

World of Composites

News articles and announcements of interest to the composites technical community

Call for Papers

Symposium on Composite Materials: Testing and Design

Papers are invited for the 10th Symposium on Composite Materials: Testing and Design, sponsored by ASTM Committee D-30 on High Modulus Fibers and Their Composites. The symposium will be held 24-25 April 1990 in San Francisco, CA, in conjunction with the 24-27 April standards development meetings of Committee D-30.

Papers are needed covering all aspects of composite materials and structures testing and design. Emphasis will be placed on continuous fiber reinforced composites used for structural applications. Specific topics of interest include:

- Coupon Preparation and Testing
- Data Reduction/Analysis (statistical)
- Material Specification Qualification Data
- Quality Assurance Data
- Design Allowables Data
- Data Base
- Coupon Test Methodology
- Design Application
- Structural Test Methodology
- Structural Test Data
- Durability and Damage Tolerance
- Joints and Attachments
- New Configurations
- Optimization
- Buckling
- Hygrothermal Effects
- Composite Structure Design Philosophy/Criteria
- Composite Materials/Structures Computer Programs
- NASTRAN Analysis of Composite Structures

Prospective authors are requested to submit a title, 300 to 500 word abstract, and the ASTM Paper Submittal Form by 1 Oct. 1989 to Dorothy Savini, Symposia Operations, 1916 Race Street, Philadelphia, PA 19103-1187, Telephone: (215) 299-5413. Additional paper submittal forms are available from Ms. Savini.

A Special Technical Publication (STP) based on the symposium proceedings is anticipated by ASTM. Main authors will receive a complimentary copy of the volume(s) containing their papers. The main author is the author corresponding with the ASTM publications staff. All published authors may purchase reprints of the papers at cost.

Final manuscripts for the STP based on this symposium are due by 24 Feb. 1990. This deadline will be rigidly enforced. All papers not submitted to ASTM by this deadline may be forwarded to the

appropriate ASTM journal to be considered for publication. ASTM may print and distribute accepted abstracts with the approval of the chairman.

More information is available from Symposium Chairman Glenn C. Grimes, Lockheed Aeronautical Systems Co., Dept. 72-37, ADP Division, Burbank, CA 91520, Telephone: (818) 847-2344.

Fourth European Conference on Composite Materials

The conference, entitled Fourth European Conference on Composite Materials (ECCM 4), will be held during 25-28 Sept. 1990 in Stuttgart, Federal Republic of Germany.

The ECCM 4 will deal with high-quality fiber reinforced polymer, metal and ceramic matrices and will be an international meeting for scientific, technical, and commercial exchanges in the field of new materials.

At the same time and at the same place as ECCM 4 the exhibition "Eurocomposites and New Materials" will be held in the Messe-Stuttgart.

The subject of composite materials is multidisciplinary and requires cooperation between research workers of different scientific disciplines and fields of application, often in different countries, if repetition is to be avoided and the maximum is to be drawn from the interpretation of experiments. In that way, the European Association for Composite Materials (EACM) was created in 1984.

The beginning of an European Composite network of scientific communities with the EACM playing a central linking role can be seen to have resulted from the activities of the Association.

The European Association for Composite Materials improves contacts between scientists and engineers working in the field of composites and encourages the development of industries using high-quality composite materials by organizing the series of European Conferences on Composite Materials and by publishing regularly the European Composite Letter.

Original papers of high quality are invited on all aspects of composite materials. Areas of particular interest include:

- Research and development in fibres and matrices
- Composites with polymer, metal and ceramic matrices
- Fabrication and processing
- Mechanical properties and testing (durability, fatigue, creep, environmental effect, . . .)
- Interface properties
- Design
- Analytical and computational analysis
- Structures, Development, Joints
- Nondestructive evaluation techniques

- Application/Recycling
- Long fiber reinforced thermoplastics
- Economics.

Presentations can be either oral, or in the form of a poster. The Scientific Committee will decide on the mode of presentation, but authors are invited to indicate their own preference. Intended authors are invited to write an extended abstract of about 800 words with supporting references and a maximum of two diagrams and send it to the address below. Abstracts are due 31 October 1989, and final text is due 2 May 1990.

The papers presented at the conference will be published in book form and will be available at the conference.

For further information contact: M. J. Füller, DLR, Institut für Bauweisen und Konstruktionsforschung, Pfaffenwaldring 38-40, D-7000 Stuttgart 80/Federal Republic of Germany; Tel. (0711) 68.62.444. Telex 07.255.689 (DFVS D), Fax (0711) 68.62.349.

SACMA Publishes Report on Safe Handling of Composite Materials

The Suppliers of Advanced Composite Materials Association released officially during its Fifth Annual Meeting in April 1989, a "white paper" addressing workplace hazards of advanced composite materials. The document, entitled, "*Safe Handling of Advanced Composite Materials Components: Health Information*," is not intended to replace manufacturers' material safety data sheets (MSDS), but rather to provide general background information, which will compliment the MSDS.

The white paper is comprised of six sections and begins with a general discussion of health information terminology, including

the distinction between toxicity and hazard, a comparison of acute versus chronic toxicity, as well as an explanation of LD₅₀, LC₅₀, irritation, corrosion, carcinogenicity, and mutagenicity. A discussion of TLV-TWAs, STELs, ceiling limits, and PELs is presented in a separate section of the white paper.

Recognizing that potential health hazards associated with the use of advanced composites can be controlled effectively by adherence to established industrial hygiene procedures, suggestions for administrative, engineering, operations/process, safety and personal controls are included. The remainder of the document focuses on the toxicity of a number of materials commonly used in the advanced composites industry. A general discussion of the toxic effects of each material is presented in layman terms. For materials most widely used, or those that are particularly hazardous, a more detailed discussion of the original toxicology literature (with bibliographic citations) is presented. This two-tiered approach accords the maximum amount of information in an optimally useful format. Nonetheless, readers are invited, and indeed encouraged, to provide the Association with feedback to make future editions of the white paper more complete and worker friendly.

Copies of "*Safe Handling of Advanced Composite Materials Components: Health Information*" are available from SACMA Offices. Quantities are limited. The Suppliers of Advanced Composite Materials Association is a non-profit, international trade association of free world manufacturers that produce materials used in the construction of fiber-reinforced composite finished products as well as composite parts manufacturers and other interested organizations that provide ancillary support/services to the advanced composite materials industry.

For further information: SACMA, 1600 Wilson Blvd., Suite 1008, Arlington, VA 22209; 703-841-1556; FAX: 703-841-1559.

Calendar on Composites

3-6 October 1989

4th Technical Conference, American Society of Composites
Blacksburg, VA

Contact: H. W. Hyer, Virginia Technical Dept. of Engineering
Science and Mechanics, Blacksburg, VA 24061-0219
Telephone: 703-961-5372

31 October-1 November 1989

EUROMECH 255: Thermal Effects in Fracture of Multiphase Materials

Paderborn, Federal Republic of Germany

Contact: K. P. Herrmann, Lab für Technische Mechanik, Paderborn University, Pohlweg 47-49, 4970 Paderborn, Federal Republic of Germany

6-9 November 1989

3rd Symposium on Composite Materials: Fatigue and Fracture
Orlando, FL

Contact: Dr. T. Kevin O'Brien, U.S. Army Aerostructures Directorate ARTA-AVSCOM, MS 188E, NASA Langley Research Center, Hampton, VA 23665
Telephone: 804-865-2093

10-15 December 1989

1st International Symposium on Wave Propagation in Granular Media

San Francisco, CA

Contact: Dimitrios Karamanlidis, Department of Civil Engineering, University of Rhode Island, Kingston, RI 02881
Telephone: 401-792-2783

21-23 February 1990

Verbundwerk '90, The International Congress and Exhibition on Advanced Composites

Wiesbaden, West Germany

Contact: Diana Schnabel, German Composite Society, Mainzer Landstraße 71, 6000 Frankfurt/Main 1, West Germany; FAX 69/253071

April 1990

Advances in Fatigue Lifetime Assessment Techniques

San Francisco, CA

Contact: Dorothy Savini, ASTM, 1916 Race St., Philadelphia, PA 19103
Telephone: 215-299-5413

April 1990

Rapid Mode Fracture Testing

San Francisco, CA

Contact: Dorothy Savini, ASTM, 1916 Race St.,

Philadelphia, PA 19103

Telephone: 215-299-5413

3 April 1990

Third Annual ASM International Symposium on Materials and Processes

Buffalo, NY

Contact: Chuck Lorge, Wilson Greatbatch, Ltd., 10,000 Wehrle Dr., Clarence, NY 14031; Telephone: 716-959-6901

27-30 August 1990

2nd World Congress on Computational Mechanics

Stuttgart, Federal Republic of Germany

Contact: Conference Secretary, Institute for Computer Applications, Pfaffenwaldring 27, D-7000 Stuttgart 80, Federal Republic of Germany

FAX: 0711-685-3500

November 1990

Advanced Materials/Cyclic Deformation

San Antonio, TX

Contact: Dorothy Savini, ASTM, 1916 Race St., Philadelphia, PA 19103
Telephone: 215-299-5413

November 1990

Fretting Fatigue

Contact: Dorothy Savini, ASTM, 1916 Race St., Philadelphia, PA 19103
Telephone: 215-299-5413

Summer 1991

IUTAM Symposium on Local Mechanics for Composite Materials
Blacksburg, VA

Contact: J. N. Reddy, Engineering Science and Mechanics, Virginia Tech, Blacksburg, VA 24061-0219
Telephone: 703-961-6744

29-31 May 1990

11th Annual International SAMPE Conference and Exhibition
Basle, Switzerland

Contact: Dr. Howard Hornfield, CONSULTEX SA, SAMPE CONFERENCE, CH-1261 Bogis-Bossey/VD, Switzerland

*Calendar prepared by Prof. Michael W. Hyer,
Virginia Polytechnic Institute and State
University,
Blacksburg, VA 24061.*

MAIL TO: ASTM ATTN: MEMBER SERVICES