

# Advances in Laser-Heated Diamond Cell Techniques — A Workshop in Honor of Prof. William A. Bassett

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On 25-27 May 2000, a workshop entitled “Advances in Laser Heated Diamond Cell Techniques” was held at the Advanced Photon Source (APS) in honor of Professor William A. Bassett for his pioneering contributions to this topic. This was the first workshop for advancing the laser heated diamond anvil cell technique, a crucial component of static ultrahigh pressure-temperature research. The meeting brought together 75 scientists in Earth and materials science from 8 countries.

The meeting focused on discussions of the current state of the laser heated diamond anvil cell technique and research. Leading research groups reported new developments, problems, promising new approaches, and perspectives. Some important experimental details were discussed and debated in depth. The workshop also presented a valuable educational opportunity for the student participants who comprised nearly one-fourth of the attendees.

Eleven invited talks on the first day were followed by theme discussions and poster presentations on the second day. Topics

included temperature measurement, high-pressure melting, synchrotron applications, pressure determination, temperature control, chemical reactions, sample analysis, and phase relations at high pressures and temperatures. On the third day, 39 participants were invited to perform hands-on experiments using the laser heating system at the GeoSoilEnviroCARS sector (beamline 13-ID-D) of the APS.

Thanks to all who participated in the workshop. We thank the members of the Program Committee for their help in making this a fruitful meeting. We are grateful to our sponsors, the National Science Foundation, the Center for High Pressure Research, and GeoSoilEnviroCARS. We express our gratitude to the staff of the Consortium for Advanced Radiation Sources (CARS), including Mathew Newville, Dixie Franklin, and Joy Talsma, for their invaluable contributions to this successful meeting.