

sification, it is especially useful for galactic structure and stellar population studies.

Morgan also developed a system of classification of the forms of galaxies, somewhat different from the better known systems based on the classification of Edwin Hubble. Morgan's system has been little used, except for his concept of cD galaxies—the most luminous, giant “dustless” galaxies near the centers of clusters of galaxies. However, in recent years, research astronomers have been finding it increasingly useful.

Morgan trained several generations of graduate students in his methods and his way of attacking scientific problems. Outside of astronomy, he had unusually wide interests and expertise, particularly in literature, art, photography, philosophy and psychoanalysis.

In all his research Morgan concentrated on what he called “the thing itself,” the direct observational data. He resisted fiercely the concept of using theoretical ideas as bases for classification systems and then attempting to make the observational data fit those ideas. Working in this meticulous morphological way he made many important, unexpected discoveries.

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James W. Corbett

James W. Corbett, Distinguished Service Professor at the University at Albany, State University of New York, died on 25 April 1994, at the age of 65.

Corbett was known for his many contributions to the understanding of defects in semiconductors and metals. His seminal book *Electron Radiation Damage in Semiconductors and Metals* (Academic, New York, 1966) summarized his early contributions and folded them masterfully into a comprehensive review of the field at that time; it remains a principal reference in this active field.

As his career progressed, Corbett expanded his research efforts to include defects resulting from neutron irradiation, ion-implant damage and various aspects of semiconductor processing. With his students and collaborators he also made innovative use of probes such as deep-level transient spectroscopy, positron annihilation and quantum mechanical cluster calculations to push forward research into the basic nature of defects. Of particular importance have been his contributions to the understanding of

the variety of vacancy aggregates that can form in silicon, the many roles of oxygen, the properties of hydrogen and the myriad technologically important interactions that can and do occur between them.

Corbett had extensive interactions with many international scientists and held visiting positions in Egypt, Georgia SSR, Russia, the former Yugoslavia, Sweden, China and France. He had served as treasurer of Science Aid for West Africa, Ghana since 1986.

Corbett received his PhD from Yale University in 1955 and then joined the General Electric research laboratories outside Schenectady, New York. He joined the physics department at the University at Albany in 1968 and later served as department chair. In 1981 he achieved the rank of Distinguished Service Professor of the State University of New York. For more than 20 years he led the university's Institute for the Study of Defects in Solids. He also founded and directed the Joint Laboratories for Advanced Materials with colleagues from Albany and Rensselaer Polytechnic Institute, in Troy, New York. He was an associate editor of the journal *Materials Letters*.

Corbett quickly became a favorite thesis adviser to a generation of graduate students at Albany. Through a combination of challenge, support and encouragement he brought out the best in his students. Young colleagues from around the world vied to work in his laboratory.

Jim Corbett was much concerned with getting undergraduate students to think analytically. Students who took the general science course in urban and environmental physics that he developed are not likely to forget their individual oral exams and the need to quantitatively defend an ecological position under the scrutiny of Dutch uncle Corbett.

Jim's health began to fail in 1991. The grace and determination with which he continued an active life of teaching, research and scholarly activity is a lesson in courage to all of us.

WALTER GIBSON

KEITH RATCLIFF

University at Albany

State University of New York

GEORGE WATKINS

Lehigh University

Bethlehem, Pennsylvania

George W. Brady

George W. Brady, an internationally recognized authority on the application of x-ray diffraction and small-angle x-ray scattering to the structure

of liquids, ions in liquids and liquid disordered systems, died suddenly on 27 June 1994.

George was born in Quebec City, Quebec, on 22 January 1920. He received his BS in chemistry from Laval University in 1942. Following three years as an officer in the Canadian artillery (he was wounded at Normandy), he completed his PhD in physical chemistry in 1949 at McGill University with Carl A. Winkler. In 1949–51, as a postdoctoral fellow at the University of Chicago, he began work on x-ray diffraction of liquids, an experimentally difficult technique that was to dominate his research career. His pioneering studies revealed shapes, cross-sectional details and spatial correlations of molecules and ions in liquids. Following a year's research fellowship at Harvard, George joined the staff of Bell Telephone Laboratories in Murray Hill, New Jersey, in 1952. His work over the next decade focused on fundamental problems in liquids, notably the structure of liquid water and the local coordination environment of ions in liquids. He developed mathematical slit desmearing methods for the small-angle diffractometer. During the 1960s he worked on the structural aspects of critical phenomena, liquid crystals and the interactions between large molecules.

By the 1970s George was changing his focus to the structural organization of biomolecules, and in 1975 he moved his lab to the Wadsworth Center of the New York State Department of Health in Albany. A paper he published in 1976 experimentally confirmed the higher superhelical order of DNA. His subsequent work expanded to include membrane structure and membrane-protein interactions in myelin. He retired in 1990. Overall, George's scientific contributions were well summarized by William O. Baker, president of Bell Labs in the 1970s: “The clarity of Brady's conclusions was a tribute to careful experimentation and sensible analysis.”

George had diverse interests beyond his science. He was intensely devoted to his family and took great pride in the accomplishments of his sons. He was a talented impressionist painter, an avid gardener and a critical judge of fine wines and French cuisine. He will be missed.

HARRY F. FRISCH

CHARLES P. SHOLES

LAWRENCE C. SNYDER

University at Albany

State University of New York

BORIS W. BATTERMAN

Cornell University

Ithaca, New York ■