LETTERS Authors, Editors, and Referees: W. W. Knoble, E. A. Richardson, A. G. Foraker, J. W. Hedgpeth, A. G. Steinberg; Stone Age Intellect: Y. Schwartz and G. S. Hawkins ........................................ 443

EDITORIAL Group Interactions among Scientists .......................................................... 447

ARTICLES Auroral Phenomena: B. J. O'Brien .................................................................. 449
Paleobiology of a Precambrian Shale: E. S. Barghoorn, W. G. Meinschein, J. W. Schopf .................................................. 461
Numerical Analysis vs. Mathematics: R. W. Hamming ............................................. 473
Origin of the Moon: H. Alfvén ....................................................................................... 476


BOOK REVIEWS Paleoenvironments and Cultural Adaptations: R. F. Heizer ...................... 487
A selected Guide to the Literature on the Flowering Plants of Mexico, reviewed by J. Ewan; other reviews by D. L. Jones, C. O. Muehlhause, H. M. Leicester, H. L. Nieburg, A. Hassner, E. Pinney, J. Folger, G. H. Minton ............................ 488

Human Skeletons of Tehuacán: J. E. Anderson ......................................................... 496
Chloroplast Mutagenesis: Effect of N-Methyl-N'-Nitro-N-Nitrosoguanidine and Some Other Agents on Euglena: D. R. McCalla ......................................................... 497
Ergoline Alkaloids in Tropical Wood Roses: J. W. Hylin and D. P. Watson ................. 499
Serotonin and Adenosine Triphosphate: Synergistic Effect on the Beat Frequency of Cilia of Mussel Gills: S. L. Schor ................................................................. 500
Culture of Dissociated Drosophila Embryos: Aggregated Cells Differentiate and Sort Out: R. J. Lesseps ................................................................................... 502

BOARD OF DIRECTORS LAURENCE M. GOULD HENRY EYRING ALFRED S. ROMER JOHN W. GARDNER DAVID R. GOYNA M. REES
Vice President, Chairman, President President Elect H. BENTLEY GLASS

VICE PRESIDENTS AND SECTIONS SECRETARIES

MATHEMATICS (A) PHYSICS (B) CHEMISTRY (C) ASTRONOMY (D)
Bernard Friedman Emilio G. Segrè A. H. Batchelder
Wallace Givens Stanley S. Ballard Milton Orinch

ANTHROPOLOGY (E) PSYCHOLOGY (F) SOCIAL AND ECONOMIC SCIENCES (G)
Albert C. Gaudine Benton J. Underwood Thorsten Sellin
Eleanor Leacock Frank W. Finger Isti de Sola Pohl

PHARMACEUTICAL SCIENCES (H) AGRICULTURE (I) INDUSTRIAL SCIENCE (J)
John E. Christianson R. H. Shaw Burton V. Dean
Joseph P. Buckley Howard B. Sprague

EDUCATION (K) HISTORY AND PHILOSOPHY OF SCIENCE (L)
James Rutled Norwood Russell Hanson

DIVISIONS ALASKA DIVISION PACIFIC DIVISION SOUTHWESTERN AND ROCKY MOUNTAIN DIVISION
Richard Mel Hurd George Dahlgren James Bonner Richard C. Miller
Executive Secretary Executive Secretary Executive Secretary

SCIENCE is published weekly on Friday and on the fourth Tuesday in November by the American Association for the Advancement of Science, 1515 Massachusetts Ave., Washington, D.C. 20005. Now combined with The Scientific Monthly. Second-class postage paid at Washington, D.C. Copyright © 1965 by the American Association for the Advancement of Science. Annual subscriptions $8.50; foreign postage, $1.50; Canadian postage, 75c; single copies, 35c. School year subscriptions: 9 months, $7.10 in U.S. and $7.50. Provide 4 weeks’ notice for change of address, giving new and old address and zip numbers. Send a recent address label. SCIENCE is indexed in the Readers’ Guide to Periodical Literature.

Downloaded from http://science.sciencemag.org/ on May 25, 2017
Neoplasia in a Coral?: D. F. Squires ........................................ 503
Chromosomal Breakage in a Rare and Probably Genetically Determined Syndrome of Man: J. German, R. Archibald, D. Bloom ........................................ 506
Mutagenic Effects of Hydroxylamine in vivo: I. Tessman, H. Ishiwa, S. Kumar ........................................ 507
Thin-Layer Chromatography of Plant Pigments on Mannitol or Sucrose: L. W. Smith, R. W. Breidenbach, D. Rubenstein ........................................ 508
Hemoglobin Heterogeneity: Embryonic Hemoglobin in the Duckling and Its Disappearance in the Adult: T. A. Borgese and J. F. Bertles ........................................ 509
Complexes of F-Pili and RNA Bacteriophage: R. C. Valentine and M. Strand ........................................ 511
Glucose-6-Phosphatase: Reexamination of the RNA-Induced Activity in Mouse Ascites Tumor Cells: M. C. Niu ........................................ 513
Cytological Basis of "Sex Ratio" in Drosophila pseudoobscura: E. Novitski, W. J. Peacock, J. Engel ........................................ 516
Seed Dispersal Velocity in Four Dwarf mistletoes: T. E. Hinds and F. G. Hawksworth ........................................ 517
Control of Glutamine Synthetase in the Embryonic Retina in vitro: A. A. Moscona and D. L. Kirk ........................................ 519
Granulocytosis-Promoting Extract of Mouse Tumor Tissue: Partial Purification: L. Delmonte and R. A. Liebelt ........................................ 521
Signal Detection in Fixed-Ratio Schedules: M. Rilling and C. McDiarmid ........................................ 526
Preferential Settling of the Sea Anemone Stomphia coccinea on the Mussel Modiolus modiolus: D. M. Ross ........................................ 527
Visual Accommodation in Human Infants: H. Haynes, B. L. White, R. Held ........................................ 528
Adaptation to Prismatically Rotated Visual Fields: R. B. Morant and H. K. Beller ........................................ 530

MEETINGS

Medical Geology and Geography: H. V. Warren; Electronic Information Handling: A. Kent; Forthcoming Events ........................................ 534

COVER

The rayed band is an aurora emitted at altitudes above about 100 kilometers when oxygen and nitrogen are bombarde by electrons with energies of several thousands of electron volts. The source of these electrons is not known. The band is a horizontal region of dense luminosity, and the rays are narrow, magnetically vertical columns of light. See page 449. [V. Hessler, College, Alaska]