

K.C. Taylor Assumes Duties as 1987 MRS President

Kathleen C. Taylor assumed the post of MRS President on January 1, 1987 and will lead the Society for the 1987 calendar year. Taylor has been active in MRS since the mid-1970s, serving as meeting chair for the 1979 MRS Annual Meeting and as symposium organizer for that year's symposium on Catalyst Preparation and Maintenance of Catalyst Activity. Taylor was instrumental in maintaining the sound financial operation of the Society during a period of very rapid evolution and growth. She served as Treasurer for five years (1980-1984), Councillor for five years (1978-1979 and 1983-1985), 1985 Second Vice President, and 1986 First Vice President. She also established the MRS Graduate Student Award Program in 1980 and served on the Select Committee for Establishment of MRS Headquarters.

In addition to her MRS activities, she has held numerous positions with the American Chemical Society and the Michigan Catalysis Society. She is a member of the Air Pollution Control Association and the Society of Automotive Engineers and serves on the advisory board of *Environmental Science and Technology*. Taylor is a member of various committees, including the National Research Council's Committee on Toxicology of the Commission on Life Sciences, the National Science Foundation's Materials Research Advisory Committee, the U.S. National Committee for the International Union of Pure and Applied Chemistry, and Panel 5 on Education of the national Materials Science and Engineering Study. She is the author of numerous scientific papers and is a frequently invited speaker/chair of professional scientific symposia/workshops.

Taylor, who holds a PhD in physical chemistry from Northwestern University, joined General Motors Research Laboratories in 1970, where she is currently head of the Physical Chemistry Department. She has also been head of the Environmental Science Department, and group leader and senior research chemist in the Physical Chemistry Department.

Taylor sees 1987 as a challenging year for the Society, a year in which important decisions must be weighed to maintain a careful balance of demands on resources to ensure cost-effective activities and services to the membership. *Journal of Materials Research*, rapidly growing local sections and student chapter activities, as well as cooperative efforts with international professional materials groups will provide a myriad of opportunities for the membership this year.

"Kathy's past contributions have been monumental and have greatly influenced the Society as we know it today," emphasized 1986 MRS President Gordon E. Pike.

"Her strong sense of the goals and needs of the membership will make her tenure as President a progressive one," he added. "The Executive Committee looks forward to working with her during a year which is sure to be another important period of advancement and service to the materials profession."

AIP Corporate Associates Meet at Exxon

On October 21 and 22, 1986 the Corporate Associates of the American Institute of Physics (AIP) gathered for their 28th Annual Meeting at Exxon Research and Engineering Corporation's Corporate Research Lab in Annandale, New Jersey. The meeting consisted of two technical sessions, a session on Matters of Policy, and tours in 12 separate research areas within the Exxon research facility. Prior to the tours, David Moncton highlighted Exxon's involvement in the use of synchrotron radiation and neutron scattering at major national facilities, and Brian Flannery highlighted Exxon's development of a new three-dimensional x-ray microtomography technique.

The first session, a technical session dealing with the physics of complex materials, included presentations by James Langer (University of California at Santa Barbara) on "Pattern Formation in Crystal Growth," Pierre DeGennes (College de France) on "Interface Dynamics and Wetting," David Wilkinson (Schlumberger-Doll Research) on "Multiphase Flow in Porous Media," S. Bhattacharya (Exxon) on "Dynamics of Ordered Fluids, and Charles Slichter (University of Illinois) on the "Probing of Metal Catalysts with NMR."

The second technical session comprised talks by Robert Laughlin (Lawrence Livermore National Laboratory) on the "Fractional Quantum Hall Effect," James Smith (Los Alamos National Laboratory) on "Heavy Electrons," Albert Hibbs (Jet Propulsion Laboratory) on the "Voyager II Probe of Uranus," and Walter Broecker



1986 MRS President G. Pike (right) with the new AIP Governing Board chairman, H. Frauenfelder.

(Columbia University) on the "Carbon Dioxide Greenhouse Effect."

In the session on Matters of Policy, four speakers discussed factors affecting scientific research and education. D. Alan Bromley (Yale University) discussed the "State of University Research"; Alan McClelland (E.I. duPont de Nemours & Company) spoke on "Science Education: Lessons from Music and Latin"; Donald Braben (B.P. International, Ltd.) discussed "Basic Research and Innovation"; and Shirley Malcolm (American Association for the Advancement of Science) spoke on the "Implication of the Elimination of the Undergraduate Education Degree in the Education of Science Teachers."

Additional comments on the best implementation of research in industry were included in introductory welcoming remarks by David R. Clair, president of Exxon Research and Engineering Company. The banquet on the first evening was followed by a presentation by Michael Barnsley (Georgia Institute of Technology) on "Fractal Image Encoding." And, before the final session of the event, the AIP Science Writing Award in Physics and Astronomy was presented to Donald Goldsmith (Pillsbury, Madison and Sutro) for his book *Nemesis: The Death Star*.

Since much of the content of the technical presentations can be found in the technical literature, it will not be repeated here. Some points concerning policy matters, however, are reviewed below. David Clair noted that "innovation is a long and formidable chain with many opportunities for weak links to develop." He pointed out that "technology becomes a cost reduction tool rather than an instrument for revitalization and renewal in maturing industries." Continuing, he reminded the audience that "an economic slowdown usually results in cutbacks to research and technology and to prevent this, technology needs to be a respected member of the business team before a crisis occurs." He noted the tendency in mature industries to neglect basic research and development (Exxon and Shell were acknowledged as exceptions). He described applied laboratories in industries such as the petroleum industry as "customers of the basic research labs," saying that "strong suction on the output of basic research should be provided by the applied laboratories." In addition, he noted that "ways to measure progress in basic research and communicate it in a form understandable to funders is necessary." At the conclusion of his highlights on the utilization of synchrotron and neutron facilities by Exxon, Moncton pointed out, in a manner consistent with Clair's remarks, that "we are very sensitive to the need to have this big investment pay off over the next few years."

Bromley's address dealt with the topics covered by the White House Science Coun-

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