Mechanical Properties of Fly-Ash-Based Geopolymer Concrete	108-M32	E. Ivan Diaz-Loya, Erez N. Allouche, and Saiprasad Vaidya	May-June 2011	300

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
fly ash	Neural Network Modeling of Rheological Parameters of Grouts Containing Viscosity-Modifying Agent	108-M34	Mohammed Sonebi and Savko Malinov	May-June 2011	316
fly ash	Performance of 100% Fly Ash Concrete with Recycled Glass Aggregate	108-M40	Michael Berry, Jerry Stephens, and Doug Cross	July-Aug. 2011	378
fly ash	Sulfate Resistance of Mortar Mixtures of High-Calcium Fly Ashes and Other Pozzolans	108-M69	Rajaram Dhole, Michael D. A. Thomas, Kevin J. Folliard, and Thanu Drimalas	Nov.-Dec. 2011	645
formwork	Simple Analytical Model for Formwork Design of Self-Consolidating Concrete	108-M05	Jae Hong Kim, Mark W. Beacraft, Seung Hee Kwon, and Surendra P. Shah	Jan.-Feb. 2011	38
fracture	Failure Behavior of Concrete Cylinders under Different End Conditions	108-M10	M. Roddenberry, R. Kampmann, M. H. Ansley, N. Bouchard, and W. V. Ping	Jan.-Feb. 2011	79
fracture	Signal-Based Acoustic Emission Monitoring on Mortar Using Cement-Based Piezoelectric Sensors	108-M20	Youyuan Lu, Zongjin Li, and Lei Qin	Mar.-Apr. 2011	178
fracture toughness	Equivalent Confinement in HPFRCC Columns Measured by Triaxial Test	108-M18	Alessandro P. Fantilli, Hirozo Mihashi, Paolo Vallini, and Bernardino M. Chiaia	Mar.-Apr. 2011	159
freezing and thawing	Experimental Study on Creep and Durability of High-Early-Strength Self-Consolidating Concrete for Precast Elements	108-M15	Young Hoon Kim, David Trejo, Mary Beth D. Hueste, and Jeong Joo Kim	Mar.-Apr. 2011	128
freezing and thawing	Mixture Proportion Development and Performance Evaluation of Pervious Concrete for Overlay Applications	108-M47	John T. Kevern, Vernon R. Schaefer, and Kejin Wang	July-Aug. 2011	439
fresh properties	Influence of Hauling Time on Fresh Properties of Self-Consolidating Concrete	108-M26	Hamidou Diawara and Nader Ghafoori	May-June 2011	244
geopolymer	Mechanical Properties of Fly-Ash-Based Geopolymer Concrete	108-M32	E. Ivan Diaz-Loya, Erez N. Allouche, and Saiprasad Vaidya	May-June 2011	300

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
geopolymer cement	Engineering Properties of Alkali-Activated Natural Pozzolan Concrete	108-M08	Dali Bondar, Cyril J. Lynsdale, Neil B. Milestone, Nemat Hassani, and Ali Akbar Ramezaniapour	Jan.-Feb. 2011	64
geopolymer concrete	Engineering Properties of Alkali-Activated Natural Pozzolan Concrete	108-M08	Dali Bondar, Cyril J. Lynsdale, Neil B. Milestone, Nemat Hassani, and Ali Akbar Ramezaniapour	Jan.-Feb. 2011	64
geopolymer concrete	Rheology of Fly-Ash-Based Geopolymer Concrete	108-M57	Aminul Islam Laskar and Rajan Bhattacharjee	Sept.-Oct. 2011	536
glass	Performance of 100% Fly Ash Concrete with Recycled Glass Aggregate	108-M40	Michael Berry, Jerry Stephens, and Doug Cross	July-Aug. 2011	378
glass fiber-reinforced polymer	Long-Term Performance of Glass Fiber-Reinforced Polymer Reinforcement Embedded in Concrete	108-M64	David Trejo, Paolo Gardoni, and Jeong Joo Kim	Nov.-Dec. 2011	605
grinding aids	Use of Water Reducers to Improve Grindability and Performance of Portland Cement Clinker	108-M66	Joseph J. Assaad and Salim E. Asseily	Nov.-Dec. 2011	619
ground-granulated blast-furnace slag	Ground-Granulated Blast-Furnace Slag as Potential Filler in Polyester Grout: Compressive Strength Development	108-M14	Siong Kang Lim, Tung-Chai Ling, and Mohd Warid Hussin	Mar.-Apr. 2011	120
ground-granulated blast-furnace slag	Prediction of Efficiency Factor of Ground-Granulated Blast-Furnace Slag of Concrete Using Artificial Neural Network	108-M07	Bakhta Boukhatem, Mohamed Ghrici, Said Kenai, and Arezki Tagnit-Hamou	Jan.-Feb. 2011	55
ground-granulated blast-furnace slag	Unified Shrinkage Model for Concrete from Autogenous Shrinkage Test on Paste with and without Ground-Granulated Blast-Furnace Slag	108-M02	Ya Wei, Will Hansen, Joseph J. Biernacki, and Erik Schlangen	Jan.-Feb. 2011	13
hauling time	Influence of Hauling Time on Fresh Properties of Self-Consolidating Concrete	108-M26	Hamidou Diawara and Nader Ghafoori	May-June 2011	244
heat generation	Effects of Silica Fume on Heat Generation of Curing Concrete	108-M70	A. K. H. Kwan, J. J. Chen, W. W. S. Fung, and P. L. Ng	Nov.-Dec. 2011	655

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
heat generation	Heat Generation of Curing Fly Ash Concrete at Different <i>w/cm</i>	108-M33	A. K. H. Kwan, W. W. S. Fung, J. J. Chen, and P. L. Ng	May-June 2011	307
heat of hydration	New Model for Estimating Apparent Activation Energy of Cementitious Systems	108-M59	K. A. Riding, J. L. Poole, K. J. Folliard, M. C. G. Juenger, and A. K. Schindler	Sept.-Oct. 2011	550
high-early-strength engineered cementitious composites	High-Early-Strength Engineered Cementitious Composites for Fast, Durable Concrete Repair—Material Properties	108-M01	Mo Li and Victor C. Li	Jan.-Feb. 2011	3
high-energy ball mill	High-Energy Ball Mill Parameters Used to Obtain Ultra-Fine Portland Cement at Laboratory Level	108-M39	Juan Carlos Arteaga-Arcos, Obed Arnoldo Chimal-Valencia, David Joaquín Delgado Hernández, Hernani Tiago Yee Madeira, and Sebastián Díaz de la Torre	July-Aug. 2011	371
high-performance concrete	Assessing Lightweight Aggregate Efficiency for Maximizing Internal Curing Performance	108-M41	Álvaro Paul and Mauricio Lopez	July-Aug. 2011	385
high-performance concrete	Equivalent Confinement in HPFRCC Columns Measured by Triaxial Test	108-M18	Alessandro P. Fantilli, Hirozo Mihashi, Paolo Vallini, and Bernardino M. Chiaia	Mar.-Apr. 2011	159
high-performance fiber-reinforced cementitious composite	Space-Averaged Constitutive Model for HPFRCCs with Multi-Directional Cracking	108-M16	Kohei Nagai, Benny Suryanto, and Koichi Maekawa	Mar.-Apr. 2011	139
high-range water-reducing admixture	Neural Network Modeling of Rheological Parameters of Grouts Containing Viscosity-Modifying Agent	108-M34	Mohammed Sonebi and Savko Malinov	May-June 2011	316
high-strength concrete	Constitutive Relationships for Normal- and High-Strength Concrete at Elevated Temperatures	108-M37	Farhad Aslani and Morteza Bastami	July-Aug. 2011	355
high-strength concrete	Validation of Performance-Dependent Failure Criterion for Concretes	108-M28	Paula Folino and Guillermo Etse	May-June 2011	261
humidity	Robustness of Self-Consolidating Concrete Incorporating Different Viscosity-Enhancing Admixtures	108-M46	Siwar Naji, Soo-Duck Hwang, and Kamal H. Khayat	July-Aug. 2011	432

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
hybrid bars	Fire Tests of Hybrid and Carbon Fiber-Reinforced Polymer Bar Reinforced Concrete Beams	108-M27	Muhammad Masood Rafi and Ali Nadjai	May-June 2011	252
hybridization	Tests on Concrete Reinforced with Hybrid or Monolithic Steel and Polyvinyl Alcohol Fibers	108-M71	Keun-Hyeok Yang	Nov.-Dec. 2011	664
hydration products	Unified Shrinkage Model for Concrete from Autogenous Shrinkage Test on Paste with and without Ground-Granulated Blast-Furnace Slag	108-M02	Ya Wei, Will Hansen, Joseph J. Biernacki, and Erik Schlangen	Jan.-Feb. 2011	13
hygrothermal analysis	Estimation of Carbonation Depth Based on Hygrothermal Calculations	108-M24	Christina Giarma	Mar.-Apr. 2011	209
hysteresis	Distribution of Chloride Accumulation in Marine Tidal Zone along Altitude	108-M49	Yi Zhang and Wei-Liang Jin	Sept.-Oct. 2011	467
impact	Impact Behavior of Textile and Hybrid Cement-Based Composites	108-M25	Efrat Haim and Alva Peled	May-June 2011	235
impact test	Impact Behavior of Sisal Fiber Cement Composites under Flexural Load	108-M19	Flávio de Andrade Silva, Deju Zhu, Barzin Mobasher, and Romildo Dias Toledo Filho	Mar.-Apr. 2011	168
initial curing	Effect of Initial On-Site Curing on 28-Day Cylinder Strength	108-M54	José Calavera, Jaime Fernández-Gómez, Germán González, Jorge Ley, and Pedro López	Sept.-Oct. 2011	510
in-place shear testing	In-Place Evaluation of Masonry Shear Behavior Using Digital Image Analysis	108-M44	Carlo Citto, Shan I. Wo, Kaspar J. Willam, and Michael P. Schuller	July-Aug. 2011	413
interface	Factors Affecting Bond between New and Old Concrete	108-M48	Pedro Miguel Duarte Santos and Eduardo Nuno Brito Santos Júlio	July-Aug. 2011	449
internal curing	Assessing Lightweight Aggregate Efficiency for Maximizing Internal Curing Performance	108-M41	Álvaro Paul and Mauricio Lopez	July-Aug. 2011	385

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
internal curing	Evaluation of Autogenous Deformation of Concrete at Early Ages	108-M03	Sam Slatnick, Kyle A. Riding, Kevin J. Folliard, Maria C. G. Juenger, and Anton K. Schindler	Jan.-Feb. 2011	21
joule effect	Prediction of Equivalent Steady-State Chloride Diffusion Coefficients	108-M11	Pratanu Ghosh, Alex Hammond, and Paul J. Tikalsky	Jan.-Feb. 2011	88
ladle furnace slag	Design and Elaboration of Concrete Mixtures Using Steelmaking Slags	108-M72	Juan Manuel Manso, David Hernández, Maria Milagros Losáñez, and Javier Jesús González	Nov.-Dec. 2011	673
lateral strain	Failure Behavior of Concrete Cylinders under Different End Conditions	108-M10	M. Roddenberry, R. Kampmann, M. H. Ansley, N. Bouchard, and W. V. Ping	Jan.-Feb. 2011	79
lightweight aggregate	Evaluation of Autogenous Deformation of Concrete at Early Ages	108-M03	Sam Slatnick, Kyle A. Riding, Kevin J. Folliard, Maria C. G. Juenger, and Anton K. Schindler	Jan.-Feb. 2011	21
lightweight aggregate	Lightweight Aggregate as Internal Curing Agent to Limit Concrete Shrinkage	108-M68	JoAnn Browning, David Darwin, Diane Reynolds, and Benjamin Pendergrass	Nov.-Dec. 2011	638
lightweight aggregates	Assessing Lightweight Aggregate Efficiency for Maximizing Internal Curing Performance	108-M41	Álvaro Paul and Mauricio Lopez	July-Aug. 2011	385
lightweight concrete	Effect of Aggregate Size on Shear Behavior of Lightweight Concrete Continuous Slender Beams	108-M53	Keun-Hyeok Yang, Jae-II Sim, Byong-Jeong Choi, and Eun-Taik Lee	Sept.-Oct. 2011	501
linear polarization resistance	Linear Polarization Resistance Tests on Corrosion Protection Degree of Post-Tensioning Grouts	108-M38	Alexandre R. Pacheco, Andrea J. Schokker, Jeffery S. Volz, and H. R. (Trey) Hamilton III	July-Aug. 2011	365
load-bearing behavior	Damage Behavior of Yarn Embedded in Concrete Using Acoustic Emission Analysis	108-M12	Bong-Gu Kang, Joachim Hannawald, and Wolfgang Brameshuber	Jan.-Feb. 2011	95
masonry	In-Place Evaluation of Masonry Shear Behavior Using Digital Image Analysis	108-M44	Carlo Citto, Shan I. Wo, Kaspar J. Willam, and Michael P. Schuller	July-Aug. 2011	413

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
mechanical characterization	Mechanical Properties of Fly-Ash-Based Geopolymer Concrete	108-M32	E. Ivan Diaz-Loya, Erez N. Allouche, and Saiprasad Vaidya	May-June 2011	300
mechanical properties	Effectiveness of Mixing Time on Hardened Properties of Waterglass-Activated Slag Pastes and Mortars	108-M09	Marta Palacios and Francisca Puertas	Jan.-Feb. 2011	73
mechanical properties	Macro- and Micro-Characterization of Mortars Produced with Carbon Nanotubes	108-M35	Valquíria S. Melo, José M. F. Calixto, Luiz O. Ladeira, and Adriano P. Silva	May-June 2011	327
mechanical properties	Performance of 100% Fly Ash Concrete with Recycled Glass Aggregate	108-M40	Michael Berry, Jerry Stephens, and Doug Cross	July-Aug. 2011	378
mechanic-electrical response	Cement-Based Piezoelectric Ceramic Composite and Its Sensor Applications in Civil Engineering	108-M58	Biqin Dong, Feng Xing, and Zongjin Li	Sept.-Oct. 2011	543
member size	Diverse Embedment Model for Steel Fiber-Reinforced Concrete in Tension: Model Development	108-M55	Seong-Cheol Lee, Jae-Yeol Cho, and Frank J. Vecchio	Sept.-Oct. 2011	516
member size	Diverse Embedment Model for Steel Fiber-Reinforced Concrete in Tension: Model Verification	108-M56	Seong-Cheol Lee, Jae-Yeol Cho, and Frank J. Vecchio	Sept.-Oct. 2011	526
microstructure	Assessing Lightweight Aggregate Efficiency for Maximizing Internal Curing Performance	108-M41	Álvaro Paul and Mauricio Lopez	July-Aug. 2011	385
microstructure	Effectiveness of Mixing Time on Hardened Properties of Waterglass-Activated Slag Pastes and Mortars	108-M09	Marta Palacios and Francisca Puertas	Jan.-Feb. 2011	73
microstructure	Macro- and Micro-Characterization of Mortars Produced with Carbon Nanotubes	108-M35	Valquíria S. Melo, José M. F. Calixto, Luiz O. Ladeira, and Adriano P. Silva	May-June 2011	327
migration rate	Prediction of Equivalent Steady-State Chloride Diffusion Coefficients	108-M11	Pratanu Ghosh, Alex Hammond, and Paul J. Tikalsky	Jan.-Feb. 2011	88

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
mineral admixture	Permeation Properties of Self-Consolidating Concretes with Mineral Admixtures	108-M17	Erhan Güneyisi, Mehmet Gesoglu, and Erdogan Özbay	Mar.-Apr. 2011	150
mixture	Prediction of Efficiency Factor of Ground-Granulated Blast-Furnace Slag of Concrete Using Artificial Neural Network	108-M07	Bakhta Boukhatem, Mohamed Ghrici, Said Kenai, and Arezki Tagnit-Hamou	Jan.-Feb. 2011	55
mixture design methods	Viability of Two New Mixture Design Methodologies for Self-Consolidating Concrete	108-M61	Pedro Silva, Jorge de Brito, and João Costa	Nov.-Dec. 2011	579
model	Another Look at the Relationship between Strength and Composition of Concrete	108-M13	Sándor Popovics	Mar.-Apr. 2011	115
model	Long-Term Performance of Glass Fiber-Reinforced Polymer Reinforcement Embedded in Concrete	108-M64	David Trejo, Paolo Gardoni, and Jeong Joo Kim	Nov.-Dec. 2011	605
model selection	Predicting Concrete Compressive Strength Using Ultrasonic Pulse Velocity and Rebound Number	108-M43	Qindan Huang, Paolo Gardoni, and Stefan Hurlebaus	July-Aug. 2011	403
modeling	Estimation of Carbonation Depth Based on Hygrothermal Calculations	108-M24	Christina Giarma	Mar.-Apr. 2011	209
modification factor	Effect of Aggregate Size on Shear Behavior of Lightweight Concrete Continuous Slender Beams	108-M53	Keun-Hyeok Yang, Jae-II Sim, Byong-Jeong Choi, and Eun-Taik Lee	Sept.-Oct. 2011	501
modulus	Another Look at the Relationship between Strength and Composition of Concrete	108-M13	Sándor Popovics	Mar.-Apr. 2011	115
mortar	Macro- and Micro-Characterization of Mortars Produced with Carbon Nanotubes	108-M35	Valquíria S. Melo, José M. F. Calixto, Luiz O. Ladeira, and Adriano P. Silva	May-June 2011	327
mortar	Properties of Mortars with Natural Pozzolana and Limestone-Based Blended Cements	108-M52	Erhan Güneyisi, Mehmet Gesoglu, Turan Özturan, Kasim Mermerdas, and Erdogan Özbay	Sept.-Oct. 2011	493

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
mortar	Signal-Based Acoustic Emission Monitoring on Mortar Using Cement-Based Piezoelectric Sensors	108-M20	Youyuan Lu, Zongjin Li, and Lei Qin	Mar.-Apr. 2011	178
multi-directional cracking	Space-Averaged Constitutive Model for HPRCCs with Multi-Directional Cracking	108-M16	Kohei Nagai, Benny Suryanto, and Koichi Maekawa	Mar.-Apr. 2011	139
natural pozzolan	Engineering Properties of Alkali-Activated Natural Pozzolan Concrete	108-M08	Dali Bondar, Cyril J. Lynsdale, Neil B. Milestone, Nemat Hassani, and Ali Akbar Ramezaniapour	Jan.-Feb. 2011	64
neural network	Neural Network Modeling of Rheological Parameters of Grouts Containing Viscosity-Modifying Agent	108-M34	Mohammed Sonebi and Savko Malinov	May-June 2011	316
nondestructive	Application of the Incremental Core-Drilling Method to Determine In-Situ Stresses in Concrete	108-M31	Christopher Trautner, Michael McGinnis, and Stephen Pessiki	May-June 2011	290
nondestructive test	Evaluating Surface-Breaking Cracks in Concrete Using Air-Coupled Sensors	108-M60	Seong-Hoon Kee, Eulalio Fernández-Gómez, and Jinying Zhu	Sept.-Oct. 2011	558
nondestructive testing	Predicting Concrete Compressive Strength Using Ultrasonic Pulse Velocity and Rebound Number	108-M43	Qindan Huang, Paolo Gardoni, and Stefan Hurlbaeus	July-Aug. 2011	403
nondestructive testing	Pumping Quality Control Method Based on Online Concrete Pumpability Assessment	108-M45	Olga Río, Ángel Rodríguez, Samir Nabulsi, and Marina Álvarez	July-Aug. 2011	423
normal-strength concrete	Constitutive Relationships for Normal- and High-Strength Concrete at Elevated Temperatures	108-M37	Farhad Aslani and Morteza Bastami	July-Aug. 2011	355
normal-strength concrete	Validation of Performance-Dependent Failure Criterion for Concretes	108-M28	Paula Folino and Guillermo Etse	May-June 2011	261
online sensing technology	Pumping Quality Control Method Based on Online Concrete Pumpability Assessment	108-M45	Olga Río, Ángel Rodríguez, Samir Nabulsi, and Marina Álvarez	July-Aug. 2011	423

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
performance parameter	Validation of Performance-Dependent Failure Criterion for Concretes	108-M28	Paula Folino and Guillermo Etse	May-June 2011	261
periclase	Strength and Durability of Concrete Made with Electric Steelmaking Slag	108-M22	Juan A. Polanco, Juan M. Manso, Jesús Setién, and Javier J. González	Mar.-Apr. 2011	196
permeability	Experimental Study on Creep and Durability of High-Early-Strength Self-Consolidating Concrete for Precast Elements	108-M15	Young Hoon Kim, David Trejo, Mary Beth D. Hueste, and Jeong Joo Kim	Mar.-Apr. 2011	128
permeability	Permeation Properties of Self-Consolidating Concretes with Mineral Admixtures	108-M17	Erhan Güneyisi, Mehmet Gesoglu, and Erdogan Özbay	Mar.-Apr. 2011	150
pervious concrete	Freezing-and-Thawing Durability of Pervious Concrete under Simulated Field Conditions	108-M21	Zhifu Yang	Mar.-Apr. 2011	187
pervious concrete	Mixture Proportion Development and Performance Evaluation of Pervious Concrete for Overlay Applications	108-M47	John T. Kevern, Vernon R. Schaefer, and Kejin Wang	July-Aug. 2011	439
piezoelectric	Cement-Based Piezoelectric Ceramic Composite and Its Sensor Applications in Civil Engineering	108-M58	Biqin Dong, Feng Xing, and Zongjin Li	Sept.-Oct. 2011	543
placement	Simple Analytical Model for Formwork Design of Self-Consolidating Concrete	108-M05	Jae Hong Kim, Mark W. Beacraft, Seung Hee Kwon, and Surendra P. Shah	Jan.-Feb. 2011	38
plastic viscosity	Rheology of Fly-Ash-Based Geopolymer Concrete	108-M57	Aminul Islam Laskar and Rajan Bhattacharjee	Sept.-Oct. 2011	536
polycarboxylate	Robustness of Self-Consolidating Concrete Incorporating Different Viscosity-Enhancing Admixtures	108-M46	Siwar Naji, Soo-Duck Hwang, and Kamal H. Khayat	July-Aug. 2011	432
polyester	Ground-Granulated Blast-Furnace Slag as Potential Filler in Polyester Grout: Compressive Strength Development	108-M14	Siong Kang Lim, Tung-Chai Ling, and Mohd Warid Hussin	Mar.-Apr. 2011	120

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
polynaphthalene	Robustness of Self-Consolidating Concrete Incorporating Different Viscosity-Enhancing Admixtures	108-M46	Siwar Naji, Soo-Duck Hwang, and Kamal H. Khayat	July-Aug. 2011	432
polysaccharide	Robustness of Self-Consolidating Concrete Incorporating Different Viscosity-Enhancing Admixtures	108-M46	Siwar Naji, Soo-Duck Hwang, and Kamal H. Khayat	July-Aug. 2011	432
polyvinyl alcohol engineered cement composite	Space-Averaged Constitutive Model for HPRCCs with Multi-Directional Cracking	108-M16	Kohei Nagai, Benny Suryanto, and Koichi Maekawa	Mar.-Apr. 2011	139
polyvinyl alcohol fiber	Tests on Concrete Reinforced with Hybrid or Monolithic Steel and Polyvinyl Alcohol Fibers	108-M71	Keun-Hyeok Yang	Nov.-Dec. 2011	664
portable vane test	Portable Vane Test to Assess Structural Buildup at Rest of Self-Consolidating Concrete	108-M67	Ahmed F. Omran, Siwar Naji, and Kamal H. Khayat	Nov.-Dec. 2011	628
post-tensioning grouts	Linear Polarization Resistance Tests on Corrosion Protection Degree of Post-Tensioning Grouts	108-M38	Alexandre R. Pacheco, Andrea J. Schokker, Jeffery S. Volz, and H. R. (Trey) Hamilton III	July-Aug. 2011	365
precast	Experimental Study on Creep and Durability of High-Early-Strength Self-Consolidating Concrete for Precast Elements	108-M15	Young Hoon Kim, David Trejo, Mary Beth D. Hueste, and Jeong Joo Kim	Mar.-Apr. 2011	128
prediction model	Experimental Study on Creep and Durability of High-Early-Strength Self-Consolidating Concrete for Precast Elements	108-M15	Young Hoon Kim, David Trejo, Mary Beth D. Hueste, and Jeong Joo Kim	Mar.-Apr. 2011	128
prediction models	Creep of Prestressed Self-Consolidating Concrete	108-M50	Wu-Jian Long and Kamal Henri Khayat	Sept.-Oct. 2011	476
prestressed concrete	Creep of Prestressed Self-Consolidating Concrete	108-M50	Wu-Jian Long and Kamal Henri Khayat	Sept.-Oct. 2011	476
prestressed concrete	Linear Polarization Resistance Tests on Corrosion Protection Degree of Post-Tensioning Grouts	108-M38	Alexandre R. Pacheco, Andrea J. Schokker, Jeffery S. Volz, and H. R. (Trey) Hamilton III	July-Aug. 2011	365

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
prestressed members	Experimental Study on Creep and Durability of High-Early-Strength Self-Consolidating Concrete for Precast Elements	108-M15	Young Hoon Kim, David Trejo, Mary Beth D. Hueste, and Jeong Joo Kim	Mar.-Apr. 2011	128
pulse velocity	Predicting Concrete Compressive Strength Using Ultrasonic Pulse Velocity and Rebound Number	108-M43	Qindan Huang, Paolo Gardoni, and Stefan Hurlebaus	July-Aug. 2011	403
quality control	Pumping Quality Control Method Based on Online Concrete Pumpability Assessment	108-M45	Olga Río, Ángel Rodríguez, Samir Nabulsi, and Marina Álvarez	July-Aug. 2011	423
rapid setting	Design and Elaboration of Concrete Mixtures Using Steelmaking Slags	108-M72	Juan Manuel Manso, David Hernández, Maria Milagros Losáñez, and Javier Jesús González	Nov.-Dec. 2011	673
reactive powder concrete	Self-Accelerated Reactive Powder Concrete Using Partially Hydrated Cementitious Materials	108-M63	Ahmed M. Soliman and Moncef L. Nehdi	Nov.-Dec. 2011	596
reactive powder concrete (RPC)	Ultra-High Performance Concrete with Compressive Strength Exceeding 150 MPa (22 ksi): A Simpler Way	108-M06	Kay Wille, Antoine E. Naaman, and Gustavo J. Parra-Montesinos	Jan.-Feb. 2011	46
rebound number	Predicting Concrete Compressive Strength Using Ultrasonic Pulse Velocity and Rebound Number	108-M43	Qindan Huang, Paolo Gardoni, and Stefan Hurlebaus	July-Aug. 2011	403
re-curing	Behavior of Fire-Damaged Mortar under Variable Re-curing Conditions	108-M30	Michael Henry, Masamitsu Suzuki, and Yoshitaka Kato	May-June 2011	281
recycling	Design and Elaboration of Concrete Mixtures Using Steelmaking Slags	108-M72	Juan Manuel Manso, David Hernández, Maria Milagros Losáñez, and Javier Jesús González	Nov.-Dec. 2011	673
recycling	Performance of 100% Fly Ash Concrete with Recycled Glass Aggregate	108-M40	Michael Berry, Jerry Stephens, and Doug Cross	July-Aug. 2011	378
rehydration	Behavior of Fire-Damaged Mortar under Variable Re-curing Conditions	108-M30	Michael Henry, Masamitsu Suzuki, and Yoshitaka Kato	May-June 2011	281

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
reinforced concrete	Cracking and Healing of Engineered Cementitious Composites under Chloride Environment	108-M36	Mo Li and Victor C. Li	May-June 2011	333
reinforcement	Long-Term Performance of Glass Fiber-Reinforced Polymer Reinforcement Embedded in Concrete	108-M64	David Trejo, Paolo Gardoni, and Jeong Joo Kim	Nov.-Dec. 2011	605
relative humidity	Measurement Device and Characteristics of Diffusion Coefficient of Carbon Dioxide in Concrete	108-M62	Sang Hwa Jung, Myung Kue Lee, and Byung Hwan Oh	Nov.-Dec. 2011	589
remediation	Influence of Hauling Time on Fresh Properties of Self-Consolidating Concrete	108-M26	Hamidou Diawara and Nader Ghafoori	May-June 2011	244
rheology	Rheology of Fly-Ash-Based Geopolymer Concrete	108-M57	Aminul Islam Laskar and Rajan Bhattacharjee	Sept.-Oct. 2011	536
Rietveld refinement method	High-Energy Ball Mill Parameters Used to Obtain Ultra-Fine Portland Cement at Laboratory Level	108-M39	Juan Carlos Arteaga-Arcos, Obed Arnoldo Chimal-Valencia, David Joaquín Delgado Hernández, Hernani Tiago Yee Madeira, and Sebastián Díaz de la Torre	July-Aug. 2011	371
roughness	Factors Affecting Bond between New and Old Concrete	108-M48	Pedro Miguel Duarte Santos and Eduardo Nuno Brito Santos Júlio	July-Aug. 2011	449
saturated surface dry	Robustness of Self-Consolidating Concrete Incorporating Different Viscosity-Enhancing Admixtures	108-M46	Siwar Naji, Soo-Duck Hwang, and Kamal H. Khayat	July-Aug. 2011	432
self-consolidating concrete	Creep of Prestressed Self-Consolidating Concrete	108-M50	Wu-Jian Long and Kamal Henri Khayat	Sept.-Oct. 2011	476
self-consolidating concrete	Effect of High Temperature on Tensile Strength of Different Types of High-Strength Concrete	108-M42	W. Khaliq and V. K. R. Kodur	July-Aug. 2011	394
self-consolidating concrete	Equivalent Confinement in HPFRCC Columns Measured by Triaxial Test	108-M18	Alessandro P. Fantilli, Hirozo Mihashi, Paolo Vallini, and Bernardino M. Chiaia	Mar.-Apr. 2011	159

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
self-consolidating concrete	Experimental Study on Creep and Durability of High-Early-Strength Self-Consolidating Concrete for Precast Elements	108-M15	Young Hoon Kim, David Trejo, Mary Beth D. Hueste, and Jeong Joo Kim	Mar.-Apr. 2011	128
self-consolidating concrete	Influence of Hauling Time on Fresh Properties of Self-Consolidating Concrete	108-M26	Hamidou Diawara and Nader Ghafoori	May-June 2011	244
self-consolidating concrete	Permeation Properties of Self-Consolidating Concretes with Mineral Admixtures	108-M17	Erhan Güneýisi, Mehmet Gesoglu, and Erdogan Özbay	Mar.-Apr. 2011	150
self-consolidating concrete	Portable Vane Test to Assess Structural Buildup at Rest of Self-Consolidating Concrete	108-M67	Ahmed F. Omran, Siwar Naji, and Kamal H. Khayat	Nov.-Dec. 2011	628
self-consolidating concrete	Robustness of Self-Consolidating Concrete Incorporating Different Viscosity-Enhancing Admixtures	108-M46	Siwar Naji, Soo-Duck Hwang, and Kamal H. Khayat	July-Aug. 2011	432
self-consolidating concrete	Simple Analytical Model for Formwork Design of Self-Consolidating Concrete	108-M05	Jae Hong Kim, Mark W. Beacraft, Seung Hee Kwon, and Surendra P. Shah	Jan.-Feb. 2011	38
self-consolidating concrete	Viability of Two New Mixture Design Methodologies for Self-Consolidating Concrete	108-M61	Pedro Silva, Jorge de Brito, and João Costa	Nov.-Dec. 2011	579
self-desiccation	Evaluation of Autogenous Deformation of Concrete at Early Ages	108-M03	Sam Slatnick, Kyle A. Riding, Kevin J. Folliard, Maria C. G. Juenger, and Anton K. Schindler	Jan.-Feb. 2011	21
self-desiccation	Unified Shrinkage Model for Concrete from Autogenous Shrinkage Test on Paste with and without Ground-Granulated Blast-Furnace Slag	108-M02	Ya Wei, Will Hansen, Joseph J. Biernacki, and Erik Schlangen	Jan.-Feb. 2011	13
self-healing	Cracking and Healing of Engineered Cementitious Composites under Chloride Environment	108-M36	Mo Li and Victor C. Li	May-June 2011	333
sensor	Cement-Based Piezoelectric Ceramic Composite and Its Sensor Applications in Civil Engineering	108-M58	Biqin Dong, Feng Xing, and Zongjin Li	Sept.-Oct. 2011	543

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
shear	Effect of Aggregate Size on Shear Behavior of Lightweight Concrete Continuous Slender Beams	108-M53	Keun-Hyeok Yang, Jae-II Sim, Byong-Jeong Choi, and Eun-Taik Lee	Sept.-Oct. 2011	501
shear transfer	Space-Averaged Constitutive Model for HPRCCs with Multi-Directional Cracking	108-M16	Kohei Nagai, Benny Suryanto, and Koichi Maekawa	Mar.-Apr. 2011	139
shrinkage	Factors Affecting Bond between New and Old Concrete	108-M48	Pedro Miguel Duarte Santos and Eduardo Nuno Brito Santos Júlio	July-Aug. 2011	449
shrinkage	High-Early-Strength Engineered Cementitious Composites for Fast, Durable Concrete Repair—Material Properties	108-M01	Mo Li and Victor C. Li	Jan.-Feb. 2011	3
shrinkage modeling	Unified Shrinkage Model for Concrete from Autogenous Shrinkage Test on Paste with and without Ground-Granulated Blast-Furnace Slag	108-M02	Ya Wei, Will Hansen, Joseph J. Biernacki, and Erik Schlangen	Jan.-Feb. 2011	13
shrinkage-compensating concrete	Evaluation of Autogenous Deformation of Concrete at Early Ages	108-M03	Sam Slatnick, Kyle A. Riding, Kevin J. Folliard, Maria C. G. Juenger, and Anton K. Schindler	Jan.-Feb. 2011	21
shrinkage-reducing admixtures	Evaluation of Autogenous Deformation of Concrete at Early Ages	108-M03	Sam Slatnick, Kyle A. Riding, Kevin J. Folliard, Maria C. G. Juenger, and Anton K. Schindler	Jan.-Feb. 2011	21
silica fume	Effects of Silica Fume on Heat Generation of Curing Concrete	108-M70	A. K. H. Kwan, J. J. Chen, W. W. S. Fung, and P. L. Ng	Nov.-Dec. 2011	655
silica fume	Freezing-and-Thawing Durability of Pervious Concrete under Simulated Field Conditions	108-M21	Zhifu Yang	Mar.-Apr. 2011	187
silica fume	Neural Network Modeling of Rheological Parameters of Grouts Containing Viscosity-Modifying Agent	108-M34	Mohammed Sonebi and Savko Malinov	May-June 2011	316
silica fume	Sulfate Resistance of Mortar Mixtures of High-Calcium Fly Ashes and Other Pozzolans	108-M69	Rajaram Dhole, Michael D. A. Thomas, Kevin J. Folliard, and Thanos Drimalas	Nov.-Dec. 2011	645

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
sisal fiber	Impact Behavior of Sisal Fiber Cement Composites under Flexural Load	108-M19	Flávio de Andrade Silva, Deju Zhu, Barzin Mobasher, and Romildo Dias Toledo Filho	Mar.-Apr. 2011	168
slag	Neural Network Modeling of Rheological Parameters of Grouts Containing Viscosity-Modifying Agent	108-M34	Mohammed Sonebi and Savko Malinov	May-June 2011	316
slag	Strength and Durability of Concrete Made with Electric Steelmaking Slag	108-M22	Juan A. Polanco, Juan M. Manso, Jesús Setién, and Javier J. González	Mar.-Apr. 2011	196
slag cement	Lightweight Aggregate as Internal Curing Agent to Limit Concrete Shrinkage	108-M68	JoAnn Browning, David Darwin, Diane Reynolds, and Benjamin Pendergrass	Nov.-Dec. 2011	638
slow freezing and thawing	Freezing-and-Thawing Durability of Pervious Concrete under Simulated Field Conditions	108-M21	Zhifu Yang	Mar.-Apr. 2011	187
slump	Neural Network Modeling of Rheological Parameters of Grouts Containing Viscosity-Modifying Agent	108-M34	Mohammed Sonebi and Savko Malinov	May-June 2011	316
space-averaged model	Space-Averaged Constitutive Model for HPRCCs with Multi-Directional Cracking	108-M16	Kohei Nagai, Benny Suryanto, and Koichi Maekawa	Mar.-Apr. 2011	139
spalling	Effect of High Temperature on Tensile Strength of Different Types of High-Strength Concrete	108-M42	W. Khaliq and V. K. R. Kodur	July-Aug. 2011	394
splitting tensile strength	Effect of High Temperature on Tensile Strength of Different Types of High-Strength Concrete	108-M42	W. Khaliq and V. K. R. Kodur	July-Aug. 2011	394
spread value	Ultra-High Performance Concrete with Compressive Strength Exceeding 150 MPa (22 ksi): A Simpler Way	108-M06	Kay Wille, Antoine E. Naaman, and Gustavo J. Parra-Montesinos	Jan.-Feb. 2011	46
stability	Influence of Hauling Time on Fresh Properties of Self-Consolidating Concrete	108-M26	Hamidou Diawara and Nader Ghafoori	May-June 2011	244

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
static yield stress	Portable Vane Test to Assess Structural Buildup at Rest of Self-Consolidating Concrete	108-M67	Ahmed F. Omran, Siwar Naji, and Kamal H. Khayat	Nov.-Dec. 2011	628
steel fiber	Tests on Concrete Reinforced with Hybrid or Monolithic Steel and Polyvinyl Alcohol Fibers	108-M71	Keun-Hyeok Yang	Nov.-Dec. 2011	664
steel fiber	Ultra-High Performance Concrete with Compressive Strength Exceeding 150 MPa (22 ksi): A Simpler Way	108-M06	Kay Wille, Antoine E. Naaman, and Gustavo J. Parra-Montesinos	Jan.-Feb. 2011	46
steel fiber-reinforced concrete	Diverse Embedment Model for Steel Fiber-Reinforced Concrete in Tension: Model Development	108-M55	Seong-Cheol Lee, Jae-Yeol Cho, and Frank J. Vecchio	Sept.-Oct. 2011	516
steel fiber-reinforced concrete	Diverse Embedment Model for Steel Fiber-Reinforced Concrete in Tension: Model Verification	108-M56	Seong-Cheol Lee, Jae-Yeol Cho, and Frank J. Vecchio	Sept.-Oct. 2011	526
steel-concrete tribology	Pumping Quality Control Method Based on Online Concrete Pumpability Assessment	108-M45	Olga Río, Ángel Rodríguez, Samir Nabulsi, and Marina Álvarez	July-Aug. 2011	423
stiffness	Factors Affecting Bond between New and Old Concrete	108-M48	Pedro Miguel Duarte Santos and Eduardo Nuno Brito Santos Júlio	July-Aug. 2011	449
stiffness	Fire Tests of Hybrid and Carbon Fiber-Reinforced Polymer Bar Reinforced Concrete Beams	108-M27	Muhammad Masood Rafi and Ali Nadjai	May-June 2011	252
storm-water management	Mixture Proportion Development and Performance Evaluation of Pervious Concrete for Overlay Applications	108-M47	John T. Kevern, Vernon R. Schaefer, and Kejin Wang	July-Aug. 2011	439
straight fiber	Diverse Embedment Model for Steel Fiber-Reinforced Concrete in Tension: Model Development	108-M55	Seong-Cheol Lee, Jae-Yeol Cho, and Frank J. Vecchio	Sept.-Oct. 2011	516
straight fiber	Diverse Embedment Model for Steel Fiber-Reinforced Concrete in Tension: Model Verification	108-M56	Seong-Cheol Lee, Jae-Yeol Cho, and Frank J. Vecchio	Sept.-Oct. 2011	526

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
strain	Compressive Stress-Strain Relationships for North American Concrete under Elevated Temperatures	108-M29	Adam M. Knaack, Yahya C. Kurama, and David J. Kirkner	May-June 2011	270
strain	Constitutive Relationships for Normal- and High-Strength Concrete at Elevated Temperatures	108-M37	Farhad Aslani and Morteza Bastami	July-Aug. 2011	355
strength	Constitutive Relationships for Normal- and High-Strength Concrete at Elevated Temperatures	108-M37	Farhad Aslani and Morteza Bastami	July-Aug. 2011	355
strength	Design and Elaboration of Concrete Mixtures Using Steelmaking Slags	108-M72	Juan Manuel Manso, David Hernández, Maria Milagros Losáñez, and Javier Jesús González	Nov.-Dec. 2011	673
strength	Factors Affecting Bond between New and Old Concrete	108-M48	Pedro Miguel Duarte Santos and Eduardo Nuno Brito Santos Júlio	July-Aug. 2011	449
stress	Application of the Incremental Core-Drilling Method to Determine In-Situ Stresses in Concrete	108-M31	Christopher Trautner, Michael McGinnis, and Stephen Pessiki	May-June 2011	290
structural buildup at rest	Portable Vane Test to Assess Structural Buildup at Rest of Self-Consolidating Concrete	108-M67	Ahmed F. Omran, Siwar Naji, and Kamal H. Khayat	Nov.-Dec. 2011	628
structural fire design	Compressive Stress-Strain Relationships for North American Concrete under Elevated Temperatures	108-M29	Adam M. Knaack, Yahya C. Kurama, and David J. Kirkner	May-June 2011	270
structural performance	Performance of 100% Fly Ash Concrete with Recycled Glass Aggregate	108-M40	Michael Berry, Jerry Stephens, and Doug Cross	July-Aug. 2011	378
sulfate resistance	Sulfate Resistance of Mortar Mixtures of High-Calcium Fly Ashes and Other Pozzolans	108-M69	Rajaram Dhole, Michael D. A. Thomas, Kevin J. Folliard, and Thanu Drimalas	Nov.-Dec. 2011	645
superplasticizer	Synthesis and Properties of Amphoteric Superplasticizer	108-M65	Wenjuan Guo, Na Sun, Tao Yang, Meishan Pei, and Yingfei Wang	Nov.-Dec. 2011	614

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
surface-breaking cracks	Evaluating Surface-Breaking Cracks in Concrete Using Air-Coupled Sensors	108-M60	Seong-Hoon Kee, Eulalio Fernández-Gómez, and Jinying Zhu	Sept.-Oct. 2011	558
surface crack width	Influence of Surface Crack Width on Bond Strength of Reinforced Concrete	108-M04	Denglei Tang, Thomas K. C. Molyneaux, David W. Law, and Rebecca Gravina	Jan.-Feb. 2011	29
surface friction	Failure Behavior of Concrete Cylinders under Different End Conditions	108-M10	M. Roddenberry, R. Kampmann, M. H. Ansley, N. Bouchard, and W. V. Ping	Jan.-Feb. 2011	79
surface wave transmission	Evaluating Surface-Breaking Cracks in Concrete Using Air-Coupled Sensors	108-M60	Seong-Hoon Kee, Eulalio Fernández-Gómez, and Jinying Zhu	Sept.-Oct. 2011	558
sustainability	Mixture Proportion Development and Performance Evaluation of Pervious Concrete for Overlay Applications	108-M47	John T. Kevern, Vernon R. Schaefer, and Kejin Wang	July-Aug. 2011	439
sustainable development	Performance of 100% Fly Ash Concrete with Recycled Glass Aggregate	108-M40	Michael Berry, Jerry Stephens, and Doug Cross	July-Aug. 2011	378
temperature	Compressive Stress-Strain Relationships for North American Concrete under Elevated Temperatures	108-M29	Adam M. Knaack, Yahya C. Kurama, and David J. Kirkner	May-June 2011	270
temperature	Constitutive Relationships for Normal- and High-Strength Concrete at Elevated Temperatures	108-M37	Farhad Aslani and Morteza Bastami	July-Aug. 2011	355
temperature	Fire Tests of Hybrid and Carbon Fiber-Reinforced Polymer Bar Reinforced Concrete Beams	108-M27	Muhammad Masood Rafi and Ali Nadjai	May-June 2011	252
temperature	Heat Generation of Curing Fly Ash Concrete at Different <i>w/cm</i>	108-M33	A. K. H. Kwan, W. W. S. Fung, J. J. Chen, and P. L. Ng	May-June 2011	307
tensile	High-Early-Strength Engineered Cementitious Composites for Fast, Durable Concrete Repair—Material Properties	108-M01	Mo Li and Victor C. Li	Jan.-Feb. 2011	3

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
tensile capacity	Long-Term Performance of Glass Fiber-Reinforced Polymer Reinforcement Embedded in Concrete	108-M64	David Trejo, Paolo Gardoni, and Jeong Joo Kim	Nov.-Dec. 2011	605
tensile resistance capacity	Tests on Concrete Reinforced with Hybrid or Monolithic Steel and Polyvinyl Alcohol Fibers	108-M71	Keun-Hyeok Yang	Nov.-Dec. 2011	664
tensile strain capacity	Failure Behavior of Concrete Cylinders under Different End Conditions	108-M10	M. Roddenberry, R. Kampmann, M. H. Ansley, N. Bouchard, and W. V. Ping	Jan.-Feb. 2011	79
tensile stress	Diverse Embedment Model for Steel Fiber-Reinforced Concrete in Tension: Model Development	108-M55	Seong-Cheol Lee, Jae-Yeol Cho, and Frank J. Vecchio	Sept.-Oct. 2011	516
tensile stress	Diverse Embedment Model for Steel Fiber-Reinforced Concrete in Tension: Model Verification	108-M56	Seong-Cheol Lee, Jae-Yeol Cho, and Frank J. Vecchio	Sept.-Oct. 2011	526
textile	Impact Behavior of Textile and Hybrid Cement-Based Composites	108-M25	Efrat Haim and Alva Peled	May-June 2011	235
textile-reinforced concrete	Damage Behavior of Yarn Embedded in Concrete Using Acoustic Emission Analysis	108-M12	Bong-Gu Kang, Joachim Hannawald, and Wolfgang Brameshuber	Jan.-Feb. 2011	95
theoretical Ca/Si ratio	Activation of Fly Ash with Dehydrated Cement Paste	108-M23	Zhonghe Shui, Rui Yu, and Jun Dong	Mar.-Apr. 2011	204
thermo-gravimetric analysis	Self-Accelerated Reactive Powder Concrete Using Partially Hydrated Cementitious Materials	108-M63	Ahmed M. Soliman and Moncef L. Nehdi	Nov.-Dec. 2011	596
thixotropy	Portable Vane Test to Assess Structural Buildup at Rest of Self-Consolidating Concrete	108-M67	Ahmed F. Omran, Siwar Naji, and Kamal H. Khayat	Nov.-Dec. 2011	628
thixotropy	Rheology of Fly-Ash-Based Geopolymer Concrete	108-M57	Aminul Islam Laskar and Rajan Bhattacharjee	Sept.-Oct. 2011	536

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
triaxial stress	Validation of Performance-Dependent Failure Criterion for Concretes	108-M28	Paula Folino and Guillermo Etse	May-June 2011	261
triaxial tests	Equivalent Confinement in HPFRCC Columns Measured by Triaxial Test	108-M18	Alessandro P. Fantilli, Hirozo Mihashi, Paolo Vallini, and Bernardino M. Chiaia	Mar.-Apr. 2011	159
ultra-fine cement	High-Energy Ball Mill Parameters Used to Obtain Ultra-Fine Portland Cement at Laboratory Level	108-M39	Juan Carlos Arteaga-Arcos, Obed Arnoldo Chimal-Valencia, David Joaquín Delgado Hernández, Hernani Tiago Yee Madeira, and Sebastián Díaz de la Torre	July-Aug. 2011	371
ultra-fine fly ash	Sulfate Resistance of Mortar Mixtures of High-Calcium Fly Ashes and Other Pozzolans	108-M69	Rajaram Dhole, Michael D. A. Thomas, Kevin J. Folliard, and Thanu Drimalas	Nov.-Dec. 2011	645
ultra-high-performance concrete	Self-Accelerated Reactive Powder Concrete Using Partially Hydrated Cementitious Materials	108-M63	Ahmed M. Soliman and Moncef L. Nehdi	Nov.-Dec. 2011	596
ultra-high-performance concrete (UHPC)	Ultra-High Performance Concrete with Compressive Strength Exceeding 150 MPa (22 ksi): A Simpler Way	108-M06	Kay Wille, Antoine E. Naaman, and Gustavo J. Parra-Montesinos	Jan.-Feb. 2011	46
unconfined workability	Influence of Hauling Time on Fresh Properties of Self-Consolidating Concrete	108-M26	Hamidou Diawara and Nader Ghafoori	May-June 2011	244
vacuum saturation	Lightweight Aggregate as Internal Curing Agent to Limit Concrete Shrinkage	108-M68	JoAnn Browning, David Darwin, Diane Reynolds, and Benjamin Pendergrass	Nov.-Dec. 2011	638
verification analysis	Validation of Performance-Dependent Failure Criterion for Concretes	108-M28	Paula Folino and Guillermo Etse	May-June 2011	261
viscosity	Influence of Hauling Time on Fresh Properties of Self-Consolidating Concrete	108-M26	Hamidou Diawara and Nader Ghafoori	May-June 2011	244
viscosity	Neural Network Modeling of Rheological Parameters of Grouts Containing Viscosity-Modifying Agent	108-M34	Mohammed Sonebi and Savko Malinov	May-June 2011	316

Keywords	Paper Title	Paper No.	Author Names	Month/Year	Page No.
viscosity	Robustness of Self-Consolidating Concrete Incorporating Different Viscosity-Enhancing Admixtures	108-M46	Siwar Naji, Soo-Duck Hwang, and Kamal H. Khayat	July-Aug. 2011	432
water reducers	Use of Water Reducers to Improve Grindability and Performance of Portland Cement Clinker	108-M66	Joseph J. Assaad and Salim E. Asseily	Nov.-Dec. 2011	619
water-binder ratio	Validation of Performance-Dependent Failure Criterion for Concretes	108-M28	Paula Folino and Guillermo Etse	May-June 2011	261
water-cement ratio	Another Look at the Relationship between Strength and Composition of Concrete	108-M13	Sándor Popovics	Mar.-Apr. 2011	115
wet-dry cycles	Freezing-and-Thawing Durability of Pervious Concrete under Simulated Field Conditions	108-M21	Zhifu Yang	Mar.-Apr. 2011	187
workability	Design and Elaboration of Concrete Mixtures Using Steelmaking Slags	108-M72	Juan Manuel Manso, David Hernández, Maria Milagros Losáñez, and Javier Jesús González	Nov.-Dec. 2011	673
yield stress	Neural Network Modeling of Rheological Parameters of Grouts Containing Viscosity-Modifying Agent	108-M34	Mohammed Sonebi and Savko Malinov	May-June 2011	316
yield stress	Rheology of Fly-Ash-Based Geopolymer Concrete	108-M57	Aminul Islam Laskar and Rajan Bhattacharjee	Sept.-Oct. 2011	536
Young's modulus	Compressive Stress-Strain Relationships for North American Concrete under Elevated Temperatures	108-M29	Adam M. Knaack, Yahya C. Kurama, and David J. Kirkner	May-June 2011	270
zeta potential	Synthesis and Properties of Amphoteric Superplasticizer	108-M65	Wenjuan Guo, Na Sun, Tao Yang, Meishan Pei, and Yingfei Wang	Nov.-Dec. 2011	614