sorption and the properties of clean metal surfaces"; R. Schrieffer, "Theory of chemisorption"; P. J. Estrup, "Surface studies by low energy electron diffraction"; C. G. B. Garrett, "Semiconductor surfaces: science and related technology."

30 July. Matter under extreme conditions: Y. R. Shen, "Highly nonlinear optical phenomena"; M. Ruderman, "Superdense matter in astrophysics"; H. Brooks, "Prospects for solid state physics."

31 July. Matter under extreme conditions (continued): G. E. Duvall, "Concepts and applications of shock waves"; B. J. Alder, "Pressure induced transitions."

Nonlinear Optic Effects

C. K. N. Patel, chairman; Y. R. Chen, co-vice chairman; R. W. Hellwarth, co-vice chairman.

3–7 August. Far infrared nonlinear optical effects; stimulated nonlinear effects including stimulated Rayleigh, Brillouin, Raman and Polariton scattering; linear and nonlinear optical effects with picosecond light pulses; propagation of coherent optical radiation through absorbing media. Discussion leaders and speakers: N. Bloembergen, M. Duguay, H. Gibbs, J. A. Giordmaine, T. Greytak, R. W. Hellwarth, B. F. Levine, C. K. N. Patel, P. W. Richards, Y. R. Shen, George Benedek, R. G. Brewer, B. Stoicheff, E. B. Treacy, S. Yatsiv, K. Dransfeld, C. H. R. Flytzanis.

Courses

Paleogeography, Mainz and Karlsruhe, Germany, 3–21 August. The purpose of this NATO Advanced Study Institute is to bring together scientists interested in the problems of paleogeography. Emphasis will be on the integration of the various aspects of geology and geophysics and upon the field excursion program in the Saar-Nahe basin and the Rhine graben. Applications are invited from participants who should have some knowledge of German. Limited funds are available to assist with travel expenses. *Deadline for applications:* 15 April. (Prof. A. E. M. Nairn, Geology Department, Case Western Reserve University, Cleveland, Ohio 44106)

Powder Metallurgy for Engineers, Madison, Wis., 27–31 July. The entire field will be covered with emphasis on the application of metallurgical and scientific principles to the understanding and commercial utilization of the process. (David L. Atwood, University of Wisconsin Engineering Extension, 432 North Lake St., Madison 53706)