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Editorial

## Fall 2000 Materials Research Society Symposium on the Materials Science of High-Performance Concrete

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Over the past decades, the technology of concrete has undergone major developments. The introduction of new admixtures (such as superplasticizers and more recently shrinkage-reducing chemicals), the use of supplementary-cementing materials and the elaboration of new and more complex mixture design methods have largely contributed to modifying the way concrete is produced and placed. In many respects, concrete has gone from a low-tech and common product to a more sophisticated material with superior mechanical properties and improved durability.

The 2000 Materials Research Society Symposium was entirely devoted to the "Materials Science of High-Performance Concrete." The 3-day meeting held in Boston, MA, November 28–30, included over 40 presentations, of which eight were invited contributions. The organizers of the meeting were Mette Geiker (Technical University of Denmark), Dale P. Bentz (National Institute of Standards and Technology), David Lange (University of Illinois) and Jacques Marchand (Laval University).

Papers covering 15 of the talks are included in this special issue of *Cement and Concrete Research*. These written contributions address a wide array of themes, including

microstructure, shrinkage, transport, durability and mixture design. These papers are representative of the diversity of topics discussed during the symposium.

The 15 papers contained in this issue also reflect the high quality of the research effort devoted nowadays to the fundamental properties of hydrated cement systems in general and high-performance concrete in particular. For instance, many of the contributions included in this issue are typical examples of the fruitful and simultaneous application of theoretical and experimental techniques to the investigation of the properties of concrete.

The various contributions included in this special issue of *Cement and Concrete Research* also clearly emphasize the fact that research on hydrated cement systems is truly the fruit of an international effort. As can be seen, this volume contains papers from more than seven different countries.

We hope that you will enjoy this special volume of *Cement and Concrete Research*. We would also like to remind you that each of these 15 papers has gone through the usual review process of the journal.

The organizers of the meeting.

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