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PUBLICATIONS

Refereed Articles

2010

- “Effect of Mineral Admixtures on Formwork Pressure of Self-Consolidating Concrete,” *Cement Concrete and Composite*, Vol. 32, No. 9, October 2010, pp. 665-671 (with J. H. Kim and M. Beacraft)
- “Highly Dispersed Carbon Nanotube Reinforced Cement Based Materials,” *Cement and Concrete Research*, Vol. 40, No. 7, July 2010, pp. 1052-1059 (with M. S. Konsta-Gdoutos and Z. S. Metaxa)
- “Small Changes Can Make a Great Difference,” *Transportation Research Record*, Vol. 2141, May 2010, pp. 1-5 (with J. J. Gaitero, I. Campillo, and P. Mondal)
- “Comparative Study of the Effects of Microsilica and Nanosilica in Concrete,” *Transportation Research Record*, Vol. 2141, pp. 6-9 (with P. Mondal, L. D. Marks and J. J. Gaitero)
- “Influence of Micro- and Nanoclays on Fresh State of Concrete,” *Transportation Research Record*, Vol. 2141, May 2010, pp. 68-74 (with N. A. Tregger and M. Pakula)
- “Observation of Cement Paste Microstructure Evolution,” *Transportation Research Record*, Vol. 2141, May 2010, pp. 75-81 (with G. Venkateela and Z. Sun)
- “The Fresh State: From Macroscale to Microscale to Nanoscale,” *Transportation Research Record*, Vol. 2141, May 2010, pp. 89-91 (with R. D. Ferron)
- “Atomic Force Acoustic Microscopy to Measure Nanoscale Mechanical Properties of Cement Pastes,” *Transportation Research Record*, Vol. 2141, May 2010, pp. 102-108 (with J. H. Kim and O. Balogun)
- “Carbon Nanofiber-Reinforced Cement-Based Materials,” *Transportation Research Record*, Vol. 2142, May 2010, pp. 114-118 (with Z. S. Metaxa and M. S. Konsta-Gdoutos)
- “American Road Map for Research for Nanotechnology-Based Concrete Materials,” *Transportation Research Record*, Vol. 2142, May 2010, pp. 130-137 (with B. Birgisson, P. Taylor, and J. Armaghani).
- “Improvement of Fresh-State Concrete through Small Additions of Clay”, *ACI Committee 267 Special Publication: Advances in the Material Science of Concrete SP-270*, J. H. Ideker and A. Radlinska ed., March 2010, pp. 51-66 on disk (with N. Tregger, R. Ferron, M. Beacraft, J. H. Kim, and K. Kuder)
- “Cement-Based Materials Characterization at Nanoscale: Nanoindentation and Ultrasonic Atomic Force Microscopy,” *ACI Committee 267 Special Publication: Advances in the Material Science of*

Concrete SP-270, J. H. Ideker and A. Radlinska ed., March 2010, pp. 67-76 on disk (with J. H. Kim and P. Mondal)

- “Mechanical Properties and Nanostructure of Cement-Based Materials Reinforced with Carbon Nanofibers and Polyvinyl Alcohol (PVA) Microfibers,” *ACI Committee 267 Special Publication: Advances in the Material Science of Concrete SP-270*, J. H. Ideker and A. Radlinska ed., March 2010, pp. 115-124 on disk (with Z. Metaxa and M. S. Konsta-Gdoutos)
- “Influence of Clays on the Rheology of Cement Pastes,” *Cement and Concrete Research*, Vol. 40, No. 3, March 2010, pp. 384-391 (with N. A. Tregger and M. E. Pakula)
- “Multi-Scale Mechanical and Fracture Characteristics and Early-Age Strain Capacity of High Performance Carbon Nanotube/Cement Nanocomposites,” *Cement and Concrete Composites*, Vol. 32, No. 2, February 2010, pp. 110-115 (with M. S. Konsta-Gdoutos and Z. S. Metaxa)
- “Intrinsic Model to Predict Formwork Pressure,” *ACI Materials Journal*, Vol. 107, No. 1, January 2010, pp. 20-26 (with S. H. Kwon, Q. T. Phung, J. H. Kim and Y. Lee)
- “Predicting Dynamic Segregation of Self-Consolidating Concrete from the Slump-Flow Test,” *Journal of ASTM International*, Vol. 7, No. 1, January 2010, Paper ID: JAI101970 (with N. Tregger N and L. Ferrara)

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- “Carbon Nanotubes Reinforced Concrete” *ACI Committee 267 Special Publication: Nanotechnology of Concrete: The Next Big Thing Is Small SP-267*, K. Sobolev and M. Reda Taha ed., October 2009, pp. 11-20, on disk (with Z. Metaxa and M. S. Konsta-Gdoutos)
- “Properties of Early-age Concrete Monitored with Two Nondestructive Testing Methods,” *ASCE Journal of Materials in Civil Engineering*, Vol. 21, No. 9, September 2009, pp. 476-483 (with J.H. Kim, Z. Sun, and H.G. Kwak).
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- “Nanoscale Characterization of Cementitious Materials,” *ACI Materials Journal*, Vol. 105, No. 2, March/April 2008, pp. 174-179 (with P. Mondal and L.D. Marks)

- “Correlation among Fresh State Behavior, Fiber Dispersion, and Toughness Properties of SFRCs,” *Journal of Materials in Civil Engineering*, Vol. 20, No. 7, July 2008, pp. 493-501 (with L. Ferrera and Y. Park)
- “Next Horizon in High Performance Concrete: Self-consolidating Concrete and Nanotechnology,” *The Indian Concrete Journal*, Vol. 82, No. 1, January 2008, pp. 9-21 (with P. Mondal, R. Ferron, N. Tregger, and Z. Sun)
- “Effect of Specimen Size on Fracture Energy and Softening Curve of Concrete: Part I. Experiments and Fracture Energy,” *Cement and Concrete Research*, Vol. 38, No. 8-9, August 2008, pp. 1049-1060 (with Z.F. Zhao and S.H. Kwon)
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- “Rheological Method to Evaluate the Thixotropy of Cement Pastes for SCC,” *ACI Materials Journal*, Vol. 104, No. 3, May/June 2007, pp. 242-250 (with R. Ferron, A. Gregori, and Z. Sun)
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- “Digital Image Correlation Analysis of Interfacial Debonding Properties and Fracture Behavior in Concrete,” *Engineering Fracture Mechanics*, Vol. 74, Issue 1-2, January 2007, pp 109-121 (with D. Corr, M. Accardi, L. Graham-Brady)
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- "Use of Nondestructive Ultrasonic Techniques for Material Assessment and in-Service Monitoring of Concrete Structures," International Symposium on Nondestructive Testing Contribution to the Infrastructure Safety Systems, Santa Maria, Brazil, November 22-26, 1999 (with K.V. Subramaniam)
- "Influence of Size and Geometry on Bond Induced Cracking of Reinforced Concrete," ASCE, 1999 (with M. Ghandehari and S. Krishnaswamy)
- "Extruded Fiber-Reinforced Cement Composites Containing Fly Ash," Published and presented to the 13th International Symposium on Management and Use of Coal Combustion Products, *Journal of American Coal Ash Association Education Foundation*, January 10-14, 1999, p32.
- "Effect of Fiber Length in Extruded and Cast Cement Composites," *ACI-SP 190*, Chicago 1999 (with A. Peled and Y. Akkaya)
- "Fly Ash as Replacement for Cement in Extruded Fiber-Reinforced Cement Composites," 61st Annual American Power Conference, April 6-8, 1999 (with A. Peled and Y. Akkaya)
- "Characterization of the Rheological Properties of Cement Mask in Self-Compacting Concrete," RILEM, pp. 120-127, Stockholm, 1999 (with A. Saak and H. Jennings)
- "An Experimental Investigation to Determine the Influence of Size on the Flexural Behavior of High Strength Reinforced Concrete Beams," 5th International Symposium on the Utilization of High Strength and High Performance Concrete, Norway, June 1999
- "The Influence of a Shrinkage Reducing Admixture on the Early-Age Shrinkage Behavior of High Performance Concrete," 5th International Symposium on Utilization of High Strength and High Performance Concrete, Norway, June 1999

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- "Properties and Applications of High Performance PVA Fiber Reinforced Concrete," First International Symposium on SnFRC, Orlando, February 1998
- "Coupling Laboratory Experiments and Problem-Based-Education to Teach Independent Learning," Fifth Faculty Enhancement Workshop, "Teaching the Materials Science, Engineering, and Field Aspects of Concrete," Berkeley, California, July 12-15, 1998
- "Permeability of Concrete – Relationships to its Mix Proportion, Microstructure, and Microcracks" proceedings of the *Sidney Diamond Symposium*, August 30 – September 3, 1998, Honolulu, Hawaii. (with K. Wang and T. Igusa)
- "Shrinkage Cracking Potential, Permeability, and Strength for HPC: Influence of W/C, Silica Fume, Latex, and Shrinkage Reducing Admixtures" proceedings of the *Canadian Symposium on High*

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- “Water Permeability of Cracked Concrete,” Published in the 12th ASCE Engineering Mechanics Conference Proceedings, La Jolla California, May 17-20, 1998, ed. H Murakami and J.E. Luco, pp. 1158-1162 (with C. Aldea, S. Jaiswal, B. Ankenman, J. Picka, T. Igusa and A. Karr)
- “Water Permeability of Cracked High Strength Concrete,” International Symposium on High-Performance and Reactive Powder Concretes, August 16-20, 1998, Sherbrooke, Canada, ed. Pierre-Claude Aitcin and Yves Delagrave, pp. 211-266 (with C. Aldea and A. Karr)
- “Advances in the Science and Technology of Ferrocement,” Sixth International Symposium on Ferrocement – Lambot Symposium, University of Michigan, June 1998 (with A. Peled)
- “Ultra High Performance Concrete: A Look to the Future,” presented at the Paul Zia International Symposium at the 1998 Spring Convention of the American Concrete Institute (with W. Jason Weiss)
- “Microstructure, Microcracking, Permeability, and Mix Design Criteria of Concrete,” proceedings of the *Fifth International Conference on Structural Failure, Durability, and Retrofitting*, November 27-28, 1997, Singapore.
- “Extrusion Technology for the Production of Fiber-Cement Composites,” Presented at the Sixth International Inorganic C-Bonded Wood and Fiber Composite Materials Conference, September 27-30, 1998, Sun Valley Idaho (with A. Peled, D. DeFord, Y. Akkaya and R. Srinivasan)
- “Is High Strength Concrete Durable?,” presented to the International Workshop on Concrete Technology for A Sustainable Development in the 21st Century, Svolvær, Lofoten Islands, Norway, June 24-27, 1998 (with K. Wang and W.J. Weiss)
- “A Study of the Mixed Mode Fracture Using Disk Specimen,” pp. 701- 706. (with A. Castro-Montero and Z. Jia)

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- “Restrained Shrinkage Cracking in Concrete,” proceedings of the *Sixth International Purdue Conference on Concrete Pavement: Design and Materials for High Performance*, November 18-21, 1997, Purdue. (with J. Weiss and W. Yang)
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- “Influence of Microstructure and Fracture on the Transport Properties in Cement-Based Materials,” proceedings of the *Fifth International Symposium on Brittle Matrix Composites*, October 13-15, 1997, Warsaw, Poland. (with S. Jaiswal, T. Igusa, T. Styer, and A. Karr)
- “Recent Trends to Reduce Shrinkage Cracking in Concrete Pavements,” proceedings of the *Airfield Pavement Conference*, August 17-20, 1997, Seattle. (with J. Weiss)
- “Vibrational Resonances in Finite Length Concrete Cylinders,” proceedings of the *ASNT’s 1997 Spring Conference Sixth Annual Research Symposium*, March 17-21, 1997, Houston. (with J. Popovics and K. Subramaniam)
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- “NDE of Fracture in Advanced Cement-Based Materials,” Non-Destructive Testing of Concrete Structures, Proceedings of the INDO-US Workshop on Non-Destructive Testing (Edited with S.K. Kaushik, and A.K. Maji), c. August 1997, pp. 1-14

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Keynote Lecture "Fracture Mechanics of Fiber Reinforced Cement-Based Composites," proceedings of the *Tenth ASCE Engineering Mechanics Specialty Conference*, May 21-24, 1995, Boulder, Colorado.

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