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NEWS ITEMS

Calendar of Events

Gordon Research Conference on **The Chemistry and Physics of Cement-Based Materials,** Plymouth State College, Plymouth, NH, USA. Information: Francis Young, University of Illinois, 105 S. Goodwin Ave, Urbana, IL USA. Fax: (217) 244-6917. e-mail: young@uxl.cso.uiuc.edu. **July 28-August 2, 1996**

3rd CANMET/ACI International Conference on **Concrete in a Marine Environment,** The Algonquin Hotel, St.. Andrews-by-the-Sea, New Brunswick, Canada. Information: Dr. V.M. Malhotra, CANMET, 405 Rochester St., Ottawa, Ontario, Canada K1A 0G1. Fax: (613) 922-9389. **August 4-9, 1996**

7th **Advanced Cement-Based Materials/NIST Computer Modeling Workshop,** Gaithersburg, Maryland, USA. Information: Edward J. Garboczi, National Institute of Standards and Technology, 226/B350, Gaithersburg, MD 20899 USA. Tel: (301) 975-6708; Fax: (301) 990-6891. e-mail: garbocz@enh.nist.gov. **August 5-8, 1996**

10th International Conference on **Alkali-Aggregate Reaction in Concrete,** The Regent Hotel, Melbourne, Australia. Information: Dr. S. Shayan, 10th International AAR Conference, C/-CSIRO Division of Building Construction and Engineering, PO Box 56, Highett, Victoria, Australia 3190. **August 19-23, 1996**

21st Conference on **Our World in Concrete & Structures,** Hotel New Otani, Singapore. Information: John S.Y. Tan, Conference Director, 150 Orchard Road, #07-14 Orchard Plaza, Singapore 238841. Tel: (065) 7332922; Fax: (065) 2353530. **August 26-28, 1996**

World Innovations for the 21st Century, the ACI/SCA International Conference on Sprayed Concrete and Shotcrete, Edinburgh, Scotland, UK. Information: Sprayed Concrete Association, Association House, 235 Ash Road, Aldershot, Hampshire GU12 4DD, U.K. Tel: +44 (0) 1252 21302; Fax: +44 (0) 1252 333901. **September 10-11, 1996**

ACI Convention, Hyatt Regency, New Orleans, LA. Information: Conventions and Meetings, American Concrete Institute, P.O. Box 19150, Detroit, MI 48219-0150 USA. **November 3-8, 1996**

5th NCB International Seminar on **Cement and Building Materials,** New Delhi, India. Information: The Organizing Secretary, Fifth NCB International Seminar, National Council for Cement and Building Materials, Post Box No. 3885, P 21 South Extension II, New Delhi - 110 049, India. **November 25-29, 1996**

Fall Meeting of the **Materials Research Society**, Boston, MA. Information: Merry N. Geil, Materials Research Society, 9800 McKnight Road, Pittsburgh, PA 15237-6006. Tel: (412) 367-3004, ext. 301; Fax: (412) 367-4373; E-mail: geil@mrs.org. **December 2-6, 1996**

Symposium (HH) on **Structure-Property Relationships in Hardened Cement Paste and Composites,** during the Fall Meeting of the Materials Research Society, Boston, MA. Information: Della M. Roy, 217 Materials Research Laboratory, Pennsylvania State University, University Park, PA 16802 USA. Tel: (814) 865-1196;Fax: (814) 863-7040. **December 2-6, 1996**

ACI Spring Meeting, Wrawick Hotel, Seattle, WA. Information: Conventions and Meetings, American Concrete Institute, P.O. Box 19150, Detroit, MI 48219-0150 USA. **April 6-11, 1997**

18th Biennial Conference on **Concrete 97: Concrete for the Future,** Adelaide Convention Centre, Adelaide, Australia. Information: Conference Manager, Concrete Intitute of Australia, P.O. Box 452, Hindmarsh, 5007, South Australia. Tel: (61-8) 346 9722; Fax: (61-8) 346 9215. **May 14-16, 1997**

4th CANMET/ACI International Conference on **Durability of Concrete,** Sydney Hilton Hotel, Sydney, Australia. Information: V.M. Malhotra, CANMET, 405 Rochester St., Ottawa, Ontario, Canada K1A OG1. Fax: (613) 992-9389. **August 17-22, 1997**

5th CANMET/ACI International Conference on **Superplasticizers and Other Chemical Admixtures in Concrete,** Venice, Italy. Information: V.M. Malhotra, CANMET, 405 Rochester St., Ottawa, Ontario, Canada K1A OG1. Fax: (613) 992-9389. **October 8-10, 1997**

Call for Papers

Two international meetings are being organized in Berck/Mer, France, March 19, 20 and 21, 1997, on selected topics concerning bone and biomaterials.

1) Biomaterials North Federation on biomaterials meeting, March 19, IRMS, Institut Calot, on **The Influence of the Ca/P Ratio on the Properties of Calcium Phosphate Biomaterials.**

2) Seventh meeting on **Injectable Bone and Joint Substitution Materials,** March 20 and 21, IRMS, Institut Calot. Topics include: Rheology and injectability of bone replacement materials; inorganic injectable cements based on calcium phosphates and carbonates; bone remodeling and mineralization in contact with biomaterials; osteoinduction, angiogenesis and bone formation; imaging techniques for *in vitro* and *in vivo* evaluations; experimental models for the *in vitro* evaluation of injectable biomaterials; law and clinical methodology; and implants and minimally invasive therapies: current applications for bone, cartilage, and spine.

A one-page abstract (French or English) must be submitted by September 30, 1996 to B. Langlois, IRMS, Institut Calot, 62608 Berck sur mer Cedex, France. Fax: (33) 21 89 20 21.

10th International Congress on **The Chemistry of Cement** will be held in Gothenborg, Sweden, June 2-7, 1997. The Congress intends to reflect advances in all aspects of cement science. Original papers are welcome; the following list is indicative of the coverage:

- Clinker production: New processes; low energy clinker formation; utilization of industrial by-products and wastes; application of mineralizers; modifers and activators; correlating process parameters with clinker properties; clinker structure and mineralogy.
- Portland, bended and special (e.g. high alumina) cements.
- Utilization of admixtures; water reducers, air entrainers; accelerators, retarders and polymers.
- Performance and durability of concrete and cement based systems.
- Developments in characterization techniques: Nuclear magnetic resonance (NMR); x-ray diffraction (XRD); diffraction by synchrotron radiation or neutrons; scanning electron microscopy; other techniques.

Suggestions for special topics or mini-seminars will also be considered. Send three copies of the abstract to The 10th ICC Organizer, c/o Congrex, Box 5078, S-402 22 Gothenburg, Sweden by post or courier. A preliminary fax copy may be sent (Fax: +46 31-20-36-20) but must be supplemented by plain paper copies by mail.

The scientific papers accepted for presentation will be grouped by the Scientific Committee into three categories: 1) full publication; 2) oral presentation; 3) poster presentations. The latter two categories will apprear in the printed proceedings as informative summaries, up to two pages. All published papers will be refereed.

Sixth Euroseminar on **Microscopy Applied to Building Materials** will be held June 25-27, 1997 in the Haskolabio Congress Center, Reykjavik, Iceland. The Euroseminar will focus on the following subjects: Microscopic structure of stony building materials (concrete, natural stone, cement, bricks, mortar etc.); optical and electron microscopes and preparation techniques; Image analysis, modeling and application; cement properties (grindability, burning conditions, phase characteristics, kiln performance, etc.); and environmental attack on cement based materials. Proposals for abstracts/posters of original, non-published papers should be submitted to the Organizing Committee no later than November 15, 1996. The abstracts sould be written in English with the author's name, address and affiliations on top of the page and must not exceed 250 words. The authors will be informed about acceptance of the abstracts before January 15, 1997 together with the instructions for the preparation of the final version. Final manuscripts to be published in the proceedings are requested before March 15, 1997. Send to Edda Lilja Sveinsdottir, member of the Organizing Commitee,

Icelandic Building Research Institute, Keldnaholt, IS-112 Reykjavik, Iceland. Tel: +354 554 1400; Fax: +354-554 1472; e-mail: incentiv@ismennt.is.

13th International Conference on Building Materials, Wiemar, Germany, September 24-26, 1997. By tradition, the *ibausil* conference will devote itself to two main topics: **Binders and Concrete** and **Building Materials for Masonry.** Topics for the section on Binders and Concrete include: Frost/deicing salt resistance and secondary formation of ettringite; fly-ash in binders and concrete; special cements (microcements, expansive cements, jet cements); binders and building materials on the base of calcium sulphate; and rheology of fresh mortar and fresh concrete. Topics for the section on Building Materials for masonry include brick; mortar; and natural stone.

Authors are requested to send in abstracts of their papers (not more than one page) by October 15, 1996. Each presenter may submit only one paper, but coauthorship on other papers is possible and welcome. The conference committee will decide on the acceptance of the papers and will notify the authors by December 31, 1996. The papers accepted will be published in the conference proceedings. For this purpose the complete text of the papers must be submitted to the organizing office by May 31, 1997. Send abstracts to Dr.-Ing. H.-B. Fischer, Secretary of the Organizing Committee, HAB Weimar Universität, Orgbüro der ibausil, D-99421 Weimar, Germany.

Announcing the 5th International Symposium on **Brittle Matrix Composites (BMC 5),** 13-15 October 1997, Staszic Place, Warsaw, Poland. The objective of the Symposium is to review the current status and developments on all aspects of brittle matrix composites, associated with four main groups: High strength composites; brittle polymer composites; ceramics, and cement-based materials. List of topics include: Design studies and computational methods; theoretical considerations; prediction of behaviour, durability; fracture mechanics; experimental methods and results; and applications and manufacturing processes. The program will comprise invited keynote papers and contributed oral presentations. Accepted papers will be advancing knowledge and/or technology. All papers will be published and will be available at the Symposium. Papers will be presented and discussed in English. Scientific sponsoring of the Symposium by the RILEM is expected. To receive information about BMC 5, and to indicate interest in participation, contact Professor A.M. Brandt, IFTR, Swietokrzyska 21, 00-049 Warsaw, Poland. Fax: (4822) 269815; e-mail: abrandt@ippt.gov.pl.

Announcements

The **RILEM** (International Union of Testing and Research Laboratories for Materials and Structures) Technical Committee 119 TCE, "Avoidance of Thermal Cracking in Concrete at Early Ages," is compiling the available computer programs for evalution of thermal stresses and cracking risk in a **database**. For this purpose, the Committee invites all authors and/or suppliers of such software to report the following information: The name of the computer program; the name and address of the responsible person to contact; the scope of computation; and reference objects to Prof. Dr. Mats Emborg, Technical University of Luleå, Division of Structural Engineering, S-97187 Luleå, Sweden. Tel: +46 920 91 000; Fax: +46 920 91 913; E-mail: mats.emborg@anl.luth.se. The data base is to be published in the RILEM State of The Art Report "Models and Methods for Computation of Thermal Stresses and Cracking Risks." If you want your have your program listed in international literature, please contact Prof. Emborg.

A Call for International Co-operative Research on Qualitative Identification of Clinker and Cement

The determination of cement sort and quantity in concrete is a challenging task, both scientifically and practically. Several standards exist for the quantitative determination of cement, but the qualitative determination looked nearly impossible because of the similarity of Portland Cement sorts. However, up-to-date analytical and statistical "pattern recognition" methods can help in this respect, as theoretically each clinker has a characteristic "fingerprint," which is also retained in cement and concrete.

In the author's knowledge, the only paper dealing with similar questions was published two years ago (1,2) on the identifiation of cements manufactured in New Zealand. A more extended, possibly worldwide, research in this field is desirable.

Not all elements are adequate when selecting dactylogrammaticaly relevant ones, as several aspects should be borne in mind: (i) the element should come from the main raw materials(s) (i.e. limestone and/or clay), and not from the fuel, or grinding media (this excludes V, Zn, Fe and steel making alloy elements); (ii) trace elements (not main ones) sould be present in appreciable quantities (this excludes noble metals or rare earths); (iii) there should not be elements which form volatile compounds (this excludes Cd, Tl, As, Bi, Cs); and finally, (iv) it should not form water-soluble anions, which would cause difficulties in cement sort identification in concrete (this excludes Cr, Mo, W and U). Sr, Ba, Mn, Mg, Ti and perhaps Zr remain as being dactylogrammatically relevant.

Among pattern recognition methods, both supervised and unsupervised techniques (as the k-nearest neighbor, Karhounen-Loewe transformation, dendrogram) can be used for identification.

In the author's laboratory, representative samples of all Hungarian clinker sorts have been analysed (by ICP) for their Sr, Ba, Mn contents, and Mg, Ti and Zr analyses are underway, to be followed by ICP-MS. Analytical results were evaluated by a software (home development), showing that a differentiation between clinker sorts is possible.

I should like to extend this research to an international scale. Contributors are requested to send representative clinker samples (if possible, with analysis data for the above elements, although this can be done, for the time being, even by us). The use of our software will be free in the case of clinkers. Results could be published in the form of joint papers; later even an international working group (under the auspices of RILEM, or some other body) could be organized and results discussed at a workshop.

Readers of Cement and Concrete Research and all fellow scientists are requested to paticipate in this research. Prospective contributors should contact me: Prof. Ferenc D. Tamás, H-8201 Veszprém, P.O.B. 158 (Hungary). Fax: +36 88 42 30 91; E-mail: tam043@almos.vein.hu

References

1. Goguel, R.L. and D.A. St. John, "Chemical Identification of Portland Cements in New Zealand Concretes. I. Characteristic Differences among New Zealand Cements in Minor and Trace Element Chemistry." Cement & Concrete Research 23, 59-68 (1993).
2. Goguel, R.L. and D.A. St. John, "Chemical Identification of Portland Cements in New Zealand Concretes. II. The Ca-Sr-Mn Plot in Cement Identification and the Effect of Aggregates." Cement & Concrete Research 23, 283-293 (1993).