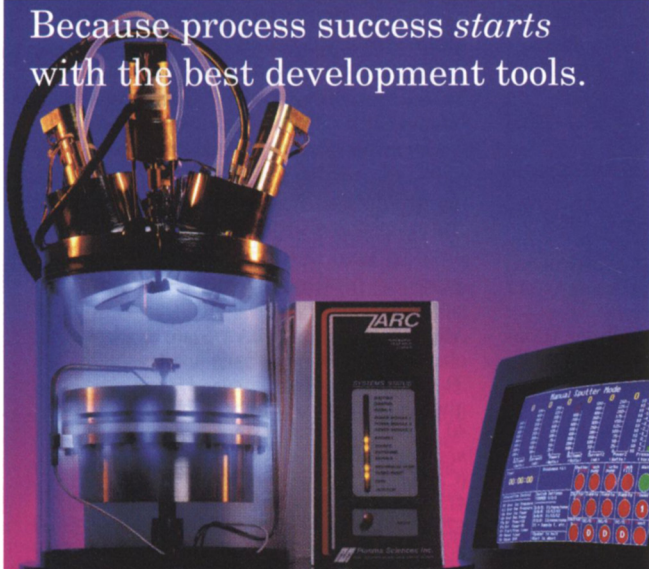


NEW ARC SPUTTERING SYSTEM FROM PLASMA SCIENCES, INC

Because process success *starts*
with the best development tools.



The most advanced table-top
sputtering system on the **market**.

The remarkable new ARC™ Sputtering System from Plasma Sciences, Inc. In R&D table-top sputtering, nothing else even comes close. The new ARC uses planar magnetron sputtering for unsurpassed versatility and superior film quality — providing process development in a surprisingly small footprint.

Its quick and easy to use. With fast deposition rates and rapid target change, the ARC is easily reconfigured for applications with a series of different depositions.

But there's more. ARCPro™ software allows effective process control of many built-in features, including a rotating stage, an integral thickness monitor, and automatic gun shuttering to eliminate cross-contamination.

Highly efficient recipe programming is fast — typically taking less than five minutes for a new process. Data storage files let you run multiple processes with no manual changes. You simply load the substrate and select the pre-set recipe: the ARC runs through an entire process cycle, without any operator programming.

See for yourself. Call today
for a video or brochure.

Plasma Sciences Inc.

7200A Telegraph Square Drive
Lorton, VA 22079
tel: (703) 550-7888
fax (703) 339-9860

Cancún Materials Agenda Spans Regional/Worldwide Topics

The IVth International Conference on Advanced Materials will be held in Cancún, México, from August 27 to September 1, 1995. The conference is hosted by the Academia Mexicana de Ciencia de Materiales and co-sponsored by the Materials Research Society and the International Union of Materials Research Societies. Miguel José Yacamán of the Instituto de Física, UNAM is the host country's meeting chair, with help from Russell R. Chianelli (USA), Marc Ledoux (France), and Long Y. Chiang (Taiwan) as co-organizers.

The conference features 31 symposia of general interest to the materials community. Some of the symposia focus on areas of particular interest to México. Others focus on topics of interest to North American countries that share borders. The latter category includes environmentally related symposia such as *Environmental Catalysis* and *Issues in Environmental Materials*. These symposia cover such areas as air quality and catalytic control of stationary and mobile emissions. Related environmental symposia—*Materials for Electric Vehicles and Fuel Cells* and *Materials for Separation with Catalysis*—deal with the latest progress and innovations that have a world, as well as regional, impact.

The conference also provides two MRS-type "first-time symposia." The first of these, *Materials Issues in Film and Recording*, covers an area of growing importance: the preservation of film and recording materials. All film and recording materials—old films as well as newer CD technology—have stability problems over extended periods of time. This symposia will cover research designed to restore and preserve these materials, as well as research aimed at providing better storage of visual, audio, and written materials. Progress in many important fields is limited by their inability to store large amounts of data. The petroleum exploration industry, for example, needs to store tremendous amounts of seismic and magnetic data, often for periods of 20 years or more. Storing this volume of information is a great challenge, using current materials and techniques.

The second "first-time symposium," *Economics and Policy in Materials Research and Processing*, will present the results of recent studies in the economics of research funding and its relation to the competitiveness of national industries. The conclusions of extensive studies have led to important and definitive changes in governmental research funding strategies, particularly in Europe. Also included in this symposium will be papers on the economics of environmentally sound manufacturing and cradle-to-grave processing.

Two symposia will focus on problems of crucial interest to México, the western United States, and the Caribbean basin. *Materials Issues in Corrosion* will cover corrosion issues that are particularly important in the industrial areas bordering the western Caribbean. The heavily industrialized coastal areas from Campeché to Vera Cruz to Galveston and New Orleans all suffer from marine corrosion conditions which cost these industries hundreds of millions of dollars annually. *Structural Materials/Earthquakes* will address materials issues that have arisen as a result of massive earthquakes which have devastated cities in both the United States and México within the past 10 years.

Several symposia center on topics of particular interest to México's key international industries: petroleum, cement,

glass, paper and pulp, and stainless steels. México's petroleum industry is particularly interested in the environmental symposia already mentioned. Since México is the world's largest producer of cement, the symposium on *Advanced Cement Materials* is expected to be especially relevant for this industry. Similar relevance is expected from three other symposia: *Materials Issues in the Glass Industry*, *Materials Science in the Paper and Pulp Industry*, and *Microalloyed Steel Materials*.

A symposium on *Nontraditional Use of Fibers* will explore novel uses of petrochemical-based fibers and nontraditional naturally occurring fibers. For example, melt-blown fabrics, which contain very small thermoplastic fibers, show promise in particulate pollution filters and other environmentally related applications. Naturally occurring cactus "spicules," small hollow fibers, show interesting potential in composite building materials. Entirely renewable and biodegradable, these fibers may provide a new environmentally friendly industry for the United States and México.

México's rich cultural heritage will also be represented at the conference. Many temples, pyramids, and buildings from México's Aztec, Mayan, and Spanish past are suffering from environmental, weathering, and earthquake damage. A symposium devoted to the *Preservation of Ancient Monuments* will explore the materials science of restoring and preserving building materials used by ancient architects. This symposium continues the tradition started in May 1994 in Cancún at the international conference on *Materials Issues in Art and Archeology*.

Following a tradition started at the 1994 MRS Spring Meeting will be a symposium on the *Materials Science of Musical Instruments of the Americas*. That Spring

Meeting introduced the materials science of making, restoring, and improving musical instruments. The 1995 Cancún conference will explore the materials science of musical instruments indigenous to the Americas. *Materials Science of Musical Instruments of the Americas* will cover steel drums of the Caribbean, guitar and stringed instrument making, and other musical instruments made by Maya, Aztecs, and other native peoples.

Unique to this conference will be a symposium on *Planetary Impact Events: Materials Response to Dynamic High Pressure*. This symposium will focus on materials science studies of meteorites which have struck the earth. Cancún, which is in the Yucatán peninsula, is a particularly appropriate site for such a symposium. In prehistoric times a huge meteorite struck the Yucatán, burying itself deep in the earth. This meteorite is the focus of theories which posit that the extinction of the dinosaurs was caused by the dust cloud created by the meteor's impact. The 1995 conference will provide some of the first information from an ongoing CONACYT-funded project to recover and study material from the buried meteorite.

IV ICAM
Cancún, México
August 27—September 1, 1995

Symposia

- Environmental Catalysis
- Issues in Environmental Materials
- Expanded Horizons in Fullerene Science and Technology
- New Imaging Techniques for Materials Study
- Microalloyed Steel Materials
- Nontraditional Use of Fibers
- Materials Science in Paper Industry
- Advanced Cement Materials

- Preservation of Ancient Monuments
- Materials for Electric Vehicles and Fuel Cells
- Biomaterialization
- Economics and Policy in Materials
- Research and Processing
- Materials Issues in Corrosion
- Preparation of Materials Via Soft Chemistry
- Materials Issues in Film and Recording
- Nanostructured Materials
- Polymers, Blends, Alloys, and Composites
- Advanced Magnetic Materials
- Opto Electronic Materials and Conjugated Polymers
- Planetary Impact Events: Materials Response to Dynamic High Pressure
- Materials for Separation with Catalysis
- Structural Materials/Earthquakes
- Materials Issues in the Glass Industry
- Applications of Synchrotron Techniques to Environmental Problems
- Liquid Crystals and Liquid Crystal Polymers
- Superplastic and Shape Memory Alloys
- Nucleation and Growth of Thin Solid Films
- Composite Ceramic Materials
- Medical Biomaterials
- Computational Techniques in Materials Science
- Materials Science of Musical Instruments of the Americas
- 2nd International Materials Education Workshop

Abstract deadline: May 31, 1995
For a copy of the call for papers or for more information, contact:

O.L. Pérez
Instituto de Física, UNAM
Apartado Postal 20-364
Delegación Alvaro Obregón
01000 México, D.F., México
Phone: (525) 622-50-33
Fax: (525) 616-15-35

Upcoming MRS Bulletin Topics:

- January 1995:** Functionally Gradient Materials
- February 1995:** Silicon-Based Ceramics, Preview Issue of the 1995 MRS Spring Meeting
- March 1995:** Materials for Musical Instruments
- Bonus Distribution:** 1995 MRS Spring Meeting