

COMPRES Workshop on Current Status and Prospects for Establishing Precise and Accurate Pressure Scales at High Temperature



January 26-28, 2007, Geophysical Laboratory, Washington, DC

KEYNOTE SPEAKERS

[J. Bass](#)

[A. Dewaele](#)

[F. Datchi](#)

[A. Goncharov](#)

[W. Holzapfel](#)

[B. Li](#)

[W. Nellis](#)

N. Holmes

[H. K. Mao](#)

[K. Takemura](#)

R. Wentzcovitch

PROGRAM

PROGRAM

Jan. 27, 2007

Scientific Highlights, Session I (Discussion Leader: Russell Hemley)

8:30 AM

[Wilfried Holzapfel](#), *University of Paderborn, Germany*

"EOS simple solids for wide ranges in pressure and temperature"

9:00 AM

[W. Nellis](#), *Harvard University*

"Reduced-adiabat isotherms of metals"

9:30 AM

[Ho-kwang Mao](#), *Geophysical Laboratory*

"Three challenges of pressure calibration - 1% accuracies in 0.1-1 GPa, 100-300 GPa, and 1000-5000 K"

10:00- 10:30 AM

Coffee break

10:30 AM

[Alexander Goncharov](#), *Geophysical Laboratory*

"High pressure calibration at high temperature using cBN and fluorescence standards"

11:00 AM

[Agnes Dewaele](#), *CEA*

"Isotherms of metals by static compression: Pressurizing conditions and consequences on pressure calibration"

11:30 AM

[Peter Dorogokupets](#), *Institute of the Earth's Crust SB RAS*

"Pressure measurements at high temperature: open issues and solutions"

12:00- 1:00 PM

Coffee break

Scientific Highlights, Session II (Discussion Leader: Yingwei Fei)

1:00 PM

[Jay Bass](#), *University of Illinois*

"Redundant measurements in MgO, NaCl at high temperatures"

1:30 PM

Renata Wentzcovitch, *University of Minnesota*

"PVT relations in MgO: an ultra-high PT scale for planetary sciences applications"

2:00 PM

[Baosheng Li](#), *Mineral Physics Institute, Stony Brook*

"Elasticity..." TBD

2:30 PM

Neil C. Holmes, *Lawrence Livermore National laboratory*
"Platinum sensor" TBD

3:00- 3:30 PM

Coffee break

3:30-5:30 PM

Breakout sessions

Shock-wave (Discussion leader: Neil Holmes)

Static DAC (Discussion leader: Yingwei Fei)

Static large press (Discussion leader: Kurt Leinenweber)

Theoretical calculations (Discussion leader: Renata Wentzcovitch)

5:30-7:00 PM

Poster Session (Discussion leader: Alex Goncharov)

Jan. 28, 2007

Scientific Highlights, Session III (Discussion Leader: Jay Bass)

8:30 AM

[Frederic Datchi](#), *University of Paris*

"Optical sensors for high temperature studies in DAC: the case of cubic BN, diamond and Sm-doped SrBO"

9:00 AM

[Kenichi Takemura](#), *NIMS*

"Pressure scales and hydrostaticity"

9:30 AM

[Yuichi Akahama](#), *University of Hyogo*

"Diamond Anvil Raman Gauge as a practical pressure determination method in Multimegabar pressure Range"

10:00- 10:30 AM

Coffee break

10:30 AM -00:30 PM

Session Reports: Neil Holmes, Yingwei Fei, Kurt Leinenweber, Renata Wentzcovitch

Discussion leader: Thomas Duffy

1:30-3:30 PM

Recomendations and final remarks

3:30 PM
Adjourn