



Dr. Michael D. A. Thomas, P.Eng.

Summary

Dr. Michael Thomas is a Professor of Civil Engineering at the University of New Brunswick. He specializes in Construction Materials and Infrastructure Repair.

Education:

- B.Sc. Civil Engineering, University of Nottingham, 1982
- PGCE Teaching Certificate, University of Nottingham, 1983
- Ph.D. Civil Engineering, University of Aston, 1987

Current Research Interests:

- Durability of cement and concrete materials, alkali-silica reaction (ASR), alkali-silica reaction (ASR), alkali-carbonate reaction (ACR), chloride ingress and corrosion of steel, delayed ettringite formation, sulfate attack, use of pozzolans, slag and other industrial by products.
- Repair of concrete, use of fibre-reinforced plastics, use of lithium for ASR control,
- Service-life prediction and life cycle analysis of concrete structures (co-author of Life-365)

Service

- Associate Editor of Canadian Journal of Civil Engineering
- Technical Committee Membership, American Concrete Institute (ACI),
- American Society of Testing and Materials (ASTM)
- Canadian Standards Association (CSA)
- Réunion Internationale des Laboratoires d'Essais et de recherche sur les Matériaux et les Constructions (RILEM)

Awards

- Fellow of the American Concrete Institute, 2006 Engineering Foundation Endowed Lectureship 2001 (University of Texas).
- American Concrete Institute Construction Practice Award for 2000.
- Thomas Barton Award, October 1997 (Best Paper).
- American Concrete Institute Wason Medal for 1996.
- Winner of 1993 Director's Fund Competition, Ontario Hydro.
- CEGB Research Fellowship, Imperial College, London, U.K. Institution of Civil Engineers (U.K.) Thomas Telford Premium, 1989.

Selected Presentations and Journal Articles, 1997-2007 (from more than 150)

- Thomas, M.D.A. "Are the Codes Sufficient to Ensure Durable Concrete." ACI Spring Convention, *123 Forum: Is This Concrete Durable Enough?*, April 2007.
- Thomas, M.D.A. and Folliard, K.J. One-day course on *Chemical Admixtures* for Roanoke Cement, March 2007
- Thomas, M.D.A. and Folliard, K.J. Three-day course on *Chemical Admixtures and Alkali-Aggregate Reaction* for Lafarge North America, March 2007
- Thomas, M.D.A. "Methods for Mitigation Alkali-Silica Reaction". ACPA Northwest Paving Seminar, Couer D'Alene, Idaho, March 2007.
- Thomas, M.D.A. "Concrete Gone Wild." Ready-Mixed Concrete Association of Ontario, *Concrete College*, Feb 2007.
- Thomas, M.D.A. "Who cares about Coulombs anyway?" ACI Atlantic Chapter and APRMCA Joint AGM and Annual Conference, St John, Feb 2007.
- Thomas, M.D.A. "Lithium Treatment of ASR-Affected Concrete", Transportation Research Board *Annual Meeting*, Jan 2007.
- Thomas, M.D.A. "Chloride Diffusion Coefficients: Are they useful and what do they mean?" Anna Maria Workshop VII *Sustainability in the Cement & Concrete Industry*, Oct 2006.
- Thomas, M.D.A. and Folliard, K.J. Two-day course on *Chemical Admixtures* for Lafarge North America, September 2006.
- Thomas, M.D.A. "High-Volume Fly Ash Concrete in Green Buildings." Engineering Foundation Conference on *Sustainability in the Cement and Concrete Industry*, Davos, Switzerland, July 2006
- Thomas, M.D.A. Two-day course on *Blended Cements* for Lafarge North America, April 2006.
- Thomas, M.D.A. Presentations on "Chlorides & Corrosion", "ASR", and "Sulfate Attack." Portland Cement Association, Course on Ternary Cement Blends, Skokie, March. 2007.
- Thomas, M.D.A. ACI Atlantic Chapter, Annual Conference, Halifax, Feb 2006.
- Thomas, M.D.A. "Supplementary Cementing Materials: Benefits and Limitations." CIRCA Seminar on Responsible Use of SCM's in Performance-Based Specifications: Vancouver, Jan. 2006; Winnipeg, Jan 2006; Montreal, March 2006
- Thomas, M.D.A. Presentations on "Fly Ash", "Slag", and "Durability of Concrete containing Supplementary Cementing Materials." Portland Cement Association, Regional Technical Program: Seattle, Oct. 2005; Charlotte, Oct 2006
- Thomas, M.D.A. "Influence of chloride thresholds on the service life of concrete structures." National Association of Corrosion Engineers Conference, Halifax, Sept 2005.
- Thomas, M.D.A. Courses on (i) Chemical Admixtures and (ii) Chloride Ingress & Corrosion for ACBM/PCA Undergraduate Faculty Enhancement Workshop, Chicago, June 2005.
- Thomas, M.D.A. "High-Performance Concrete Using Ternary Cement." Seminar organized by Elkem Materials: Jeju Island, S. Korea, Oct. 2005; Bangkok, June 2005; Hanoi, June 2005

- Thomas, M.D.A. "Blended Cements." International Cement Microscopy Association Seminar, Victoria, BC
- Thomas, M.D.A. "Achieving 100-Year Service Life with Multiple Protection Strategies." ACI Spring Convention, New York City, April 2005.
- Thomas, M.D.A. "Field Validation of Life-365." ACI Spring Convention, New York City, April 2005.
- Thomas, M.D.A. "Test Methods for Evaluating the Efficacy of ASR Prevention Strategies." International Center for Aggregates Research Annual Meeting, Austin, TX, April 2005.
- Thomas, M.D.A. "Durability of Slag Cement Concrete." Seminar organized by the Slag Cement Association, Cleveland, OH, Feb. 2005
- Thomas, M.D.A. "Supplementary Cementing Materials: Benefits and Limitations." CIRCA Seminar on Responsible Use of SCM's in Performance-Based Specifications: Calgary, Feb. 2005; Edmonton, Feb 2005