

News and events

April 1989, San Diego, California, USA **Materials problems of the infrastructure: how new materials technology can solve them**

The Materials Research Society is holding a two-day symposium on this topic as part of its 1989 Spring Meeting. A recent National Academy report (Infrastructure for the 21st Century) stated that the deterioration of highways, bridges, runways, etc., in the USA has reached the point where an annual expenditure of close to \$100 billion on public works is not solving the problem. It goes on to advocate the application of new materials technologies to ensure that when repairs, replacements or new structures are built, their deterioration rates are minimized. Materials of interest include concretes, asphalts, metals, and composites. Non-destructive evaluation and real-time monitoring with sensors are of importance.

In an effort to stimulate innovative research on highway engineering, the US Congress created the Strategic Highway Research Program (SHRP) with a budget of \$150 million over a five-year period. SHRP is managed by the National Research Council and funds research in six areas: asphalt, pavement performance, maintenance, protection of bridge components, cement and concrete, and snow and ice removal. To date, proposals have been numerous from the civil engineering research community and sparse from the materials community. One aim of this symposium is to encourage more research proposals on materials. Some of these will build on existing research efforts on new and improved materials, such as polymer impregnated concretes which are already in use but offer scope for further improvement. There have also been considerable efforts to reduce the corrosion of steels used in rebars and bridge structures due especially to salt used for snow and ice removal. Nevertheless, the symposium will show that this is a fertile field of research on a nationally important problem which is likely to attract increased funding in the future.

The meeting will consist of an opening session on the nature of the problem, followed by sessions of nonmetallic materials, metallic materials, NDE and sensing systems.

The closing date for submission of abstracts was 17 October 1988, but further information can be

obtained from the Symposium Chairs: Brian Frost, Argonne National Laboratory, 9700 South Cass Avenue, Argonne, IL 60439, USA. (312) 972-4929. Douglas McKenzie, UCLA, Department of Materials Science, Boelter Hall, 6531, Los Angeles, CA 90024, USA. (213) 825-3539. Damien Kulash, Strategic Highway Research Program, Suite 400, 818 Connecticut Avenue NW, Washington, DC 20006, USA. (202) 334-3774.

September 1989, Cardiff, UK **International conferences on fibre reinforced cements and concretes, and fracture of con- crete and rock—calls for papers**

Two international conferences are to be held 'back-to-back' in Cardiff next September:

18–20 September—Recent developments in fibre reinforced cements and concretes.

20–22 September—Recent developments on the fracture of concrete and rock.

Calls for papers for both conferences have been issued, with a closing date for submission of abstracts of 30 November 1988.

The main objective of the first Conference is to review current developments in fibre reinforced cements and concretes. The technical programme will cover: recent developments/innovation ideas; new fibres, matrices, composites; manufacture and quality control; testing; durability; fracture and mechanical properties; applications including structural applications. The Conference Chairman is Dr R. N. Swamy, Sheffield University, who is Chairman of RILEM Technical Committee 49-TFR.

The main purpose of the 'fracture' Conference is to provide an opportunity for a meeting of researchers and engineers. Contributions will be welcomed in all areas of research but particular attention will be given to the following: strain rate effects and dynamic fracture; creep and fatigue effects; mixed mode fracture; fracture process zone detection; fracture of fibre reinforced composites; damage and micromechanical modelling; fracture mechanics test methods for concrete and rock; non-destructive evaluation of fracture; environmentally assisted fracture; numerical techniques in fracture; application to design; experimental and numerical modelling of strain softening. The Con-

ference Chairmen are Professor S. P. Shah, Northwestern University, (who is also Chairman of RILEM Technical Committee 89-FMT), and Professor S. E. Schwartz, Kansas State University.

The Conference Secretary for both conferences is

Dr Ben Barr, and further details can be obtained from him at the following address: Dr B. Barr, School of Engineering, University of Wales College of Cardiff, Newport Road, Cardiff CF2 1TA, UK. Tel 0222 874000, Telex 498635.

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As a service to readers of *ACR*, the contents of the most recent issue of *Magazine of Concrete Research*, *ACR*'s sister journal, will be published in each issue. Conversely, the papers in *ACR* will be listed in *MCR*. Subscription information about the two journals and

Thomas Telford's other journals is given inside the back cover. Individual copies are also available at £13.00 UK, £20.00 overseas, from The Sales Department, Thomas Telford Ltd, Thomas Telford House, 1 Heron Quay, London E14 9XF.

TECHNICAL PAPERS

Grouted and dowelled jointed precast concrete columns: behaviour in combined bending and compression

A. KUTTAB and J. W. DOUGILL

page 131

Effect of sodium chloride and sodium hydroxide from the surrounding solution on alkali-silica reaction in mortars containing fly ash

M. KAWAMURA, K. TAKEMOTO and N. TERASHIMA

143

Heat release characteristics of concrete containing ground granulated blastfurnace slag in simulated large pours

M. J. COOLE

152

SRPC and modified concretes subjected to severe sulphuric acid attack

N. I. FATTUHI and B. P. HUGHES

159

APPARATUS AND METHODS

A repeated drop-weight impact testing apparatus for concrete

B. BARR and A. BAGHLI

167

A new gas permeameter for measuring the permeability of mortar and concrete

J. G. CABRERA and C. J. LYNDALE

177

DISCUSSION

Discussion on paper published in *Magazine of Concrete Research* No. 142

A comparative study of fracture parameters in notched concrete beams, by M. G. Alexander and G. E. Blight
Contribution by J. W. Dougill

183

BOOK REVIEWS

Manual of ready-mixed concrete. *J. D. Dewar and R. Anderson*

Supplementary cementing materials for concrete. Editor: *V. M. Malhotra*

Steel-concrete composite structures: stability and strength. Editor: *R. Narayanan*

Transactions of the Japan Concrete Institute. Vol. 9, 1987

R. A. BINNS

W. B. BUTLER

W. J. HARVEY

J. N. CLARKE

185

FORTHCOMING CONFERENCES

189