LETTERS
Experimental Phenylketonuria: R. Karrer; H. F. Harlow and H. A. Waisman; Marine Biology and a New Canal: J. D. Davis; The Smithsonian: C. G. Abbot; J. W. Bodine

EDITORIAL
Gordon Research Conferences

ARTICLES
Research within the Ionosphere: R. E. Bourdeau

We have revised our understanding of this atmospheric region by using remotely controlled laboratories.

Lignin: Its Constitution and Formation from p-Hydroxycinnamyl Alcohols: K. Freudenberg

Lignin is duplicated by dehydrogenation of these alcohols; intermediates explain formation and structure.

Nucleation of Crystals from Solution: A. G. Walton

Mechanisms of precipitation are fundamental to analytical and physiological processes.

NEWS AND COMMENT

Report from the Middle East: Fundamental Biology at the Weizmann Institute: V. K. McElheny

BOOK REVIEWS
Traité de Paléobotanique: A. A. Cridland


REPORTS
Fossil Particle Tracks and Uranium Distributions in Minerals of the Vaca Muerta Meteorite: R. L. Fleischer et al.

Enzymatic Synthesis of Tri- and Tetranucleotides of Defined Sequence: R. E. Thach and P. Doty
Glossopteris Discovered in West Antarctica: C. Craddock et al. ........................................... 634
Rotation Technique in Electron Microscopy of Viruses: H. O. Agrawal, J. W. Kent, D. M. McKay . 638
Linkage in Control of Allotypic Specificities on Two Different γ-Immunoglobulins: R. Lieberman, S. Dray, M. Potter .................................................. 640
5-Hydroxytryptamine in Single Neoplastic Mast Cells: A Microscopic Spectrofluorometric Study: L. S. Van Orden, I. Vugman, N. J. Giarman ............................... 642
Epinephrine-Induced Normalization of Lipid Metabolism in Adrenalectomized Rats: M. Friedman and S. O. Byers ................................................................. 644
Functional Ribosomal Unit of Gamma-Globulin Synthesis: M. D. Scharff and J. W. Uhr ............ 646
Respiratory and Electrical Responses to Light Stimulation in the Retina of the Frog: W. Sickel ..... 648
Electroretinogram in Newborn Human Infants: A. B. Barnet, A. Lodge, J. C. Armington ............ 651
Auditory Habituation: A Test of a Centrifugal and a Peripheral Theory: W. R. Webster et al. .......... 654
Employment of Women Chemists in Industrial Laboratories: J. B. Parrish ................................ 657
Reinforcement Schedule Generated by an On-line Digital Computer: B. Weiss and V. G. Laties ............................ 658
Observable Changes of Hypotheses under Positive Reinforcement: P. Suppes and M. Schlag-Rey . 661

MEETINGS Symmetry Principles at High Energy: W. D. McGlinn; Forthcoming Events ............ 671

DEPARTMENTS New Products ................................................................. 675

COVER Ping pong balls used as a model of yellow mosaic virus in the turnip. Partial rotation and superimposition of photographs of such a model yield information about the radial symmetry of the virus. If the degree of rotation corresponds exactly with a regularly repeating pattern around its center, then the result is a more prominent version of the original; if not, then, as with this model, the result shows no resemblance to the original. See page 638.