# Picraux Addresses Science Attaché's Club

The diplomatic staff posted to the embassies of most nations includes at least one, if not several, individuals trained in technical areas and assigned to handle issues and information concerning science and technology developments in the host country. Whether they are career diplomats, or persons on temporary leave from universities, industries, or government institutions at home, they have many common interests. In Washington, DC, this commonality is served by the Science Attaché's Club, which claims the membership of more than 80 S&T counsellors from about fifty embassies.

Tom Picraux, 1993 MRS president, was invited to address the Club at a luncheon meeting on April 27. Local arrangements for MRS were handled by the MRS Office of Public Affairs through its Washington Representative, Ronald L. Kelley. The Science Attaché's Club arrangements were managed by Club secretary P.M. op den Brouw (The Netherlands) and the event was hosted by the Embassy of France (France being the home country of current Club president, Claude Wolff).

Picraux's presentation was introduced by Elton N. Kaufmann, chair of the MRS Subcommittee on Public Affairs, who provided an overview of the character and importance of the field of advanced materials. Picraux then described the broad spectrum of MRS activities, the Society's growth in recent years and, in particular, the unique interdisciplinary approach MRS takes in providing services to its members and to the materials community.

Throughout, Picraux noted the strong international participation MRS enjoys in such areas as membership, the authorship and readership of *Journal of Materials Research*, and corporate support. He concluded by describing how the interdisciplinary formula has emerged in numerous places around the world in the form of new societies, and in the recent formal chartering of the International Union of Materials Research Societies. The luncheon ended with a question-and-answer session and discussion about MRS, IUMRS, and advanced materials in general.

"MRS was very pleased to have the opportunity to describe its activities to this prestigious and diverse group," Kaufmann said. "It was especially appropriate that this event took place one week before the meeting of the European MRS, thus emphasizing the truly international



MRS president Tom Picraux addresses the Science Attaché's Club in Washington, DC.

character of the MRS approach. We are grateful to the Science Attaché's Club for inviting us and wish to thank Dr. François Armanet (France) for overseeing arrangements in the Embassy of France," he concluded.

# NEW CVD Gases

# High Purity Methylsilane

First reported as a precursor for heteroepitaxial silicon carbide on silicon, methylsilane has more recently been identified as the precursor to a plasma-deposited siliconcarbon-hydrogen polymer which can be used as a dry processable photoresist for high resolution applications. Available in limited quantities with ≥ 99.9% purity.

## Deuterated Diborane and Trimethylboron

Precursors for plasma deposited Tokomak wall passivation and impurity gettering coatings, in the international effort to develop hot fusion energy.

## **Deuterated Silane**

Offered to improve the performance of silane derived silica for integrated optical waveguides.

©1993 VOLTAIX, INC.

# Other VOLTAIX Products:

(Applications)

Germane, Digermane (a-Si, heteroepi-Si)

Diborane, Phosphine (BPSG, a-Si, epi-Si)

Silane, Disilane

(a-Si, epi-Si)

Trimethylboron (BPSG, a-Si)

For more information or to place an order CALL (800) 966-VOLT

Voltaix, Inc.

197 Meister Avenue • P.O. Box 5357 • N. Branch, NJ 08876 Fax: (908) 231-9063 • Telephone: (908) 231-9060

This is an"INFOTISEMENT" from Voltaix, Inc. Your comments or questions are most welcome.

# Carnegie Commission Releases Concluding Report On Science, Technology, and Government

The Carnegie Commission on Science, Technology, and Government issued in April its concluding report, titled *Science, Technology, and Government for a Changing World*. The report calls for a transformation in the way science and technology policymaking is organized in all branches of government, with the goal of encouraging long-term economic growth, sustaining the environment, and creating and maintaining peaceful relations among nations in the post-Cold War world.

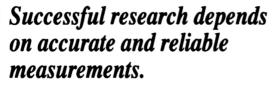
The Carnegie Commission did a longterm review of how the government should encourage and use the contributions of the national scientific community to improve the quality of decision-making. Co-chaired by William T. Golden and Joshua Lederberg, the commission carried out most of its work through task forces. Since its establishment in 1988, the commission has released about 20 reports with recommendations for the Executive Office of the President, Congress, the Judiciary, and state governments on economic performance, national security, environmental functions, K–12 math and science education, international affairs, international development, and recruitment and retention of government scientists. The concluding report consists of 15 essays by each of the work-area leaders—a mix of distinguished scientists, politicians, lawyers, industrialists, and former government officials.

Recommendations for the White House and Executive Office of the President were issued in a 1988 report. Many of these recommendations were implemented during the Bush administration and are expected to be continued during the Clinton administration; they include upgrading the status of the Science and Technology Advisor to Cabinet rank; revitalizing the Federal Coordinating Council on Science, Engineering, and Technology (FCCSET); reestablishing the President's Science Advisory Committee (now called

PCAST, the President's Council of Advisors on Science and Technology); and filling all four president-appointed associate director positions in the Office of Science and Technology Policy (OSTP).

To improve the way members of Congress receive and use scientific and technological information, the commission recommended establishing a Congressional Science and Technology Study Conference as a bipartisan legislative service organization. The commission also offered suggestions for strengthening the analytical capabilities of the four congressional support agencies: the Office of Technology Assessment, the Congressional Research Service of the Library of Congress, the General Accounting Office, and the Congressional Budget Office. In the judiciary branch, the commission recommends the establishment of an independent nongovernmental Science and Justice Council. Composed of lawyers, scientists, and others outside the judiciary, this council would initiate and monitor changes that may have an impact on the capacity of the courts to manage and

# Tools for Success in Materials Research



Applications include: evaporation, sputtering, reactive sputtering, chemical vapor deposition, plasma enhanced CVD, ion implantation, ion beam deposition.

Circle No. 12 on Reader Service Card.





**Baratron\*** capacitance manometers for pressure and vacuum measurements

- 10<sup>-5</sup> to 25,000 mmHg
- Total pressure, independent of gas composition

Mass-Flo™ mass flow meters & controllers for gases

1 sccm to 200 slm



SensaVac™ vacuum gauging

Thermocouple, Pirani,
hot filament and cold
cathode ion gauges

■ 10<sup>-10</sup> Torr to atmosphere



Six Shattuck Road Andover, MA 01810 Tel: (800) 227-8766 Fax: (508) 975-0093 © 1992 MKS Instruments, Inc.

14

adjudicate cases involving science and technology information. A centerpiece of the Task Force's efforts was the creation of a judicial reference manual that outlines techniques that judges have used for managing science and technology issues.

Whereas in the past-primarily because of national security concernsthe federal government has had the primary role in applying science and technology to national needs, the commission advises shifting that role now toward the states. It recommends that the states should be full partners with the federal government in policy deliberations and should be fully represented in advisory mechanisms and decision-making about federal science and technology institutions. States should aim to establish a national organization that can speak collectively for them and provide information on state technology activities. The commission also recommends that each state appoint both a science advisor to the governor and a science and technology advisory board to the legislature.

To promote cooperative global development, the report promotes the passage

of the Foreign Assistance Act to create a National Action Roundtable for International Development, bringing together the government, the private sector, and not-for-profit nongovernmental organizations in intersectoral coalitions to meet specific challenges.

In the economic arena, the commission says that technology policy must be clarified and strengthened and that the Department of Commerce must improve its ability to forge strong partnerships with business, labor, and universities. Sweeping changes are favored to move the United States toward a single technology base, serving both the commercial and military sectors. Such an integrated industrial base would improve defense acquisition efficiency and would remove a major impediment to defense conversion.

To improve math and science education in primary and secondary schools, the commission urged the National Science Foundation and the Department of Education to negotiate a formal agreement to coordinate their activities. Such an agreement was implemented in 1992. Also, the commission urged that all federal R&D agencies devote R&D resources to engaging the talents and resources of federal agencies whose missions depend on technically trained people.

For nongovernmental organizations in science and technology, the commission suggests they seek creative ways to focus their skills and resources through cooperative networks, coalitions, and consortia and that they promote policies to improve precollege science and math education for all citizens.

Although the analytical work of the Carnegie Commission is complete, and some of the recommendations have already been implemented, the commission will continue to disseminate its ideas and encourage implementation of the recommendations not yet in place.

The 94-page report is available through the Carnegie Commission on Science, Technology, and Government, 10 Waverly Place, 2nd Floor, New York, NY 10003; telephone (212) 998-2150; fax (212) 995-3181.

# MRS ON-SITE SHORT COURSE PROGRAM

Available for Presentation at Your Facility

Benefits you receive with the MRS On-Site Short Course Program:

# **Update** your staff

For researchers, managers, engineers, and technicians, up-to-the-minute information is essential. Are you prepared for the future?

## **Expertise**

The Materials Research Society (MRS) offers more than 70 intensive short courses that can be conducted at your facility. Topics covered include: preparation and fabrication of materials, characterization of materials, and various techniques associated with the new and advanced materials science and technology.

## **Cost-Effective and Convenient**

This program provides the most convenient, cost-effective approach to bringing courses to your facility. There are no travel costs for your staff, and time away from work is minimal.

### **Custom Design**

MRS courses can be adapted and tailored to meet the specific needs of your organization.

#### Quality

MRS instructors are acknowledged leaders in their individual fields of expertise.

To discuss the special educational needs of your organization, or to schedule a course at your facility, contact: MRS SHORT COURSE MANAGER, Vivienne Harwood Mattox, Telephone (505) 294-9532, Fax (505) 298-7942.

MRS BULLETIN/JUNE 1993 15