PROGRAM

INTERNATIONAL MINERALOGICAL ASSOCIATION FOURTH GENERAL MEETING, NEW DELHI, INDIA

The timetable for the Fourth General Meeting of this Association at New Delhi, India, appears *Am. Mineral.* **49**, 221, 1964.

ZEOLITE SYMPOSIUM (J. V. Smith, Chairman)

Thursday, Dec. 17, 1964, 9:00 A.M.–12:10 P.M.

1. Kume, S. and Koizumi, M. Hydrothermal synthesis of pollucite and its iron analog.
2. Nakajima, W. and Koizumi, M. The chemical composition of analcime from the low-grade metamorphic rocks in Japan.
3. Whetten, J. T. and Coombs, D. S. Analcime from sedimentary and burial metamorphic rocks.
4. Roy, R., Taylor, A. M., and Balgord, W. Structural changes in zeolites caused by cation exchange at room temperature and dehydration under controlled pH_2O.

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5. Nakajima, W. and Koizumi, M. Synthesis and stability of zeolites in the system $(Na_2, Ca)O \cdot Al_2O_3 \cdot 7SiO_2 \cdot H_2O$.
6. Shepard, A. O. and Starkey, H. C. The effects of adsorbed cations on the thermal behavior of heulandite and clinoptilolite.
7. Minato, H. Potassium clinoptilolite and powdery mordenite in Itaya, Japan.
8. Pipping, F. The dehydration and chemical composition of laumontite.
9. Aumento, F. and Friedlander, C. Zeolites from North Mountains, Nova Scotia.

KIMBERLITE-CARBONATITE SYMPOSIUM (H. von Eckermann, Chairman)

Friday, December 18, 1964, 2:30 P.M.–4:30 P.M.

1. Dawson, J. B. The kimberlite-carbonatite relationship.
2. Wyllie, P. J. Experimental data bearing on the petrogenetic links between kimberlites and carbonatite.
3. Powell, J. L. Isotopic composition of strontium in whole-rock carbonatite and kimberlite-samples.
4. Bailey, D. K. Potash feldspar and phlogopite as indices of temperature and partial pressure of CO_2 in carbonatite and kimberlite.
5. Grattan-Bellew, P. E. The composition of the garnets from African kimberlites.
6. van Wambeke, L. Mineralogical and geochemical evolution of the carbonatites of the Kaiserstuhl, Germany.
7. Ambs, H. and Paulitsch, P. Carbonatites, their fabric, chemistry and their genesis.
8. Heinrich, E. Wm., Dahlem, D. H. and Quon, S. H. Carbonatites of the Arkansas River valley area, Fremont County, Colorado, U.S.A.
9. von Eckermann, H. The strontium and barium contents of the Alnö carbonatites.

Saturday, December 19, 1964, 9:00 A.M.–12:30 P.M.

10. Wyllie, P. J. Fractional crystallization in synthetic carbonate magmas.
11. Gold, D. P. The average chemical composition of carbonatites.
12. Wimmennauer, W. Carbonatites of the Kaiserstuhl and their magmatic environment.

13. Rapson, June E. Carbonatite in the alkaline complex of the Ice River area, southern Canadian Rocky Mountains.
14. van Wambeke, L. A study of the pyrochlore, the columbite and the fersmite from the Lueshe carbonatite deposit (Republic of Congo).
15. Quon, S. H. and Heinrich, E. Wm. Abundance and significance of some minor elements in carbonatitic calcites and dolomites.
16. Hogarth, Donald D. Intrusive carbonate rock near Ottawa, Canada.
17. Gold, D. P. Minerals from the Oka alkaline complex near Montreal, Quebec, Canada.
18. von Eckermann, H. The pyroxenes of the Alnö carbonatite (sövite) and the surrounding fenites.

GENERAL PAPERS (M. S. Krishnan, Chairman)

Monday, December 21, 1964, 9:00 A.M.–12:30 P.M.; 2:30–4:30 P.M.

1. Ghose, Subrata The application of nuclear magnetic resonance technique in the study of order-disorder and phase transitions in solids.
2. Saha, P. High pressure autoclave for hydrothermal crystal growth.
3. Bandopadhyaya, T. and Saha, P. Observations on hydrothermal growth of quartz.
4. Goswami, D. N. D. Melanterite from the Makum coal basin, Assam.
5. Sahama, Th. G. Polygonal texture in beryl.
6. Watanabe, Takeo and Kato, Akira Ore microscopy and electron probe microanalysis of some manganese minerals with vredenburgite-type intergrowth.
7. Church, W. R. Metamorphic eclogites from County Donegal, Eire.
8. Ghose, Subrata Crystal chemistry of basic copper phosphate and arsenate minerals.
9. de Camargo, W. G. R. Unit cell and space group of artificial cobaltomenite.
10. Goni, J. and Guillemin, C. Nouvelles données sur la localisation des elements en traces dans les minéraux et dans les roches.
11. Nissen, H. U. Distribution of trace elements and silicates in Mediterranean marbles.
12. Rimsaite, J. Y. H. and Lechance, G. R. On heterogeneity of phlogopite, feldspar and euxenite.
13. Altaba, M. Font and Montoriol-Pous, J. Study of temperature of crystallization of some Spanish fluorites by the method of decrepitation.
14. Lietz, Joachim and Mehrotra, B. Influence of gases on the formation and destruction of "colour centres" in quartz by electrolysis.
15. Ganguly, D. and Saha, P. Phase transformations in a natural beryl.
16. Valeton, I. and Mehrotra, B. B. Structural changes in synthetic and natural aluminium hydroxides (bauxite from France).
17. Roy, Rustum Application of variations in crystal field splitting of energy levels of 3 *d* ions to indicate structural changes in various minerals including dehydrating zeolites and clays.
18. Roy, Rustum and Weber, Jon N. Pressure-temperature relations for dehydration of metastable serpentine at pressures from 15- to 20,000 psi.
19. Roy, Della M. Calcium silicate and hydrogarnet formation in the system CaO-Al_2O_3-SiO_2-H_2O.
20. Edgar, A. D. and Nolan, J. Phase relations in the system albite-nepheline-acmite-diopside-water and other experimental studies pertinent to the genesis of alkaline undersaturated rocks.
21. Johns, W. D. and Sengupta, P. K. Bi-O sp 3 hybridization and H-bonding sites on layer silicate surfaces.
22. Amoros, J L. Cleavage features in microdomain single crystals.