



Sidney Mindess, P.Eng., Ph.D.

Summary

Sidney Mindess completed his Civil Engineering degree from the University of Manitoba in 1965, and subsequently received his Ph.D. from Stanford University. Since 1969, he has been a member of the Department of Civil Engineering, University of British Columbia, where he is now a Professor Emeritus.

He has co-authored 6 books and over 250 technical papers, dealing primarily with the mechanical properties of cement and concrete. His particular fields of research include high performance concrete, fibre reinforced concrete, and the behaviour of concrete under impact loading.

He is involved in the technical activities of the American Concrete Institute, American Society of Testing and Materials, and RILEM. He is on the editorial boards of 3 technical journals. He is also a Fellow of the American Concrete Institute, the Canadian Society of Civil Engineers, RILEM, and the American Ceramic Society. His consulting activities have dealt primarily with the durability of concrete, and the assessment of the properties of concrete in existing structures.

Education

- B.Sc., University of Manitoba
- M.S. Civil Engineering, Stanford University
- Ph.D. Civil Engineering, Stanford University

Appointments, Awards and Affiliations (current and past)

- Fellow, American Concrete Institute; Committee 446 - Fracture Mechanics; Committee 370 - Dynamic and Vibratory Loads
- American Society for Testing & Materials; Com. C-9 - Concrete & Concrete Aggregates
- RILEM, Member Committee 50 - FMC - Fracture Mechanics of Concrete, Com. 89-FMT - Fracture Mechanics Test Methods; TC108 - Bond in Concrete
- RILEM: Member of Coordinating Com., from 1993
- Fellow, American Ceramic Society; Chairman
- Association of Professional Engineers of B.C. (on Board of Examiners, 1977-90)
- International Fibrous Concrete Institute - President, 1989-90
- Editorial Board, International Journal of Cement Composites & Lightweight Concrete, 1983-1986
- Editorial Advisory Board, Advances in Cement Research, from June 1987
- Editorial Advisory Board, ASCE Journal of Materials in Civil Engineering, from 1988; Associate Editor, 1990-1995

- Co-editor, *Advances in Concrete Technology* a book series published by Elsevier Science Publishers, U.K
- Editorial Board, *Cement & Concrete Research*, from 1993
- Board of Advisors, *Materials & Structures (RILEM)*, from 1994
- Editorial Board, *Materials & Structures (RILEM)* from 1997
- Board of Editors, *Cement Wapno Beton (Poland)*

Selected Publications (from more than 6 books and 250 technical papers)

- S. Mindess and J.F. Young, *Concrete*, Prentice-Hall, Englewood Cliffs, NJ, 1981, 671 pages, Chinese translation published in 1989
- A. Bentur and S. Mindess, *Fibre Reinforced Cementitious Materials*, Elsevier Science Publishers, U.K., January 1990, 449 pp.
- J.F. Young, S. Mindess, R.J. Gray and A. Bentur, *The Science and Technology of Civil Engineering Materials*, Prentice-Hall, New Jersey, 1998, 384 pp.
- S. Mindess, J.F. Young and D. Darwin, *Concrete*, 2nd edition, Prentice-Hall, 2003, 644 pp. Chinese translation published by Pearson Education Asia LTD and Chemical Industry Press, 2004.
- M. Alexander and S. Mindess, *Aggregates in Concrete*, Taylor & Francis, 2005, 435pp.
- S. Mindess, "Compressive Strength: The Wrong Way to Assess Concrete", in J. Skalny, S. Mindess and A. Boyd (eds.), *Concrete Technology*, The American Ceramic Society, pp. 3-19, 2005
- S. Mindess, "High Performance Concrete: Where Do We Go from Here?," pp. 15-23 in A. M. Brandt, V.C. Li and I. H. Marshall (eds.), *Brittle matrix Composites 8*, Woodhead Publishing Limited / Zturek Research-Scientific Institute, Cambridge and Warsaw, 2006
- A.J. Boyd, S. Mindess and J. Skalny, "Designing Concrete for Durability/Diseno de hormigon durable," *Materiales de Construccion (Spain)*, Vol.51, No.263-264, pp. 37-53, 2001.
- N. Banthia, A. Biparva and S. Mindess, "Permeability of Concrete under Stress", *Cement and Concrete Research*, Vol. 35, No. 9, pp. 1651-1655, 2005.
- N. Banthia, R. Gupta and S. Mindess, "Development of Fiber Reinforced Concrete Repair Materials," *Canadian Journal of Civil Engineering*, Vol. 33, pp. 126-133, 2006.
- R. D. Hooton, S. Mindess, J.-C. Roumain and A. J. Boyd, "Materials Selection, Proportioning, Testing, and Standards for Concrete Durability," *Concrete International*, 2006
- M. Nehdi, S. Mindess and P.C. Aitcin, *Rheology of High-Performance Concrete: Effect of Ultra-Fine Particles*, *Cement and Concrete Research*, Vol. 28, No. 5, pp. 687-697 (1998)
- S. Mindess, R.J. Gray and J.P. Skalny, "Effect of Condensed Silica Fume Additions on the Permeability of Hydrated Portland Cement Paste and the Cement-Aggregate Interface," *Proc., ACI-RILEM Symp. on Technology of Concrete When Pozzolans, Slags and Chemical Admixtures are Used*, Monterey, Mexico, March 1985, pp. 121-142.