



**R. D. Hooton**  
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## **Summary**

R.D. Hooton is a Professor of Civil Engineering at the University of Toronto.

Before joining the University in 1986, he was a research Engineer at Ontario Hydro's Research Division in Toronto. He is a Fellow of ACI, ASTM, and ACerS as well as being an honorary member of both ASTM Committees C01 on Cements and ASTM C09 on Concrete. He has also received the Award of Merit from both CSA (1998) and ASTM (2003).

His research is focused on the properties and performance of cements and supplementary cementing materials such as fly ash, slag, and silica fume, as well as on fluid transport (permeability) properties of concrete, and the durability, service life, and performance testing of concrete to various aggressive environments, such as chlorides, sulphates, freezing, and alkali-aggregate attack.

He is, or has recently been, Chair of several standards committees including ASTM C09 on Concrete and Concrete Aggregates, ASTM C09.66 on Resistance to Fluid Penetration, ASTM C01.31 on Volume Change of Cements, CSA Committee A3000 on Hydraulic Cements, CSA A23.5 on Supplementary Cementing Materials, and ACI C201C on Sulfate Resistance. He also chairs a newly formed joint ASTM subcommittee C01.48/C09.48, 'Paste System Performance', dealing with cement-admixture compatibility issues.

He recently completed a report, together with John Bickley and Ken Hover, for the RMC Research Foundation on Performance-Based Specifications.

## **Publications**

### **Book Chapters or Book Editor**

- Hearn, N., Hooton, R.D. and Nokken, M.R., "Pore Structure and Permeability", Chapter in Significance of Tests and Properties of Concrete and Concrete Making Materials, ASTM STP169D, May 2006
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- Hooton, R.D., Co-Editor (with P. Klieger), Carbonate Additions to Cement, ASTM STP 1064, 1990.
- Hooton, R.D., "The Reactivity and Hydration Products of Blast-Furnace Slag", Chapter in Supplementary Cementing Materials, editor, V.M. Malhotra, CANMET 1987, pp. 247-288 (also translated into French, 1991)

### **Other Journal Articles**

- Stanish, K. Hooton, R.D., and Thomas, M.D.A., "The Rapid Migration Test for HPC", HPC Bridge Views, No.37, Jan./Feb. 2005, p.3.
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- Hooton, R.D., Nagi, M.A., Ozyildirim, H.C., "The Rapid Chloride Permeability Test", HPC Bridge Views, No.12, Nov./Dec. 2000, pp.2-4.

### **Selected Refereed Journal Articles (of more than 70 articles)**

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- Rebel, W., Detwiler, R.J., Gebler, S.H. and Hooton, R.D., "The Right Sulfate Test Makes a Difference",
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- Ramlochan, T., Hooton, R.D and. Thomas, M.D.A., "The Effect of Pozzolans and Slag on the Expansion of Mortars Cured at Elevated Temperature, Part II: Microstructural and Microchemical Investigations", Cement and Concrete Research, Vol.34, No.8, 2004, pp.1341-1356.
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- Brown, P.W., Hooton, R.D., and Clark B.A., "Microstructural Changes in Concretes With Sulfate Exposure", Cement and Concrete Composites, Vol.26, 2004, pp. 993-999.
- Boddy, A., Hooton, R.D. and Thomas, M.D.A., "The Effect of Silica Content of Silica Fume on its Ability to Control Alkali-Silica Reaction", Cement and Concrete Research, Vol. 33, 2003, pp. 1263-1268.

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- Hooton, R.D., "Are Sulfate Resistance Standards Adequate?" Material Science of Concrete: Sulfate Attack Mechanisms, A. Cer. S. 1999, pp. 357-366.
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- Hooton, R.D., "Recent Developments of Standard Test Methods for Measuring the Fluid Penetration Resistance of Concrete and Use in Performance Standards", Proceedings, Knut Hojgaard Foundation Conference on Advanced Cement Based Materials: Research and Teaching, Danish Technical University, June 13-15, 2005 (CD Proceedings).
- Hooton, R.D., "Issues Related to Recent Developments in Service Life Specifications for Concrete Structures", Supplemental Proceedings, Second CANMET/ACI International Symposium on Advances in Concrete Technology, Las Vegas, June 11-14, 1995, pp. 85-98.
- Hooton, R.D., "Concrete Permeability and the Search for the Holy Grail", Proceedings of the First Canadian Symposium on Cement and Concrete, Quebec City, Aug. 9-11, 1989, 10 pp.