some form of double or multiple magnetic resonance, where two or more high-frequency fields are applied, either simultaneously or successively.

The ENDOR (electron nuclear double resonance) technique is described by Feher, and also by Bleaney. Abragam's method of dynamic polarization is reported on by Solomon and by Combrisson. Kaplan and Hahn describe a pulse experiment in which the change in the relaxation time of a nuclear spin species is observed when a second nuclear species is excited. There are several papers concerned with optical pumping and optical detection by Bloom, Cagnac, Kruger, and others. The effect of multiple successive oscillatory fields on molecular beam magnetic resonances is described by Ramsey.

Although most of the work presented has already been published elsewhere, the usefulness of the colloquium report is enhanced by the discussion by the participants after nearly every paper.

The volume is paperbound but the printing is clear. A group photograph of the conferees is reproduced.

**Matrix Calculus** (2nd Revised Ed.). By E. Bodewig. 452 pp. (North-Holland) Interscience Publishers, Inc., New York, 1959. $9.50. *Reviewed by George Weiss, Institute for Fluid Dynamics and Applied Mathematics, University of Maryland.*

THIS is the second edition of a work which is almost encyclopedic in its cataloguing of numerical methods for matrix problems. The present edition differs from the first only in the addition of new material which includes a discussion of Rutishauser's LR-algorithm for the determination of eigenvalues, Wilkinson's method for the speeding up of iteration procedures for the eigenvalue problems, and other, smaller discussions. The new material enhances the value of this book for those who have to deal in a practical way with matrix calculations. A review of the first edition is to be found in the March 1957 edition of *Physics Today*.

**Combustion and Propulsion:** Third AGARD Colloq. (Palermo, Sicily, March 1958). Edited by M. W. Thring, J. Fabri, O. Lutz, A. H. Lefebvre. 614 pp. Pergamon Press, London & New York, 1958. $20.00. *Reviewed by R. E. Street, University of Washington.*

THE Combustion Panel of AGARD (Advisory Group for Aeronautical Research and Development, North Atlantic Treaty Organization) continues to hold these colloquia at a two- or three-year interval in order to enable different research workers in the aeronautical aspects of combustion and propulsion to present critical surveys of progress in their specialized fields. The proceedings are published both as a permanent record and to enable workers in the field who were not in attendance to learn of the progress reported. In many ways these collected surveys are similar to the *Reviews of Modern Physics;* they also serve