

HONORS AND OTHER PROFESSIONAL ACTIVITIES

Member, National Academy of Engineering
Foreign Member, Chinese Academy of Engineering
Fellow, Indian Academy of Engineering
NAE Liaison Committee
NAS Panel to evaluate NIST Building and Fire Research (2009-2010)
Honorary Member, American Concrete Institute
Honorary Member, The International Union of Laboratories and Experts in Construction Materials, Systems and Structures (RILEM, from the name in French)
Elizabeth D. Rockwell Engineering Lecture, University of Houston
Distinguished Lecture Series, University of California, Los Angeles, May 2009
Honorary Professor, University of L'Aquila
Fulbright Award, Indian Institute of Technology, Mumbai, India
Della Roy Lecture, American Ceramic Society, Detroit, September 2007
Frank E. Richart Distinguished Lecture, University of Michigan, 2007
Named to the "Top Ten Most Influential Persons in the Concrete Industry," by Concrete Construction, 2006
Modeling, Measuring, and Monitoring Concrete Properties, Conference Organized in Honor of Surendra P. Shah, Greece
Robert E. Philleo Award, American Concrete Institute, Concrete Research Council, 2006
Conference Dedication and Special Award, 6th RILEM Symposium on Fiber-Reinforced Concretes (FRC) – BEFIB 2004, Varenna, Italy
Honorary Professor, Department of Civil and Structural Engineering, Hong Kong Polytechnic University
Honorary Symposium, Celebrating Concrete: People and Practice, Conference Dedication and CTU Award, University of Dundee. Scotland
American Concrete Institute, Honorary Symposium- Concrete: Material Science to Application, A Tribute to Surendra P. Shah
The Richard J. Carroll Memorial Lectureship, Johns Hopkins University
American Concrete Institute, Illinois Chapter, Henry Crown Award, 2000
American Concrete Institute, Arthur R. Anderson Award to ACBM Center, 1999
Charles Pankow Award for Innovation (Collaborative Work with W.R. Grace and ARCO), American Society of Civil Engineers, Civil Engineering Research Foundation, 1997
Engineering-News Record (ENR) Newsmaker Award, 1996
Swedish Concrete Award, 1993
Walter P. Murphy Professor of Civil Engineering
Arthur R. Anderson Award, American Concrete Institute, 1989
Sanford E. Thompson Award, American Society of Testing and Materials (ASTM), 1983
RILEM Gold Medal Award, 1980
Teaching Excellence Award, CE students
Distinguished Visiting Professor, National University of Singapore
Alexander von Humboldt Fellowship Award for Distinguished Senior Scientist
NATO Visiting Senior Scientist to Turkey
Guest Professor, Denmark Technical University
Guest Professor, Delft University of Technology, Delft, The Netherlands
Consultant to NATO Science for Stability Program
Visiting Professor, University of Sydney
NATO Visiting Senior Scientist to France
Member of the Evaluation Team of Danish Research Groups in the field of Concrete
UNIDO Consultant to People's Republic of China
UNESCO Expert to India
Member, Editorial Board, ASCE Journal of Civil Engineering Materials
Member, Editorial Board, Journal of Ferrocement
Member, Editorial Board, RILEM Journal of Materials and Structures
Editor-in-Chief, Concrete Science and Engineering

Keynote Speaker

International Conference on Advances in Construction Materials through Science and Engineering, Hong Kong SAR, China, September 2011

International Conference of Ecological Environment and Technology of Concrete, Beijing, China, August 2011

18th European Conference on Fracture, Dresden, Germany, September 2010

Invited Talk: Università Politecnica della Marche, Ancona, Italy, June 2010

First International Conference in North America on Nanotechnology in Cement and Concrete, Beckman Center, Irvine, CA, May 2010

International Conference on Advanced Concrete Materials, Stellenbosch, South Africa, November 2009

Computational Design of Cementitious Materials: 1st CODICE Workshop on Multi-scale Modelling and Experiments for Cementitious Materials, Bergamo, Italy, September 2009

RILEM International Symposium on Rheology combining with the 18th Nordic Rheology Conference, Reykjavik, Iceland, August 2009

US-Korea Conference on Science, Technology and Entrepreneurship: Sustainable Structural Design in Natural Hazard Environments, North Carolina State, Raleigh, NC, July 2009

Second International Symposium on Design, Performance and Use of Self-Consolidating Concrete, Beijing, China, June 2009

NICOM3: 3rd International Symposium on Nanotechnology in Construction, Prague, Czech Republic, May/June 2009

International Symposium on Safety and Durability of Materials and Construction (SEDUREC 2009), Barcelona, Spain, February, 2009

Third North American Conference on the Design and Use of Self-Consolidating Concrete: Challenges and Barriers to Application, Chicago, IL, November 2008

The Second Columbia Conference on Architecture, Engineering and Materials, Solid States: Changing Time for Concrete, Columbia University, New York, NY, October 2008

International Conference: Microstructural Related Durability of Cementitious Composites, Southeast University, Nanjing China, October 2008

Invited Talk: The Hong Kong Polytechnic University, Hong Kong, China, October 2008

IBRACON, 50th Brazilian Concrete Congress, Salvador, Brazil, September 2008

Second Workshop on Advanced Characterization, Modeling and Design of Concrete Pavements, Berkeley, CA August 2008, Invited

Second Workshop on Advanced Characterization, Modeling and Design of Concrete Pavements, Berkeley, CA August 2008, Invited

Invited Talk: University of Cyprus, Cyprus, July 2008

6th RILEM International Conference on Cracking in Pavement, Chicago, IL June 2008, Invited

4th National Congress of the Italian Ready-Mixed Concrete Industry Rimini, Italy, May 2008, Invited

First Spanish Congress on Self-Compacting Concrete Valencia, Spain, February 2008, Invited

4th National Congress of the Italian Ready-Mixed Concrete Industry Rimini, Italy, May 2008, Invited

6th RILEM International Conference on Cracking in Pavement, Chicago, IL June 2008, Invited

Second Workshop on Advanced Characterization, Modeling and Design of Concrete Pavements, Berkeley, CA August 2008, Invited

International Conference: Advances in Cement Based Materials and Applications to Civil Infrastructure Lahore, Pakistan December 2007, Invited

International Workshop: Cement Based Materials and Civil Infrastructure Karachi, Pakistan December 2007, Invited

Fifth RILEM Symposium on Self-Compacting Concrete Ghent, Belgium, September 2007, Invited

Frank E. Richart Distinguished Lecture Department of Civil and Environmental Engineering, University of Michigan, September 2007, Invited

Processing of High Performance Fiber Reinforced Cement-Based Materials 10th Int. Inorganic-Bonded Fiber Composites Conference, Sao Paulo Brazil, November 2006

Next Horizon in High Performance Concrete University of Florida, December 2006

The Application of High-Frequency Shear Waves in Echographic Mode for Nondestructive Testing of Cement-Based Materials at Early Ages Conference on Damage in Composite Materials: Non

Destructive Testing and Simulation, University of Stuttgart, Germany, September 2006, Invited
Keynote Lecture
Conference on Damage in Composite Materials: Non Destructive Testing and Simulation, University of
Stuttgart, Germany
Invited Talk: University of Florida
10th Int. Inorganic-Bonded Fiber Composites Conference, Sao Paulo, Brazil
Opening Lecture, RILEM Conference on Fiber Reinforced Concretes, Varenna, Italy September 2004
Keynote Lecture, Concrete Under Severe Environment, Seoul, Korea, June 2004
Keynote Lecture, Sustainable Development and Concrete Technology, Beijing, China, May 2004
Opening Paper, International Symposia, Role of Concrete in Sustainable Development, Dundee, Scotland,
September 2003
Keynote Lecture, Structures Congress, IIT Kharagpur, December 2003
RILEM 3rd International Symposium on Self-Compacting Concrete, Reykjavik, Iceland, August 2003
American Concrete Institute Fall 2002 Convention, Phoenix, Arizona, October 2002
Hong Kong Polytechnic University Conference for Advances in Building Technology, Hong Kong,
December 2002
University of Dundee International Congress: Challenges of Concrete Construction, Dundee, Scotland,
September 2002
Advances in Civil Engineering, IIT, Kharagpur, India, January 2002
Microcracking, Ductility, and Durability, Denmark, May 2002
Italian Fracture Workshop, Brescia, Italy, November 2001
Ferrocement 7, Singapore, July 2001
Concrete Under Severe Conditions, CONSEC IV, Vancouver, British Columbia, June 2001
American Society of Civil Engineers, Baltimore, MD, March 2001
"Early-Age Cracking of High Performance Concrete," University of Houston, April 2001
University of Chile, Santiago, Chile, April 2001
"Advances in Concrete through Interdisciplinary Research," Gent University, Belgium, May 2001
High Performance Concrete, Hong Kong, December 2000
Cement and Concrete Technology in 2000, Istanbul, Turkey, September 2000
Conference on Nondestructive Testing, Torres, Brazil, November 1999
Euromat Conference, "Fibre Reinforced Concrete," Munich, Germany, September 1999
Creating with Concrete Conference, University of Dundee, Scotland, September 1999
12 International Conference on Composite Materials, "Advanced Cement-Based Composites," Paris,
France, July 1999.
8th DBMC, Vancouver, Canada, May-June 1999
First International Symposium on SnFRC, Orlando, Florida, February 1998
Sixth International Symposium on Ferrocement, University of Michigan, June 1998
Fifth International Conference on Failure, Durability & Retrofiltering, Singapore, November 1997
US-Japan Workshop on Civil Infrastructure, Honolulu, August 1997
Engineering Foundation Conference on High Performance Concrete, Hawaii, July 1997
TCDC Workshop on "Advances in High Performance Concrete Technology and its Applications," Madras,
India, April 1997
US-India Workshop on NDT of Concrete, Roorkee, India, December 1996
IUPAC/Chemrawn IX, Seoul, South Korea, September 1996
Concrete in the Service of Mankind, Dundee, Scotland, June 1996.
Fourth International Symposium on Utilization of High-Strength/High Performance Concrete, Paris, France,
May 1996
Concrete under Severe Conditions (CONSEC '95), Sapporo, Japan, August 1995
Fourth Congress on Mechanics, Xanthi, Greece 1995.
11th European Ready Mixed Concrete Congress & Exhibition, Istanbul, Turkey, June 1995
Tenth ASCE Engineering Mechanics Specialty Conference, Boulder, Colorado, May 1995.
ASCE Mechanics Conferences, Boulder, Colorado, May 1995
Industry-University Conference on Fiber Reinforced Concrete, Toronto, March 1995
ASCE Materials Conference, San Diego, November 1994
RILEM Workshop on Technology transfer, Barcelona, Spain, November 1994
IUTAM Conference, Torino, Italy, September 1994
Lectureship Program, National Science Council, Republic of China, December 1993

Symposium on Utilization of High-Strength Concrete, Lillehammer, Norway, June 1993
Conference on Micromechanics of Concrete and Cementitious Composites, Lausanne, Switzerland
March 1993
ASME Conference, Anaheim, California, November 1992
RILEM Conference on Interface in Cementitious Composites, Toulouse, October 1992
Concrete Technology of the Future, RILEM Workshop, Finland, September 1992
FRAMCOS Conference, Colorado, June 1992
Spanish-French Meeting on Fracture Mechanics, Costa-Brava, Spain, April 1992
50th Anniversary of Swedish Cement and Concrete Institute, Stockholm, June 1992
Advances in Cement-Based Composites for Construction Industry, SAMPE Symposium, Tokyo, Japan,
December 1991
Symposium on Fatigue in Steel and Concrete Structures, Madras, India, December 1991
Noordwijk Conference on Disordered Materials, Holland, June 1991
First Canadian University - Industry Workshop on Fibre Reinforced Concrete, Quebec, October 1991
Damage and Diagnosis of Materials and Structures, Torino, Italy, September 1991
Fiber Reinforced Cementitious Materials, Materials Research Society Symposium, November 1990
Workshop on Inorganic Bonded Wood Composites, Idaho, October 1990
International Conference on Micromechanics of Failure of Quasi-brittle Materials, Albuquerque, June 1990
Materials Research Society Symposium on Fiber Reinforced Cementitious Materials, December 1990
International Conference on Fracture of Concrete and Rock, Cardiff, 1989.
Workshop on Fracture Toughness and Fracture Energy, Tohoku University, Sendai, Japan, October 1988
International Conference on Fracture and Damage of Concrete and Rocks, Vienna, July 1988
Materials, Research Society Symposium on Bonding in Cementitious Composites, Boston, December 1987
International Symposium on Fiber Reinforced Concrete, Madras, India, December 1987
40th Anniversary, RILEM Conference on Materials Science and Materials Engineering Versailles, France,
September 1987
RILEM Conference on Fracture of Concrete and Rock, Houston, June 1987
International Conference on Urban Shelter in Developing Countries, London, September 1987
Council on Tall Buildings, Chicago, January 1986
International Conference on Natural Fiber Reinforced Concrete, Iraq, October 1986
PCI Conference on Durability of Glass Fiber Reinforced Concrete Panels, Chicago, November 1985
Materials Research Society, Annual Meeting, Boston, December 1985
International Conference on Ferrocement, Bangkok, January 1985
Sixth International Conference on Fracture, New Delhi, December 1984
RILEM Conference on Multiaxial Loading of Concrete, Toulouse, May 1984
7th International Conference on Structural Mechanics in Reactor Technology, SMiRT-7, Chicago, August
1983
RILEM-CEB-IABSE-IASS Symposium on Concrete Structures under Impact and Impulsive Loading,
Berlin, June 1982
International Conference on Constitutive Laws for Engineering Materials, Tucson, Arizona, January 1982
UN Conference on Modernization of Concrete Construction, Madras, India, January 1982
Annual Conference of the Materials Research Society, Boston 1980
NATO Advanced Research Institute, Paris, November 1980
Caribbean Conference on Concrete Structures, Santo Domingo, July 1979
Scandinavian Conference on Fiber Reinforced Concrete, Stockholm, June 1977
Pan American Structural Conference, Caracas, Venezuela, 1974

TECHNICAL COMMITTEES

NAE Liaison Committee
NAS Panel to evaluate NIST Building and Fire Research (2009-2010)
ACI- 215 Fatigue of Concrete
ACI- 236 Material Science of Concrete
ACI- 237 Self-Consolidating Concrete
ACI- 231 Properties of Concrete at Early Ages
ACI- 440 Fiber Reinforced Polymer Reinforcement
ACI- 544 Fiber Reinforced Concrete
ACI- 548 Polymers in Concrete
ACI- 549 Thin Reinforced Cementitious Products and Ferrocement
Member, Transportation Research Board Task Force on Nanotechnology
Member, Bureau, RILEM (2002)
Chair, Advisory Committee, Engineering Mechanics Division, ASCE (1999-2001)
Chairman, Executive Committee, Engineering Mechanics Division, American Society of Civil Engineers (1996-1997)
Chairman, Properties of Concrete, Transportation Research Board (1993-96)
Member, National Initiative on High-Performance Concrete (past)
Member, Materials Research Council, American Concrete Institute (past)
Member, Management Advisory Board, RILEM
Member, Advisory Committee on Cement and Concrete, Strategic Transportation Research Study (1985-1986)
Chairman, RILEM Committee on Strain-Softening of Concrete
Chairman, RILEM Committee on Fracture of Concrete (1986-1992)
Chairman, Fiber Reinforced Concrete, American Concrete Institute (past)
Vice Chairman, Fracture of Concrete and Rock, Society of Experimental Mechanics
Member, High Strength Concrete, American Concrete Institute
Member, Ferrocement, American Concrete Institute
Member, Fracture Mechanics, American Concrete Institute
Member, Polymer Concrete, American Concrete Institute
Chairman, Fatigue of Concrete Structures, American Concrete Institute (past)
President, Chicago Chapter, American Concrete Institute (1974-75)
Chairman, Properties of Materials, Engineering Mechanics Division, American Society of Civil Engineers (1973-75, 1985-87)
Member, Ad Hoc Committee on Ferrocement for Developing Countries, National Academy of Sciences (1971-1972)

CONFERENCES

Co-Chair, SCC 2013, Fifth North American Conference on the Design and Use of Self-Consolidating Concrete, Westin Michigan Avenue, Chicago, IL, USA, May 12–15, 2013
Chair of Scientific Team, First International Conference in North America on Nanotechnology in Cement and Concrete, Beckman Center, Irvine, CA, May 5-7, 2010
Co-Chair, US-India Workshop for Concrete in Extreme Events, Mumbai, December 2009,
Chair, SCC 2008, Third North American Conference on the Design and Use of Self-Consolidating Concrete, Chicago, November, 2008
Co-Chairman of Organizing Committee, Lahore, Pakistan 2007
Member, Advisory Board, Conference on Damage in Composite Materials; Non Destructive Testing and Simulation
Member, International Scientific Committee, FRAMCOS 6th International Conference
Member, Scientific Committee, 10th Int. Inorganic-Bonded Fiber Composites Conference, Sao Paulo, Brazil, Nov. 2006
Chair, SCC 2005, Combining the Second North American Conference on the Design and Use of Self-Consolidating Concrete and the Fourth International RILEM Symposium on Self-Compacting Concrete, Chicago, November, 2005

- Co-Chairman, International Conference on Advances in Concrete Composites and Structures, Chennai, India, January 2005
- Co-Chairman, International Conference, Advances in Concrete Structures and Materials, Xizou, China, May 2004
- Co-Chair, First North American Conference on the Design and Use of Self-Consolidating Concrete, Chicago, November 2002
- Co-Chairman, ACI-RILEM Symposium in Non-Destructive Evaluation, Dallas, October 2001
- Chair, Symposium on High Performance Fiber Reinforced Thin Products, ACI, Chicago, March 1999
- Co-Chairman, Symposium on Materials Science of Concrete, ACI, Chicago, March 1999
- Co-Chairman, Engineering Foundation Conference, Canada July, 1998
- Co-Chairman, Materials for Infrastructure, Institute of Mechanics and Materials, UCSCD, April 1998
- Co-Chairman, Symposium on Nondestructive Characterization of Materials in Aging Systems, Materials Research Society, Boston, December 1997
- Co-Chairman, Symposium on Advanced Cement-Based Materials, McNU '97, Evanston, IL June 1997
- Co-Chairman, Symposium HH: Structure-Property Relationships in Hardened Cement Paste and Composites, Materials Research Society, 1996 Fall Meeting, Boston, December 1996
- Co-Chairman, Synthesizing Cement-Based Materials for the 21st Century, American Chemical Society, National Meeting, Chicago, 1995
- Co-Chairman, International Conference Workshop on Technology Transfer of the New Trends in Concrete, Barcelona, Spain, November 1994
- Co-Chairman, SEM Conference on Nondestructive Testing of Concrete in the Infrastructure, Dearborn, Michigan, June 1993
- Co-Chairman, ACI Symposium on Materials Science in Concrete, Boston, March 1991
- Co-Chairman, ACI Symposium on Fiber Reinforced Concrete, Dallas, November 1991
- Co-Chairman, International Conference on Micromechanics of Failure of Quasi-Brittle Materials, Albuquerque, June 6-8, 1990
- Chairman, NATO-ARW on Toughening Mechanism of Quasi-Brittle Materials, Northwestern University, July 1990
- Co-Chairman, International Conference on Fracture of Concrete and Rock, Cardiff, September 1989
- Co-Chairman, Symposium on Bond in Cement Based Composites, Materials Research Society, Boston, December 1987
- Co-Chairman, International Conference on Fracture of Concrete and Rock, Society of Experimental Mechanics, Houston, June 1987
- Co-Chairman, Symposium on Strain Rate Effects in Cement-Based Composites, Materials Research Society, Boston, December 1985
- Member, Organizing Committee, RILEM Symposium on Fracture of Concrete, Laussane, October 1985.
- Co-Chairman, NSF-STU Seminar on Steel Fiber Reinforced Concrete, Stockholm, June 1985
- Co-Chairman, International Symposium on Ferrocement, Bangkok, January 1985
- Chairman, NATO Advanced Research Workshop on Nonlinear Fracture Mechanics, Northwestern University, Evanston, September 1984
- Member, Scientific Committee, RILEM-CEB Conference on Multiaxial Loading, Toulouse, April 1984
- Chairman, ACI-RILEM Symposium on Fatigue, Detroit, September 1982
- Member, Advisory Panel and Chairman of the Session, International Conference on Bond in Concrete, Scotland, June 1982
- Co-Chairman, RILEM Symposium on Ferrocement, Bergamo, Italy, July 1981
- Chairman, Symposium on Recent Research on Fatigue of Concrete Structures, ACI, Puerto Rico, Sept. 1980; Dallas, February 1981
- Chairman, National Science Foundation Sponsored Workshop on High Strength Concrete, 1979
- Member, Steering Committee, Gordon Conference on Building Materials, 1973
- Chairman, Conference on New Materials in Concrete Construction, University of Illinois at Chicago Circle, Chicago 1971

PUBLICATIONS
Refereed Articles

2014

Under review

- “Effect of nano-kaolinite clay on rebar corrosion and bond behavior between rebar and concrete”, *Cement and Concrete Research*, submitted May 2014, (with Yingfang Fan, Shiyi Zhang, Ningning Li)
- “Application of nanomechanical methods in investigation of nanoSiO₂ on C-S-H gel/cement grain interface”, *Cement and Concrete Composites*, submitted June 2014, (with Jing Xu, David J Corr)
- “Effects of kaolinite clay on the behavior of cement mortar exposed to acid deposit”, *ASCE's Journal of Materials in Civil Engineering*, (with Yingfang Fan, Shiyi Zhang and Qi Wang)

Published

- “Experimental Investigation on Quantitative Nanomechanical Properties of Cement Paste”, *ACI Materials Journal*, Vol. 111, Issue no. 1-6, December – January 2014. (with Wengui Li, Jianzhuang Xiao, Shiho Kawashima, Gajendra S. Shekhawat)
- “Influence of kaolinite clay on the chloride diffusion property of cement-based materials.” *Cement and Concrete Composites*, 45(0), 117–124. (with Fan, Y., Zhang, S., Kawashima, S.)
- Hou, P., Cheng, X., Qian, J., and Shah, S. P. (2014). “Effects and mechanisms of surface treatment of hardened cement-based materials with colloidal nanoSiO₂ and its precursor.” *Construction and Building Materials*, 53(0), 66–73.
- “Influence of purified attapulgite clays on the adhesive properties of cement pastes as measured by the tack test.” *Cement and Concrete Composites*, 48(0), 35–41. (with Kawashima, S., Chaouche, M., Corr, D. J).
- “Experimental study of filling capacity of self-compacting concrete and its influence on the properties of rock-filled concrete.” *Cement and Concrete Research*, 56(0), 121–128. (with Xie, Y., Corr, D. J., Chaouche, M., Jin, F)
- “Ultrasonic monitoring of the setting of cement-based materials: Frequency dependence.” *Construction and Building Materials*, 65(0), 518–525. (with Yim, H. J., Kim, J. H).
- “Dispersion of CaCO₃ nanoparticles by sonication and surfactant treatment for application in fly ash cement systems”, *Materials and Structures*, Vol. 47, Issue 6, pp1011-1023. (with Kawashima, Shiho and Seo, Jung-Woo, Ted, Corr, David and Hersam, Mark C)

2013

- “Effects of interfacial transition zones on the stress–strain behavior of modeled recycled aggregate concrete.” *Cement and Concrete Research*, 52(0), 82–99. (with Xiao, J., Li, W., Corr, D. J)
- "Rate of thixotropic rebuilding of cement pastes modified with highly purified attapulgite clays", *Cement and Concrete Research*, Vol 53, November 2013, pp 112–118 (with S. Kawashima, M. Chaouche, D.J. Corr)
- "Cement particle flocculation and breakage monitoring under Couette flow", *Cement and Concrete Research*, Vol. 53, November 2013, pp 36–43 (with H.J. Yim and J.H. Kim)
- “A novel evidence for the formation of semi-permeable membrane surrounding the Portland cement particles during the induction period”, *Journal of Thermal Analysis and Calorimetry*, Vol 113, Issue 2,

- pp 881-884, 2013. (with Hou, Pengkun and Kong, Deyu and Kawashima, Shiho and Qian, Jueshi and Corr, David J).
- “Aggregation and Breakage Kinetics of Fresh Cement Paste”, *Cement and Concrete Research*, Vol. 50, August 2013, pp 1-10 (with R.D. Ferron, E. Fuente, C. Negro)
- “Carbon Nanofiber Cementitious Composites: Effect of Debulking Procedure on Dispersion and Reinforcing Efficiency”, *Cement and Concrete Composites*, Vol. 36, Special issue: Nanotechnology in Construction, February 2013, pp 25-32 (with Z.S. Metaxa, M.S. Konsta-Gdoutos)
- “Preface to special issue on: Nanotechnology in construction”, *Cement and Concrete Composites*, Vol 36, Special issue: Nanotechnology in Construction, February 2013, pp 1-2 (with M.S. Konsta-Gdoutos)
- “Modification Effects of Colloidal NanoSiO₂ on Cement Hydration and Its Gel Property,” *Composites Part B: Engineering*, Vol. 45, No. 1, February 2013, pp. 440-448 (with P. Hou, S. Kawashima, D. Kong, and D. Corr)
- “Modification of Cement-based Materials with Nanoparticles”, *Cement and Concrete Composites*, Vol 36, Special issue: Nanotechnology in Construction, February 2013, pp 8-15 (with S. Kawashima, P. Hou, and D. Corr)
- "Simulation study on the stress distribution in modeled recycled aggregate concrete under uniaxial compression," Accepted by ASCE *J. Materials in Civ. Eng.*, (with J. Xiao, W. Li, and D.J. Corr)
- "Crack Propagation in Recycled Aggregate Concrete under Uniaxial Compressive Loading, accepted by *ACI materials Journal*, (J. Xiao, W. Li, and Z. Sun)
- “Properties of Interfacial Transition Zones in Recycled Aggregate Concrete Tested by Nanoindentation”, *Cement & Concrete Composites*, Vol. 37, January 2013, pp 276–292 (with J. Xiao, W. Li, Z. Sun, D.A. Lange)
- “Influence of nano-silica agglomeration on fresh properties of cement pastes.” *Construction and Building Materials*, 43(0), 557–562. (with Kong, D., Su, Y., Du, X., Yang, Y., Wei, S.)
- “Effect of low dosages of waste {GRP} dust on fresh and hardened properties of mortars: Part 1.” *Construction and Building Materials*, 47(0), 1532–1538. (with Tittarelli, F)

2012

- “Effects of Colloidal NanoSiO₂ on Fly Ash Hydration,” *Cement and Concrete Composites* 34 (2012) 1095–1103 (with P. Hou, K. Wang, J. Qian, S. Kawashima, and D. Kong)
- “Fresh concrete and its significance for sustainability”, *Journal of Sustainable Cement-Based Materials*, Vol. 1, Nos. 1–2, March–June 2012, pp 16–23 (with J.H. Kim, R.P. Ferron)
- “Effects of Colloidal Nanosilica on Rheological and Mechanical Properties of Fly Ash-Cement Mortar,” *Cement and Concrete Composites*, Vol. 34, No. 10, November 2012, pp. 1095-1103 (with P. Hou, S. Kawashima, K. Wang, D. Corr, and J. Qian)
- “Study of the Mechanisms Underlying the Fresh-state Response of Cementitious Materials Modified with Nanoclays,” *Construction and Building Materials*, Vol. 36, November 2012, pp. 749-757 (with S. Kawashima, J.H. Kim, and D. Corr)
- “Interfacial Transition Zones in Recycled Aggregate Concrete with Different Mixing Approaches,” *Construction and Building Materials*, Vol. 35, October 2012, pp. 1045-1055 (with W. Li, J. Xiao, Z. Sun, and S. Kawashima)

“On the identification of rheological properties of cement suspensions: Rheometry, Computational Fluid Dynamics modeling and field test measurements,” *Cement and Concrete Research*, Vol. 42, No. 8, August 2012, pp. 1134-1146 (with L. Ferrara, M. Cremonesi, N. Tregger, and A. Frangi)

"Highly Concentrated Carbon Nanotube Admixture for Nano-Fiber Reinforced Cementitious Materials", *Cement & Concrete Composites*, Vol. 34, No. 5, May 2012, pp. 612-617 (Z.S. Metaxa, J-W. T. Seo, M.S. Konsta-Gdoutos, and M.C. Hersam)

2011

“Influence of Clays on the Shrinkage and Cracking Tendency of SCC,” *Cement and Concrete Composites*, Vol. 34, No. 4, April 2012, pp. 478-485 (with X. Gao, S. Kawashima, and X. Liu)

“Correlating Dynamic Segregation of Self-Consolidating Concrete to the Slump-Flow Test,” *Construction and Building Materials*, Vol. 28, No. 1, March 2012, pp. 499-505 (with N. Tregger, A. Gregori, and L. Ferrara)

“Guidelines for Design, Testing, Production and Construction of Semi-Flowable Self-Consolidating Concrete for Slip-Form Paving,” *International Journal of Pavement Engineering*, Taylor & Francis, DOI: 10.1080/10298436.2011.610797, Sept 2011, pp. 1-10 (with G. Lomboy, K. Wang, and P. Taylor)

“Early-Age Autogenous and Drying Shrinkage Behavior of Cellulose Fiber-Reinforced Cementitious Materials,” *Cement and Concrete Composites*, Vol. 33, No. 2, February 2011, pp. 201-208 (with S. Kawashima)

“Effect of Wall Friction on Variation of Formwork Pressure Over Time in Self-Consolidating Concrete,” *Cement and Concrete Research*, Vol. 41, No. 1, January 2011, pp. 90-101 (with S.H. Kwon, Q.T. Phung, H.Y. Park, and J.H. Kim)

“Simple Analytical Model for Formwork Design of Self-Consolidating Concrete,” *ACI Materials Journal*, Vol. 108, No. 1, January 2011, pp. 38-45 (with J.H. Kim, M. Beacraft, and S.H. Kwon)

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)

“Artificial Neural Network Modeling of Early Age Dynamic Young’s Modulus of Normal Concrete,” *ACI Materials Journal*, Vol. 107, No. 3, May-June, 2010, pp. 282-291 (with G. Venkateela, A. Gregori, and Z. Sun)

“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, May 2010, 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)
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- “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
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- “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
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- “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)

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