

# CRYSTALLOGRAPHERS SCHEDULED TO MEET IN PITTSBURGH

The annual meeting of the American Crystallographic Association will take place this year at the University of Pittsburgh. It will run from Sunday, 9 August, to Friday, 14 August. The 50th annual Pittsburgh Diffraction Conference will be held in conjunction with the ACA meeting.

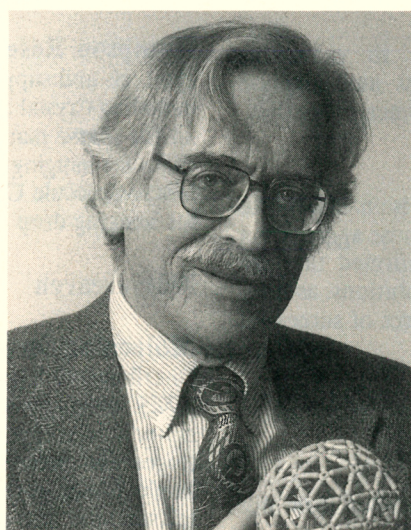
With more than 500 papers to be given, this year's meeting will be ACA's largest. The meeting will also be the first for which ACA is a regional associate of the International Union of Crystallography. For the two weeks prior to the meeting, a summer school will run at the University of Pittsburgh, for those structural crystallographers who wish to fill gaps in their educations.

Meeting sessions will cover the spectrum of crystallographic research. Session topics include amorphous materials; amorphous materials and synchrotron radiation; applied crystallography; biological macromolecules; biological macromolecules and small molecules; crystallographic computing; fiber diffraction; neutron scattering; neutron scattering and synchrotron radiation; service crystallography; small-angle scattering; small molecules; and synchrotron radiation.

On Monday morning, electron crystallography will be the subject of this year's ACA *Transactions* symposium, the proceedings of which will be published in the journal.

A special memorial session will be held for Bertram Warren of MIT on Wednesday morning. Some of his former students and colleagues will give scientific and informal talks.

Another special session, called "Talks for Teachers," will be given Wednesday morning for science



Donald L. D. Caspar

teachers from the Pittsburgh area. Among the scheduled speakers is Larry DeLucas, who will have just returned from a space shuttle mission as the first crystallographer to go into space. He will give a talk on crystal growth in microgravity.

Other special sessions will cover new or interdisciplinary topics: computing methods for crystallographic charge density research; the crystallography of modulated and composite structures; and biological liquid crystals and membrane structure.

The American Institute of Physics will run an exhibit of crystallographic equipment and products. The show hours are Monday, 4 pm to 8 pm; Tuesday, 9 am to 1 pm; Wednesday, 9 am to 8 pm; and Thursday, 9 am to 6 pm.

## Fankuchen Award

During a plenary session to open the

meeting on Monday morning, Donald L. D. Caspar of Brandeis University will receive ACA's triennial Fankuchen Award. The award goes to Caspar for his "pioneering studies of viruses and other macromolecular assemblies and for his contributions to the conceptual basis of their structure and function." Caspar was introduced to x-ray crystallography and the structure of viruses by Isidor Fankuchen of the Polytechnic Institute of Brooklyn. In the late 1950s Caspar did work on plant viruses, including tomato bushy stunt virus and tobacco mosaic virus. In 1962 he and Aaron Klug formulated the quasi-equivalence theory, which describes the structure of many viruses. Studies in Caspar's lab of polyoma virus have since shown more complex behavior than anticipated from the theory. He and other coworkers have also studied nerve myelin membranes using x-ray and neutron diffraction and gap junction membranes using direct images by electron microscopy as well as x-ray diffraction. His analysis of the diffuse background to Bragg scattering from crystalline insulin and lysozyme has demonstrated that, unlike the behavior of elastic solids, most atomic movements in proteins are correlated only over distances much smaller than the molecular size.

Caspar earned his PhD in biophysics from Yale University in 1955. He was on the biophysics faculty at Yale from 1956 to 1959. He then worked at the Children's Cancer Research Foundation in Boston and at Harvard Medical School. Since 1972 he has been professor of physics and research professor of structural biology at Brandeis. ■