

## NOTICES

### **Gordon Research Conference Inorganic Geochemistry: Thermodynamics in Petrology August 25-29, 1975**

A. M. Cruickshank, Director, announces that a Gordon Research Conference, Inorganic Geochemistry: Thermodynamics in Petrology, will be held at Holderness School, Plymouth, New Hampshire, August 25-29, 1975.

Purpose of the Gordon Research Conferences is to stimulate research by exchange of ideas in informal week-long meetings consisting of scheduled speakers, discussion groups, and informal discussions among conference members. The programs aim to bring experts up to date on latest developments, analyze the significance of these developments, and provoke suggestions concerning the underlying theories and profitable methods of approach for further research.

#### *Monday, 25 August*

Morning: CALORIMETRY (moderator: R. A. Robie, U.S. Geological Survey)

R. A. Robie (U.S. Geol. Surv.): Measurement of heat capacity from 5-1500°K

B. Cassel (Perkin Elmer): Measurement of heat capacity and heat of transition with dynamic scanning calorimetry

B. Hemingway (U.S. Geol. Surv.): Measurement of heat of formation of silicates by aqueous solution calorimetry

A. Navrotsky (Arizona State): Molten salt reaction calorimetry at high temperatures

Evening: AQUEOUS SOLUTION STUDIES (moderator: R. M. Garrells, Northwestern)

J. W. Cobble (San Diego State): Thermodynamics of aqueous species

C. L. Christ and R. M. Siebert (U.S. Geol. Surv.): Free energy of formation of minerals from aqueous solution studies

#### *Tuesday, 26 August*

Morning: HETEROGENEOUS EQUILIBRIA (moderator: E-an Zen, U.S. Geological Survey)

G. M. Anderson (Toronto): Methods and problems in the correlation of thermochemical and phase equilibrium data

G. B. Skippen (Carleton): Extraction of thermodynamic data from heterogeneous equilibria involving gas mixtures

J. R. Wood (Johns Hopkins): Calculation of saturated salt equilibria near room temperature

Evening: CONTROLLED ACTIVITY EQUILIBRIA (moderator: H. P. Eugster, Johns Hopkins)

W. D. Gunter (U. Wyoming): Free energies of halogens derived from hydrothermal acid-base buffering experiments

G. M. Lafon (Johns Hopkins): Thermodynamics of high *P-T* reactions made simple by large scale association

T. M. Gordon (Geol. Surv. Canada): Use of correlation programs for internally consistent thermochemical data of minerals

#### *Wednesday, 27 August*

Morning: EQUATIONS OF STATE (moderator: C. Wayne Burnham, Penn. State)

E. K. Graham (Penn. State): Thermodynamic behavior of solids at high pressures and temperatures

J. W. Nicholls (Calgary): Activities of components in silicate melts

J. R. Fisher (U.S. Geol. Surv.): Equations of state for fluids; their utility and construction

Evening: MIXING PROPERTIES OF SOLUTIONS (moderator: H. J. Greenwood, Vancouver)

C. C. Stephenson (M.I.T.): Thermodynamic properties of solid solutions in the system KBr-KI

J. Grover (Cincinnati): Mixing properties of ternary crystalline solutions: Margules parameters for pyroxenes

#### *Thursday, 28 August*

Morning: CALCULATION OF EQUILIBRIA (moderator: H. C. Helgeson, Berkeley)

T. H. Brown (Vancouver): Mineral equilibria, thermodynamic data, and computers—where do we go from here?

D. L. Norton (Arizona): Thermodynamic requirements for evaluating theoretical models of heat and mass transfer in geochemical processes

Evening: SPECIAL TOPICS AND OPEN DISCUSSION (moderator: J. B. Thompson, Harvard)

M. Sato (U.S. Geol. Survey): Thermodynamic data at high temperatures by the solid-electrolyte method

#### *Friday, 29 August*

Morning and early afternoon: KINETICS AND NON-EQUILIBRIUM THERMODYNAMICS (moderators: G. W. Fisher, Johns Hopkins; A. B. Thompson, Harvard; W. S. Fyfe, Western Ontario)

G. W. Fisher (Johns Hopkins): Non-equilibrium thermodynamics in petrology

D. E. Anderson (Illinois): Intergranular diffusion in petrology

J. W. Morse (Florida State): Reaction kinetics: a review

Persons interested in attending the conference should write the director for an application. Before June 9, the address is: Dr. A. M. Cruickshank, Gordon Research Conferences, Pastore Chemical

Laboratory, University of Rhode Island, Kingston, Rhode Island 02881 (phone 401-783-4011). After June 9, write to Dr. Cruickshank at Gordon Research Conferences, Colby Women's College, New London, New Hampshire 03257 (603-526-2870).

Applications will be reviewed by a committee, and conferees selected so as to distribute attendance as widely as possible among the various institutions represented by the applicants. The fee for conferees is \$150.

### International Symposium on Geothermometry and Geobarometry October 5-10, 1975

Convener A. L. Boettcher announces that a conference titled "International Symposium on Geothermometry and Geobarometry" will be held at the Pennsylvania State University October 5-10, 1975. Other sponsors include the U.S. Geodynamics Committee, the Inter-Union Commission on Geodynamics, and the National Research Council for Geochemistry.

The symposium will consider all aspects of geothermometry and geobarometry of igneous and metamorphic rocks throughout the interior of the earth—crust, mantle, and core.

A limited amount of financial support will be available for travel expenses. The symposium fee of \$40.00 includes a dinner.

Abstracts (fewer than 250 words) should be directed to A. L. Boettcher, and should be received no later than April 30.

For further information or registration forms write to A. L. Boettcher, 210 Deike Building, Pennsylvania State University, University Park, Pennsylvania 16802.

### Nominations for Awards, Honors, and Elected Officers of MSA

Members of the Society are urged to take an active part in making nominations for the awards of the Society. Nominations with adequate documentation should be sent to the Secretary no later than May 1 for transmittal to the appropriate Committee. The nominator must be a member of the Society; the nominator's name will be withheld from the Committee. The various awards are as follows.

1. The **Roebing Medal** is the highest award of the Mineralogical Society of America for scientific eminence as represented primarily by scientific publication of outstanding original research in mineralogy. The science of mineralogy is defined broadly for purposes of the Roebing Award, and a candidate need not qualify as a mineralogist; rather his published research should be related to the mineralogical sciences and should make some outstanding contribution to them. Service to mineralogy, teaching, and administrative accomplishment are not to be considered as a primary merit for the award. The award is not restricted to Americans. Nationality, personality, age of the candidate, or place of employment shall not be considered.

2. The **Mineralogical Society of America Award** is given in recognition of an outstanding contribution within the fields of interest of the Society. The work for which the award is given must be published in a single paper or series of papers prior to the month in which the candidate's 35th birthday falls. Candidates are limited to persons who shall not have reached the age of 37 before January 1 of the year in which the award is decided upon (1975). The Award shall be made without regard to nationality, personality, or place of employment. Membership in the Mineralogical Society of America or publication in *The American Mineralogist* is not prerequisite.

3. **Fellowship** nominations are invited and forms may be obtained from the Secretary. Three members of the Society must sponsor each nominee.

4. Suggestions for nominations for all offices of the Society are welcome; documentation need not be as extensive as for the awards.

Joan R. Clark, Secretary

### McCrone Research Institute Courses in Microscopy and Crystallography for 1975 Chicago, Illinois

101	Photomicrography	June 9, October 13
104	Physical Optics for Microscopists	August 11
201	Applied Polarized Light Microscopy	June 2, October 6
203	Dispersion Staining (3 days)	May 5
204	Hot Stage Microscopy	May 19
205	Hot Stage Microscopy (correspondence course)	Anytime
206	Advanced Microscopy	July 7
301	Crystal Morphology and Optics	July 21
303	Microscopy of Liquid Crystals	May 12
402	Transmission Electron Microscopy	August 18

404	Electron Microprobe Analysis	August 4
406	Scanning Electron Microscopy	November 3
407	ESCA (Photoelectron Spectroscopy)	November 17
408	Ion Microprobe Analysis	December 1
501	Identification of Small Particles	October 20
503	Microscopy for Pharmaceutical Scientists	September 8
504	Microscopy in Criminalistics	April 28
505	Microscopy for Polymer Scientists	September 22
601	Custom-designed "on your site" courses	By arrangement

For further information, write to The Registrar, McCrone Research Institute, 2820 South Michigan Avenue, Chicago, Illinois 60616 (phone 312-842-7100).

### 1975 Meetings

<i>April</i>		5-6	Neutron Diffraction Conference, Petten, the Netherlands
29-30	Substitute Materials and Materials Processing (two-day seminar), Hershey, Pennsylvania	7-15	10th International Congress of Crystallography, Amsterdam
29	Royal Microscopical Society, Annual General Meeting, London	25-29	Gordon Research Conferences: Inorganic Geochemistry, Holderness School, Plymouth, N.H. ( <i>Am. Mineral.</i> <b>60</b> , 346); Chemistry of Molten Salts, Brewster Academy, Wolfeboro, N.H.
<i>May</i>			
3-8	American Ceramic Society, 77th Annual Meeting and Exposition, Washington, D. C.		
12	Clay Minerals Group, Mineralogical Society, London		
<i>June</i>		<i>September</i>	
5	Mineralogical Society, General Meeting, London	11-12	Symposium on Microscopy and Image Analysis, Royal Microscopical Society, University of Leicester
<i>July</i>		22-24	Science of Ceramics, 8th International Conference, St. Johns College, Cambridge
9-11	Symposium on Autoradiography, Royal Microscopical Society, University of Edinburgh	<i>October</i>	
16-23	International Clay Conference, Mexico City ( <i>Am. Mineral.</i> <b>59</b> , 882)	5-10	International Symposium on Geothermometry and Geobarometry, Pennsylvania State University ( <i>Am. Mineral.</i> <b>60</b> , 347)
21-25	Gordon Research Conference, Ion Exchange, Brewster Academy, Wolfeboro, New Hampshire	20-22	Mineralogical Society of America, Geological Society of America, Salt Lake City
28-Aug. 1	Gordon Research Conference, Chemistry and Physics of Solids, Holderness School, Plymouth, New Hampshire	<i>November</i>	
<i>August</i>		6	Mineralogical Society General Meeting, London
4-8	Gordon Research Conferences: Chemical Oceanography, Holderness School, Plymouth, N.H.; Solid State Studies in Ceramics, Brewster Academy, Wolfeboro, N.H.	7	Clay Minerals Group, Mineralogical Society, London
		16-19	Association of Earth Science Editors, Hershey, Pennsylvania

### Proceedings

Proceedings of the 55th Annual Meeting of the Society, including Awards speeches and Memorials, will be published in the May-June 1975 issue.