

fullerenes, emphasizing the fullerenes' narrow band character, the role of vibronic coupling, and the importance of band dispersion.

*Symposium Support: ANL, Blake Industries, Lawrence Berkeley National Lab., Lawrence Livermore National Lab., ORNL.*

### Neutron Scattering in Materials Science Matures

(See *MRS Proceedings Volume 376*)

Neutron Scattering in Materials Science, Symposium BB, drew a large and international group of participants: 21 nations were represented among the presenters at 13 sessions.

On the basis of both the results described and a high attendance, neutron reflectivity has clearly undergone marked growth and maturation. The measurements derived from neutron reflectivity provide an exquisite probe of the structure of surfaces and interfaces, be these

buried within a solid or at a solid/solution interface. The power of the method derives from the large penetration depth of neutrons and the difference in scattering length between isotopes—for example, in the case of the proton and deuteron. A number of studies capitalized on the latter feature to examine phase separation of polymers and the structure of confined diblock copolymers. Scattering contrast was also the basis of results reported from small-angle neutron scattering (SANS) measurements obtained from materials as diverse as polymers, micelles, and microemulsions, as well as inorganic gels composite materials, and ceramics. Further applications of SANS appeared in a session specifically devoted to cementitious materials.

*Symposium Support: ANL, Federal Highway Adm., NIST, Neutron Scattering Soc. of America (c/o IA State Univ.).* MRS

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### Neutron Researchers Honor One of Their Own

The annual meeting of the Neutron Scattering Society of America took place as part of Symposium BB, Neutron Scattering in Materials Science. Attendees honored longtime member Cliff G. Shull (MIT), co-recipient of the 1994 Nobel Prize in Physics for his pioneering efforts in neutron diffraction, with several minutes' ovation. Shull spoke briefly about his early research at Oak Ridge National Laboratory on crystal diffraction of neutron beams, saying that he and co-worker Ernie Wallen had studied many months simply to recognize and accept the finding that neutron scattering intensities were the same no matter which compound served as the diffraction medium.

The remainder of the meeting, intended in part for prospective users of neutron scattering, featured descriptions and procedures for accessing the instrumentation at seven major neutron sources in North America. The representatives described their reactors' architecture and capabilities and provided contact information for prospective users. Each representative also warned, however, that experimental time and financial support for outside scientists is extremely limited at these facilities.

The facilities described were Brookhaven National Laboratory's HFBR, Oak Ridge's HFIR, the National Institute of Standards and Technology's NBSR, the Missouri University Research Reactor (MURR), Argonne National Laboratory's IPNS, Los Alamos National Laboratory's LANSCE, and the Canadian Institute for Neutron Scattering's NRU at Chalk River, Ontario.

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