
SCIENCE

Index to Volume 136 April-June 1962

Editorial Board

KONRAD B. KRAUSKOPF	H. BURR STEINBACH
EDWIN M. LERNER	WILLIAM L. STRAUS, JR.
PHILIP M. MORSE	EDWARD L. TATUM

Editorial Staff

DAEL WOLFLE <i>Publisher</i>	HANS NUSSBAUM <i>Business Manager</i>
---------------------------------	--

GRAHAM DU SHANE
Editor

JOSEPH TURNER <i>Associate Editor</i>	ROBERT V. ORMES <i>Managing Editor</i>
--	---

ELLEN E. MURPHY, *Assistant Editor*
NANCY TEIMOURIAN, *Assistant to the Editor*

News: HOWARD MARGOLIS, DANIEL S. GREENBERG,
PATRICIA D. PADDOCK

Book Reviews: SARAH S. DEES

Editorial Assistants: NANCY S. HAMILTON, OLIVER
W. HEATWOLE, EDGAR C. RICH, JOHN E. RINGLE,
CECIL F. SWEENEY, CONRAD YUNG-KWAI

Staff Assistants: LILLIAN HSU, MARION Y. KLINE,
KAY E. KROZELY

EARL J. SCHERAGO, *Advertising Director*

Published by the

American Association for the Advancement of Science

1515 Massachusetts Avenue, NW, Washington 5, D.C.

Printed in Washington, D.C., by National Publishing Company

Copyright 1962 by the American Association for the Advancement of Science

No.	Date of Issue	Pages	No.	Date of Issue	Pages
3510	6 April	1-60	3517	25 May	667-738
3511	13 April	61-218	3518	1 June	739-790
3512	20 April	219-278	3519	8 June	791-940
3513	27 April	279-346	3520	15 June	941-1000
3514	4 May	347-398	3521	22 June	1001-1076
3515	11 May	399-606	3522	29 June	1077-1132
3516	18 May	607-666			

Names of authors of books reviewed are printed in SMALL CAPITALS.

A

- AAAS, Eighth Philadelphia meeting, announcement of, R. L. Taylor, 718
 AAAS (new affiliates), Ottawa field-naturalists' club, A. W. F. Banfield, 546; Society for clinical and experimental hypnosis, M. V. Kline, 549; Society of plastics engineers, F. W. Reynolds, 546
 Abelson, P. H., *et al.*: Fatty acids in sedimentary rocks (*abstr.*), 324
 Abominable snowmen: legend come to life, I. T. SANDERSON, *book review* by W. L. Straus, Jr., 252
 Absence of carbon-14 activity in dolomite from Florida Bay, K. S. Deffeyes and E. L. Martin, 782
 Absorption spectra in the ultraviolet and visible region, vols. 1 and 2, L. LANG (Ed.), *book review* by B. G. Anex, 519
 Acetylcholine, Effect of, on the electrical activity of somatic nerves of the lobster, W. D. Dettbarn and F. A. Davis, 716
 Acker, C. W. *See* Walters, R. H., *et al.*
 Acoustic techniques in magnetic resonance, D. I. Bolef, 359
 Acquisition and extinction of the classically conditioned eyelid response in the albino rabbit, N. Schneiderman *et al.*, 650
 Actinomycin D inhibition of deoxyribonucleic acid-dependent synthesis of ribonucleic acid, I. H. Goldberg and M. Rabinowitz, 315
 Action of 1,1-dichloro-2-p-chlorophenyl-2-o-chlorophenylethane on dog adrenal cortex, A. Cazorla and F. Moncloa, 47
 Active sites of enzyme precursors (*abstr.*), H. Neurath, 328
 Adams, R. M.: Agriculture and urban life in early southwestern Iran, 109; Water conduits and collectors (*letter*), 949
 Addison, R. G. *See* Scarborough, B. B.
 Ader, R.: The basic variable in the early handling phenomenon (*letter*), 580
 Adu, A.: *book review* of Communication in Africa, a search for boundaries, 508
 Advances in quantum electronics, J. R. SINGER (Ed.), *book review* by H. Heffner, 37
 After the seventh day, R. CALDER, *book review* by R. W. Ehrlich, 250
 Age of salt marsh peat in relation to recent changes in sea level (*abstr.*), A. C. Redfield and M. Rubin, 328
 Age of *Zinjanthropus*, W. L. Straus, Jr., and C. B. Hunt, 293
 Agnew, H. W., Jr. *See* Webb, W. B.

- Agriculture and urban life in early southwestern Iran, R. M. Adams, 109
 Ahlrichs, J. L., and J. L. White: Freezing and lyophilizing alters the structure of bentonite gels, 1116
 Ajello, L.: *book review* of *Manuale di micologia medica*, vol. 2, 526
 Albers, H.: *book review* of *Atlas of the universe*, 310
 ALEXANDER, H. W., Elements of mathematical statistics, *book review* of, 1114
 Alexander Wilson, naturalist and pioneer, R. CANTWELL, *book review* by E. G. Allen, 37
 Alimentary responses evoked from forebrain structures in *Macaca mulatta*, B. W. Robinson and M. Mishkin, 260
 Allen, E. G.: *book review* of Alexander Wilson, naturalist and pioneer, 37
 Allendoerfer, C. B.: *book review* of Recent developments in the theory of connections and holonomy groups, 513
 Alterations in learning ability caused by changes in cerebral serotonin or catechol amines (*abstr.*), D. W. Woolley, 330
 American scientists and nuclear weapons policy, R. GILPIN, *book review* by E. Rabinowitch, 974
 Amiot, L. W. *See* von Foerster, H., *et al.*
 AMIRAN, D. H. K., and A. P. SCHICK (Eds.), Geographical conversion tables, *book review* of, 516
 Amygdaloid suppression of hypothalamically elicited attack behavior, M. D. Egger and J. P. Flynn, 43
 Analyses of ancient glasses, 1790-1957, E. R. CALEY, *book review* by G. W. Morey, 868
 Anatomy, A new system of, S. ZUCKERMAN, *book review* by M. Trotter, 524
 Anderson, N. G., and C. L. Burger: Separation of cell components in the zonal ultracentrifuge, 646
 Andrews, J. D. *See* Wood, J. L.
 Anex, B. G.: *book review* of Absorption spectra in the ultraviolet and visible region, vols. 1 and 2, 519
 Appearance of radioactivity in mouse cells after administration of labeled macromolecular RNA, M. R. Schwarz and W. O. Rieke, 152
 Application of automation to urinary steroid assays (*meeting report*), L. L. Engel, 160
 Application of information extraction techniques to human scanning (*meeting report*), A. K. Solomon *et al.*, 885
 Applied anthropology (*letters*), L. Thompson; R. B. Woodbury, 48
 Applied clay mineralogy, R. E. GRIM, *book review* by C. E. Weaver, 870
 Aragonite in the resilium of oysters, H. B. Stenzel, 1121
 Arnon, D. I., and D. O. Hall: Photosynthetic phosphorylation at temperatures above and below 0°C (*abstr.*), 324
 Arrangement of DNA in living sperm: a biophysical analysis, S. Inoué and H. Sato, 1122
 Art for science's sake (*editorial*), J. Turner, 357
 Artificial satellites, M. W. OVENDEN, *book review* by E. M. Rogers, 499
 Asen, S. *See* Emsweller, S. L., *et al.*
 ASHER, H., The seeing eye, *book review* of, 504
 ASIMOV, I., Life and energy, *book review* of, 503
 Astin, A. W.: "Productivity" of undergraduate institutions, 129
 Aston, J. G.: *book review* of The third law of thermodynamics, 251
 Astronomical dictionary, J. KLECZEK, *book review* by I. King, 519
 Astronomical photography, G. DE VAUCOULEURS, *book review* by C. H. Smiley, 520
 Astronomical spectroscopy, A. D. THACKERY, *book review* by B. F. Peery, Jr., 1048
 Atlas of plant morphology, portfolio 1, E. L. FISK and W. F. MILLINGTON, *book review* by W. L. Stern, 527
 Atlas of the universe, B. ERNST and T. E. DE VRIES, *book review* by H. Albers, 310
 Audiogenic seizures (*meeting report*), D. S. Miller, 334
 Auerbach, R.: *book review* of Growth in living systems, 144
 AUSTIN, C. R., The mammalian egg, *book review* of, 526
 AYRES, C. E., Toward a reasonable society, *book review* of, 509
 AZRIN, N. H., *et al.*: Intermittent reinforcement by removal of a conditioned aversive stimulus, 781

B

- Bacteriophage genes and bacterial functions, S. E. Luria, 685
 BAIR, E. J., Introduction to chemical instrumentation, *book review* of, 517

INDEX TO VOLUME 136

iii

- Baker, C. H.: Probability of signal detection in a vigilance task, 46
- BALTZER, F., Theodor Boveri, book review of, 709
- Bambridge, R.: Early experience and sexual behavior in the domestic chicken, 259
- Banfield, A. W. F.: Ottawa Field-Naturalists' Club (*Association Affairs*), 546
- Bankole, R. O. See Schmidt, E. L.
- Barnard, R. D.: Cell growth (*letter*), 903
- BARNETT, S. A. See GARN, S. M.
- BARNETT, A., The human species, book review of, 508
- Basal skin resistance during sleep and "dreaming," D. R. Hawkins *et al.*, 321
- Basic variable in the early handling phenomenon, The, (*letters*), R. Ader; G. W. Meier; T. Schaefer, Jr.; F. S. Weingarten; J. C. Towne, 580
- BASSETT, D. L., A stereoscopic atlas of human anatomy, section 5, book review of, 526
- Bauer, R., *et al.*: Shelter program (*letter*), 910
- Baylor, E. R. and E. Shaw: Refractive error and vision in fishes, 157
- BEAGLEHOLE, J. C. (Ed.), The journals of Captain James Cook on his voyages of discovery, book review of, 507
- Bender, M. L.: book review of Biochemical mechanisms, 1113
- Benninghoff, W. S.: book review of A flora of the Alaskan arctic slope, 529
- BERRY, L. G., and R. M. THOMPSON, X-ray powder data for ore minerals, book review of, 310
- Behyers, R. J.: Relationship between temperature and the metabolism of experimental ecosystems, 980
- Biochemical mechanisms, L. L. INGRAHAM, book review by M. L. Bender, 1113
- Biological effect of the gases of the helium group, New, H. R. Schreiner, *et al.*, 653
- Biology of art, The, D. MORRIS, book review by H. F. Harlow, 1047
- Biosynthesis of proteins, H. CHANTRENNNE, book review by H. S. Loring, 144
- BIRNBAUM, Z. W., Introduction to probability and mathematical statistics, book review of, 1114
- Bjorksten, J.: Patent protection and new drugs (*letter*), 598
- Blair, A. See Segal, S., *et al.*
- Blake, J. B.: book review of From miasmas to molecules, 770
- Blau, M. See Spencer, R. P.
- Blincoe, C. See Bohman, V. R., *et al.*
- BLISS, E. L. (Ed.), Roots of behavior, book review of, 512
- Block, Richard Joseph, biochemist, J. A. Stekol and H. W. Howard (*obituary*), 1039
- Blois, M. S.: book review of Molecular biophysics, 522
- Blumberg, A. A., and S. C. Stavrinou: Direct tabular method for obtaining the order of a reaction of a restricted class, 154
- Bobbitt, J. M.: book review of Clinical research design and analysis in the behavioral sciences, 708
- Bohman, V. R., *et al.*: Distribution of strontium in the bovine skeleton, 1120
- Bolef, D. I.: Acoustic techniques in magnetic resonance, 359
- Bonner, W. A.: book review: Elementary organic chemistry; Organic chemistry today, 707
- Boring, E. G.: Newton and the spectral lines (*letter*), 600
- Bornmann, J. A.: book review of Introduction to chemical instrumentation, 517
- Borthwick, H. A., and H. M. Cathey: Significance of dark reversion of phytochrome in flowering of short-day plants (*abstr.*), 324
- Boulding, K. E.: book review: The new American political economy; Toward a reasonable society, 509
- Böving, B. G.: book review of The mammalian egg, 526
- Boyd, E. S., and L. C. Gardner: Positive and negative reinforcement from intracranial stimulation of a teleost, 648
- BOYD, W. C., Introduction to immunochemical specificity, book review of, 771
- Bradley, M. V. See Sommer, N. F., *et al.*
- Bradshaw, G. VR.: Reproductive cycle of the California leaf-nosed bat, *Macrotus californicus*, 645
- Bray, J. R.: Estimates of energy budgets for a *Typha* (cattail) marsh, 1119
- Breit, G., and H. M. Ruppel: Wave distortion for magnetic moment effects in nucleon-nucleon scattering (*abstr.*), 324
- Brewer, L.: book review of The determination of stability constants and other equilibrium constants in solution, 643
- Briggs, L. C.: book review of The physical anthropology of Southern Nigeria, 510
- Brobeck, J. R., and J. Mayer: Studies of starvation (*letter*), 185
- Brock, T. D.: Magnesium binding as an explanation of the mode of action of novobiocin, 316
- Bronfenbrenner, U. See Bauer, R., *et al.*
- Broquist, H. P. See Jukes, T. H.
- Brown, H. P., and M. M. Jenkins: A protozoan (*Dileptus; ciliata*) predatory upon metazoa, 710
- Brydon, J. E. See Turner, R. C.
- Buchanan, R. E.: Latinization of Greek words in biological taxonomy (*letter*), 947
- Buchholtz, K. P. See Smith, D.
- Buerger, M. J.: book review of Crystallization, theory and practice, 518
- Burger, C. L. See Anderson, N. G.
- Burris, R. H.: Intermediates in biological nitrogen fixation (*abstr.*), 324
- BUSEMANN, H. (Ed.), Recent developments in the theory of connections and holonomy groups, book review of, 513
- Bush, M. T. See Rama Sastry, B. V.
- Buss, C. A.: book review of Southeast Asia today—and tomorrow, 511
- But you have premises to keep (*editorial*), J. Turner, 837
- BUTWELL, R., Southeast Asia today—and tomorrow, book review of, 511
- BUYTENDIJK, F. J. J., Pain, its modes and functions, book review of, 504
- C
- Cahlander, D. See Griffin, D. R., *et al.*
- Cahn, R. D., *et al.*: Nature and development of lactic dehydrogenases, 962
- CALDER, R., After the seventh day, book review of, 250
- Caldwell, D. F., and J. Werboff: Classical conditioning in newborn rats, 1118
- CALEY, E. R., Analyses of ancient glasses, 1790–1957, book review of, 868
- Calhoun, D. H.: book review of The search for a common learning, 505
- CAMPAGNE, E., Elementary organic chemistry, book review of, 707
- Campbell, C. C., *et al.*: *Histoplasma capsulatum* isolated from feather pillow associated with histoplasmosis in an infant, 1050
- Campbell, N. K. See Woolley, D. W.
- CANTWELL, R., Alexander Wilson, naturalist and pioneer, book review of, 37
- Carbon dioxide fixation in lobster nerve, S. Cheng and H. Waelsch, 782
- CARPOVICH, E. A., and V. A. CARPOVICH, Russian-English chemical dictionary, book review of, 515
- Cathey, H. M. See Borthwick, H. A.
- Cation absorption by plant tissue, Course of, E. Epstein *et al.*, 1051
- Caviness, J. A. See Schiff, W., *et al.*
- Cazorla, A., and F. Moncloa: Action of 1,1-dichloro-2-p-chlorophenyl-2-o-chlorophenylethane on dog adrenal cortex, 47
- Cell growth (*letters*), R. D. Barnard; M. L. Mendelsohn, 903
- Cell membrane fusion and the fertilization mechanism in plants and animals, I. Friedmann, 711
- Cellarius, D. S.: Lemurs born in captivity (*letter*), 909
- Celsius versus centigrade: the nomenclature of the temperature scale of science, H. F. Stimson, 254
- Central cholinolytic action of chlorpromazine, W. G. Steiner and H. E. Himwich, 873
- Chance, B., *et al.*: Localized fluorometry of oxidation-reduction states of intracellular pyridine nucleotide in brain and kidney cortex of the anesthetized rat (*abstr.*), 325
- Chang, K.: New evidence on fossil man in China, 749
- Chang, S. C., and F. H. Liaw: Separation of aluminum phosphate from iron phosphate in soils, 386
- CHANTRENNNE, H., Biosynthesis of proteins, book review of, 144
- Chemical dictionary, J. FOUCHER and F. BILLET, book review by R. E. Eastman, 520
- Chemical mating attractants in the queen honey bee, N. E. Gary, 773
- Chemical regulation of flower sex expression and vegetable growth in *Cucumis sativus*, W. D. Mitchell and S. H. Wittwer, 880
- Chemostimulation of brain and of bacterial endotoxins, Effects of, on eating and drinking (*abstr.*), N. E. Miller *et al.*, 327
- Chen, K. K. See Henderson, F. G., *et al.*
- Cheng, S., and H. Waelsch: Carbon dioxide fixation in lobster nerve, 782
- Children's zoo of math, A (*editorial*), J. Turner, 617
- Childs, B.: book review of Genetic mechanisms in human disease: chromosomal aberrations, 36
- Chromatic response mechanisms in the human fovea as measured by threshold spectral sensitivity, H. G. Sperling and C. L. Jolliffe, 317
- CIFERRI, R., Manuale di micologia medica, vol. 2, book review of, 526
- Clabaugh, P. S.: Petrofabric study of deformed salt, 389
- CLARK, G. B. (Ed.), International symposium on mining research, vols. 1 and 2, book review of, 515

INDEX TO VOLUME 136

- Classical conditioning in newborn rats, D. F. Caldwell and J. Werboff, 1118
 Classical electrodynamics, J. D. JACKSON, *book review* by E. L. Lomon, 1046
 Clinical research design and analysis in the behavioral sciences, E. E. LEVITT, *book review* by J. M. Bobbitt, 708
 Cobb, W. M.: *book review*: David Edwardes' Introduction to anatomy 1532; Galen on anatomical procedures; Lectures on the whole of anatomy, 977
 Cohen, I. B.: *book review* of Roger Joseph Boscowich, 1114
 Cohen, P. *See* Chance, B., *et al.*
 Cohn, M.: Magnetic resonance studies of metal-enzyme-substrate interactions (*abstr.*), 325
 Cold Spring Harbor symposia on quantitative biology, vol. 26, *book review* by R. Haselkorn, 1047
 Cole, K. S., and U. Kishimoto: Platinized silver chloride electrode, 381
 Coleman, F.: Keeping up with Soviet research (*letter*), 594
 Collier, A., and A. Murphy: Very small diatoms: preliminary notes and description of *Chaetoceros galvestonensis*, 780
 Collision course (*letter*), E. Kaellis, 589
 Communication in Africa, a search for boundaries, L. W. DOOB, *book review* by A. Adu, 508
 Comprehensive analytical chemistry, vol. 1c, C. L. WILSON and D. W. WILSON (Eds.), *book review* by H. F. Walton, 517
 Computer in geology, The, W. C. Krumbein, 1087
 Concerted attempt to improve relations with the Communists, A., (*letter*), M. H. Marx, 190
 Conditioning in fish: effects of x-irradiation, B. B. Scarborough and R. G. Addison, 712
 Contemporary botanical thought, A. M. MACLEOD and L. S. COBLEY (Eds), *book review* by H. Lewis, 525
 Cooley, J. A. *See* Rheingold, H. L., *et al.*
 COON, C. S., The story of man, *book review* of, 868
 Corliss, J. O.: Statue of Claude Bernard (*letter*), 183
 Cosmogenic carbon-14 in meteorites and terrestrial ages of "finds" and craters, P. S. Goel and T. P. Kohman, 875
 Countercurrent streaming in liquid surfaces and its relevance to protoplasmic movements, J. L. Kavanau, 652
Cover pictures: Mars (6 Apr.); baby lemur (13 Apr.); bee-hive rock (20 Apr.); Cheilostome Bryozoa (29 June); Paleozoic tillite in Antarctica (27 Apr.); starfish, walking surface (4 May); wet fur of a seal pup (11 May); graphite (18 May); pod of Jimson weed (25 May); zinc chromate crystals (1 June); wave shadows (8 June); decayed wood of oak tree (15 June); monkey painting (22 June)
 Cowgill, U. M. *See* Tsukada, M., *et al.*
 Crease, J.: *book review* of An introduction to physical oceanography, 515
 Creasy, M. T. *See* Sommer, N. F., *et al.*
 Crystallization, theory and practice, A. VAN HOOK, *book review* by M. J. Buerger, 518
Current problems in research: Acoustic techniques in magnetic resonance, D. I. Bolef, 359; Age of *Zinjanthropus*, W. L. Straus, Jr., and C. B. Hunt, 293; Agri-culture and urban life in early southwestern Iran, R. M. Adams, 109; Bacteriophage genes and bacterial functions, S. E. Luria, 685; Computer in geology, The, W. C. Krumbein, 1087; Intense rapid heating with flash discharge lamps, L. S. Nelson, 296; Martian biology, F. B. Salisbury, 17; New evidence on fossil man in China, K. Chang, 749; Cunningham amendment, The (*letter*), G. Cunningham, 908
 Cunningham, G.: The Cunningham amendment (*letter*), 908
 Currents in the ionic centrifuge, The, (*abstr.*), J. Slepian, 329
 Cutaneous sensory end organs of some anthropoid apes, R. K. Winkelmann, 384
 CUZZORT, R. P. *See* DUNCAN, O. D., *et al.*
- D**
- Dahl, A. O.: *book review* of The story of pollination, 528
 Dancis, J., *et al.*: Immunological competence of placenta, 382
 Dangerous tranquility (*editorial*), H. B. Taussig, 683
 Darwin and the modern world view, J. C. GREENE, *book review* by C. Zirkle, 502
 Dating of fossil bones by the fluorine method, D. McConnell, 241
 David Edwardes' Introduction to anatomy, 1532, C. D. O'MALLEY and K. F. RUSSELL, *book review* by W. M. Cobb, 977
 Davis, F. A. *See* Dettbarn, W. D.
 DAVISON, J. F., Programming for digital computers, *book review* of, 869
 Day, P. R., and W. M. Forsythe: Effect of isotropic confining pressure on hydrostatic pressure of water in unsaturated soil, 779
 Deal, W. B. *See* Hawkins, D. R., *et al.*
 Deffeyes, K. S., and E. L. Martin: Absence of carbon-14 activity in dolomite from Florida Bay, 782
 Dehydrogenases of *Neurospora crassa*, M. U. Tsao, 42
 DELIMARSKII, I. K., and B. F. MARKOV, Electrochemistry of fused salts, *book review* of, 518
 De Maeyer, E.: Organ cultures of newborn rabbit skin affected by rabbit papilloma virus, 985
 Desert vegetation in Nevada (*letters*), F. E. Egler; P. V. Wells, 906
 Design of water-resource systems, A. MAASS *et al.*, *book review* by R. K. Linsley, 250
 Detection of *Aspergillus flavus* in soil by immunofluorescent staining, E. L. Schmidt and R. O. Bankole, 776
 Determination of stability constants and other equilibrium constants in solution, The, F. J. C. ROSSOTTI and H. ROSSOTTI, *book review* by L. Brewer, 643
 Dettbarn, W. D., and F. A. Davis: Effect of acetylcholine on the electrical activity of somatic nerves of the lobster, 716
 Deutsch, J. A., and C. I. Howarth: Evocation by fear of a habit learned for electrical stimulation of the brain, 1057
 Deutsch, M. *See* Bauer, R., *et al.*
 De Valois, R. L., *et al.*: Effects of increments and decrements of light on neural discharge rate, 986
 DE VAUCOULEURS, G., Astronomical Photography, *book review* of, 520
 Digestive tract of the oyster (*letter*), G. Gunter, 580
 Dilute locus and audiogenic seizures in mice, S. D. Huff and R. L. Huff, 318
 Dimethylacetamide: A hitherto unrecognized hallucinogenic agent, A. J. Weiss *et al.*, 151
 DIMOCK, M. E., The new American political economy, *book review* of, 509
 Direct methods in crystallography, M. M. WOOLFSON, *book review* by V. Vand, 252
 Direct tabular method for obtaining the order of a reaction of a restricted class, A. A. Blumberg and S. C. Stavrinou, 154
 Discovery: great moments in the lives of outstanding naturalists, J. K. TERRES (Ed.), *book review* by L. J. Milne and M. Milne, 504
 Discrete variable methods in ordinary differential equations, P. HENRICI, *book review* by R. E. Moore, 143
 Dispersal patterns of Pleistocene sands on the North Atlantic deep-sea floor, J. F. Hubert, 383
 Distinction with a difference, A (*editorial*), J. Turner, 15
 Distribution of strontium in the bovine skeleton, V. R. Bohman *et al.*, 1120
 Diurnal torpidity in the California pocket mouse, V. A. Tucker, 380
 DOBZHANSKY, T., Mankind evolving: the evolution of the human species, *book review* of, 142
 Dolloff, N.: *book review* of The rock-hunter's range guide, 869
 DOOB, L. W., Communication in Africa, a search for boundaries, *book review* of, 508
 Double visual learning in split-brain monkeys, C. B. Trevarthen, 258
 Douglas, G. W. *See* Dancis, J., *et al.*
 DREW, T. B., Handbook of vector and polyadic analysis, *book review* of, 310
 Drug screening and evaluative procedures, S. Irwin, 123
 Dryden, L.: *book review* of Introduction to college geology, 516
 DUNCAN, O. D., *et al.*, Statistical geography, *book review* of, 510
 Durable peace, A (*letter*), J. Mayer, 900
 DuShane, G.: *editorials*: Federal pay reform, 461; Weights and measures, 1085; Wrong question, 291
- E**
- Early experience and sexual behavior in the domestic chicken, R. Bambridge, 259
 Eastman, R. H.: *book review* of Chemical dictionary, 520
 Edie, L. C.: Messages from other worlds (*letter*), 184
Editorials: Art for science's sake, 357; But you have premises to keep, 837; Children's zoo of math, A, 617; Dangerous tranquility, 683; Distinction with a difference, A, 15; Federal pay reform, 461; New institute for biological studies at San Diego, 747; Notes from underground, 1011; Say, comrade, 951; Science for the public, 107; Some coffee and sandwiches?, 231; Weights and measures, 1085; Wrong question, 291
 Edwards, D. K., Recording animal activity (*letter*), 198

INDEX TO VOLUME 136

v

- Effect of background illumination on the retinal action potential, K. Naka and E. Eguchi, 877
- Effect of isotropic confining pressure of hydrostatic pressure of water in unsaturated soil, P. R. Day and W. M. Forsythe, 779
- Effects of increments and decrements of light on neural discharge rate, R. L. De Valois *et al.*, 986
- Effect of monochromatic rearing on the control of responding by wavelength, N. Peterson, 774
- Egger, M. D., and J. P. Flynn: Amygdaloid suppression of hypothalamically elicited attack behavior, 43
- Egler, F. E.: Desert vegetation in Nevada (*letter*), 906
- Eguchi, E. *See* Naka, K.
- Ehrenpreis, S.: Electroplax and nerve activity (*letter*), 175
- Ehrlich, R. W.: *book review* of After the seventh day, 250
- Eighth Philadelphia meeting (*Association Affairs*), R. L. Taylor, 718
- Eisen, H. N. *See* Karush, F.
- Eisenman, W.: A two-way affair (*letter*), 182
- Eisenbud, M., *et al.*: Iodine-131 dose from Soviet nuclear tests, 370
- Electrochemistry of fused salts, I. K. DELIMARSKII and B. F. MARKOV, *book review* by P. Van Rysselbergh, 518
- Electroesophagogram of individual hookworm (*Ancylostoma caninum*), M. Roche *et al.*, 148
- Electronic and steric factors in induction of cancer by hydrocarbons (*abstr.*), C. Huggins and N. Yang, 327
- Electronics and the life sciences (*letters*), E. F. Leonard; R. S. Ledley and L. B. Lusted, 185
- Electroplax and nerve activity (*letters*), S. Ehrenpreis; D. Nachmansohn, 175
- Elementary organic chemistry, E. CAMPAIGNE, *book review* by W. A. Bonner, 707
- Elements of mathematical statistics, H. W. ALEXANDER, *book review* by S. Kullback, 1114
- Emsweller, S. L., *et al.*: Tumor formation in interspecific hybrids of *Lilium*, 266
- Encyclopaedic dictionary of physics, vols. 1, 2, and 3, J. THEWLIS (Ed.), *book review* by F. Villars, 867
- Engel, L. L.: Application of automation to urinary steroid assays (*meeting report*), 160
- Enhancement of cesium-137 excretion by rats treated with acetazolamide, B. V. Rama Sastry and M. T. Bush, 257
- Enhancement of punitive behavior by audio-visual displays, R. H. Walters *et al.*, 872
- Entomology (*meeting report*), R. W. Sherman, 392
- Enzymes of DNA synthesis in nuclei of sea urchin embryos (*abstr.*), R. Hinegardner and D. Mazia, 326
- Epstein, E., *et al.*: Course of cation absorption by plant tissue, 1051
- ERNST, B., and T. E. DE VRIES, Atlas of the universe, *book review* of, 310
- Errata:* for W. A. Fowler, Nuclear clues to the early history of the solar system [135, 1037 (23 Mar. 1962)], 249; for J. A. Riddell *et al.*, Retardation of plant growth by a new group of chemicals [136, 391 (4 May 1962)], 1044
- Estimates of energy budgets for a *Typha* (cattail) marsh, J. R. Bray, 1119
- Estrogen-sensitive neurons and sexual behavior in female cats, R. P. Michael, 322
- Evans, J. J. T.: Insect neurosecretory material separated by differential centrifugation, 314
- Evocation by fear of a habit learned for electrical stimulation of the brain, J. A. Deutsch and C. I. Howarth, 1057
- L'Evolution de la lithosphère, vol. 3, H. TERMIER and G. TERMIER, *book review* by W. D. Thornbury, 520
- Ewan, J.: *book review* of The journals of Captain James Cook on his voyages of discovery, 507
- Excitatory and inhibitory mechanisms in visceral pain and analgesia (*abstr.*), R. K. S. Lim, 327
- Experience and experiment in biology, P. Weiss, 468
- F
- Falgout, B. T. *See* Campbell, C. C., *et al.*
- FARBER, E. (Ed.), Great chemists, *book review* of, 501
- Fatty acids in sedimentary rocks (*abstr.*), P. H. Abelson *et al.*, 324
- Federal laboratories and science education, A. M. Weinberg, 27
- Federal pay reform (*editorial*), G. DuShane, 461
- Fell, H. B.: A surviving somasteroid from the eastern Pacific Ocean, 633
- Feshbach, H.: *book review* of Quantum mechanics, 514
- Financing of medical care for the aged (*letters*), J. R. Kinsey; D. S. Greenberg, 593
- Fisher, D. E.: *book review* of Researches on meteorites, 1113
- FISK, E. L., and W. F. MILLINGTON, Atlas of plant morphology, portfolio 1, *book review* of, 527
- Flora of the Alaskan arctic slope, A. I. L. WIGGINS and J. H. THOMAS, *book review* by W. S. Benninghoff, 529
- Florida *Torreya* destined for extinction, The (*letter*), R. K. Godfrey and H. Kurz, 900
- FLORINSKY, M. T. (Ed.), McGraw-Hill encyclopedia of Russia and the Soviet Union, *book review* of, 507
- Flynn, J. P. *See* Egger, M. D.
- Formation of double hydroxides and the titration of clays, R. C. Turner and J. E. Brydon, 1052
- Forsythe, W. M. *See* Day, P. R.
- Fosberg, F. R.: Heredity, environment, and culture (*letter*), 914
- Fossil man in China, New evidence on, K. Chang, 749
- Fossils, W. H. MATTHEWS, III, *book review* by J. J. Graham, 505
- FOSTER, W. D.: A short history of clinical pathology, *book review* of, 772
- FOUCHIER, J., and F. BILLET, Chemical dictionary, *book review* of, 520
- Fourier treatment of some experiments in visual flicker, L. Matin, 983
- Fox, R. C.: Medical scientists in a château, 476
- Fox, S. W.: *book review* of Life: its nature, origin and development, 309
- Freeman, I. M.: Interpreting science (*letter*), 902
- Freezing and lyophilizing alters the structure of bentonite gels, J. L. Ahlrichs and J. L. White, 1116
- French, D. W.: *book review* of A monograph of the world species of *Hypoxyton*, 523
- FREUND, J. E., Mathematical statistics, *book review* of, 1114
- Friede, R. L., and W. H. van Houten: Neuronal extension and glial supply (*abstr.*), 325
- Friedell, H. L. *See* Solomon, A. K., *et al.*
- Friedmann, I.: Cell membrane fusion and the fertilization mechanism in plants and animals, 711
- Frings, H., and M. Frings: *book review* of Insect sounds, 523
- From miasmas to molecules, W. B. WOOD, *book review* by J. B. Blake, 770
- Fuentes, I. *See* Schneiderman, N., *et al.*
- Fungilytic activity of a species of *Verticillium*, J. A. Leal and J. R. Villanueva, 715
- Further mathematical aid in optimizing engineering designs, A (*abstr.*), C. Zener, 330
- G
- Galactose incorporation into cell-wall lipopolysaccharide in mutant strain of *Salmonella typhimurium* (*abstr.*), M. J. Osborn *et al.*, 328
- Galen on anatomical procedures, M. C. LYONS and B. TOWERS (Eds.), *book review* by W. M. Cobb, 977
- GAMOW, G.: Gravity, *book review* of, 499
- Gardner, L. C. *See* Boyd, E. S.
- Garn, S. M.: *book review* of The story of man, 868
- Garn, S. M., and S. A. Barnett: *book review* of The human species, 508
- Gary, N. E.: Chemical mating attractants in the queen honey bee, 773
- General-purpose computer (*letters*), M. Taube; W. R. Reitman, 590
- Genetic mechanisms in human disease: chromosomal aberrations, M. F. A. MONTAGUE (Ed.), *book review* by B. Childs, 36
- Gentry, H. S.: *book review* of Plant life of Palestine, Israel, and Jordan, 523
- Geographical conversion tables, D. H. K. AMIRAN and A. P. SCHICK (Eds.), *book review* by R. M. Glendinning, 516
- Germer, L. H., and A. U. MacRae: Structure of crystal surfaces (*abstr.*), 325
- Gershon, A. *See* Guilford, J. P., *et al.*
- Ghaswala, S. K.: Space research (*letter*), 12
- GIBBS, F. W.: Organic chemistry today, *book review* of, 707
- Gibson, J. J. *See* Schiff, W., *et al.*
- Gillin, J. P.: *book review* of The people of Aritama, 770
- GILPIN, R.: American scientists and nuclear weapons policy, *book review* of, 974
- Girdles and griddles, M. A. Harrell (*letter*), 174
- Glendinning, R. M.: *book review* of Geographical conversion tables, 516
- Glenn, J. H., Jr.: The Mercury-Atlas-6 space flight, 1093
- Godfrey, R. K., and H. Kurz: The Florida *Torreya* destined for extinction (*letter*), 900

INDEX TO VOLUME 136

- Goel, P. S., and T. P. Kohman: Cosmogenic carbon-14 in meteorites and terrestrial ages of "finds" and craters, 875
- Goldberg, I. H., and M. Rabinowitz: Actinomycin D inhibition of deoxyribonucleic acid-dependent synthesis of ribonucleic acid, 315
- Goldin, A. S. *See* Eisenbud, M., et al.
- Goldman, C. R., and D. T. Mason: Inorganic precipitation of carbon in productivity experiments utilizing carbon-14, 1049
- Goldsmith, R. W.: National balance sheets and the effects of inflation, 849
- Golomb, B.: Water conduits and collectors (*letter*), 949
- Gomezano, I. *See* Schneiderman, N., et al.
- Gottesman, K. S. *See* Miller, N. E., et al.
- Graham, J. J.: book review of Fossils, 505
- Graubard, M.: book review of Human values and science, art, and mathematics, 503
- Gravity, G. GAMOW, book review by E. M. Rogers, 499
- GRAY, C. H., and A. L. BACHARACH: Hormones in blood, book review of, 38
- Great chemists, E. FARBER (Ed.), book review by L. P. Williams, 501
- Great Kivas of Chaco Canyon and their relationships, The, G. VIVIAN and P. REITTER, book review by N. M. Judd, 311
- Greenberg, D. S. (news and comment): Animal welfare, 863; cigarettes and cancer, 638; fallout shelters, 376; federal aid to education, 138; federal office of science and technology proposed, 32; federal pay reform, 861; graduate fellowships, 305; PHS radiation report, 970; science of survival, 1041; research contracts, 490; space, 137, 246, 378; Titov in Washington, 489; Washington summary, 1107; water research, 767; White House, 698; (*letters*): financing of medical care for the aged, 593; patent protection and new drugs, 598
- GREEN, J. C., Darwin and the modern world view, book review of, 502
- Gregoire, R. C. *See* Schreiner, H. R., et al.
- Griffin, D. R., et al.: Neural discriminations achieved by bats in echolocation (*abstr.*), 326
- GRIM, R. E., Applied clay mineralogy, book review of, 870
- Grinnell, A. D. *See* Griffin, D. R., et al.
- Growth in living systems, M. X. ZARROW (Ed.), book review by R. Auerbach, 144
- Grundfest, H.: Professional education in Russia (*letter*), 12
- Guilford, J. P., et al.: Some primary abilities in the areas of nonverbal divergent production (*abstr.*), 326
- GUNN, D. L., and G. F. FRAENKEL, The orientation of animals, book review of, 707
- Gunter, G.: Digestive tract of the oyster (*letter*), 580
- H**
- Hageman, H. A. *See* Riddell, J. A., et al.
- HAGGERTY, J. L., JR., Spacecraft, book review of, 499
- Hake, D. *See* Azrin, N. H., et al.
- Hall, D. O. *See* Arnon, D. I.
- HALVORSON, O. (Ed.), Spores, vol. 2, book review of, 527
- Hamburger, V.: book review of Theodor Boveri, 709
- Hammel, E. A.: book review of Hualcan, 644
- Hammel, H. T. *See* Hardy, J. D., et al.
- Handbook of vector and polyadic analysis, T. B. DREW, book review by H. L. Royden, 310
- Haplosporidium costale* (Sporozoa) associated with a disease of Virginia oysters, J. L. Wood and J. D. Andrews, 710
- Harboe, M., et al.: Localization of two genetic factors to different areas of γ -globulin molecules, 979
- Hardy, E., and L. T. Alexander: Rainfall and deposition of strontium-90 in Clallam County, Washington, 881
- Hardy, J. D., et al.: Observations on the physiological thermostat in homoiotherms (*abstr.*), 326
- Harlow, H. F.: book review of the Biology of art, 1047
- Harrell, M. A.: Girdles and griddles (*letter*), 174
- Harris, F. E., and R. H. Eastman: book review of Molecular orbital theory for organic chemists, 143
- HARVEY, WILLIAM, Lectures on the whole of anatomy, book review of, 977
- Haselkorn, R.: book review of Cold Spring Harbor symposia on quantitative biology, vol. 26, Cellular regulatory mechanisms, 1047
- HASKELL, P. T., Insect sounds, book review of, 523
- Hassid, W. Z. *See* Watkins, W. M.
- Hawkins, D. R., et al.: Basal skin resistance during sleep and "dreaming," 321
- Haybittle, J. L.: Standards of conduct (*letter*), 917
- Heavy water exponential experiments using ThO_2 and UO_2 , J. A. THIE, book review by W. S. Koski, 517
- Heffner, H.: book review of Advances in quantum electronics, 37
- Heplar, J. Q.: Tie and anti-tie (*letter*), 947
- Henderson, F. G., et al.: Parotoid secretions of Indonesian toads, 775
- HENRICI, P., Discrete variable methods in ordinary differential equations, book review of, 143
- Heredity, environment, and culture (*letter*), F. R. Fosberg, 914
- Heritance of acquired characters, F. L. Horsfall, Jr., 472
- Herriot, J. G.: book review of Programming for digital computers, 869
- Herzfeld, C. M.: Proposed explanation of luminous particles observed in Glenn orbital flight, 1121
- High-pressure chemistry (*abstr.*), W. F. Libby, 327
- Hill, G. B. *See* Campbell, C. C., et al.
- Himwich, H. E. *See* Steiner, W. G.
- Hinegardner, R., and D. Mazia: Enzymes of DNA synthesis in nuclei of sea urchin embryos (*abstr.*), 326
- Histoplasma capsulatum* isolated from feather pillow associated with histoplasmosis in an infant, C. C. Campbell et al., 1050
- Historical structure of scientific discovery, T. S. Kuhn, 760
- History of Lake Petenix, The, departa-
- mento de El Petén, Guatemala (*abstr.*), M. Tsukada et al., 329
- HOCH, J. H., A survey of cardiac glycosides and genins, book review of, 528
- Hoering, T. C. *See* Abelson, P. H., et al.
- Hofstadter, R.: Structure of nuclei and nucleons, 1013
- HOLMES, C. D., Introduction to college geology, book review of, 516
- Holmes, J. E. *See* Miller, N. E., et al.
- Holz, W. C. *See* Azrin, N. H., et al.
- Horecker, B. L. *See* Osborn, M. J., et al.
- Hormones in blood, C. H. GRAY and A. L. BACHARACH (Eds.), book review by C. H. Li, 38
- Horsfall, F. L., Jr.: Heritance of acquired characters, 472
- Hoseh, M.: book review of Russian-English chemical dictionary, 515
- Howard, H. W. *See* Stekol, J. A.
- Howarth, C. I. *See* Deutsch, J. A.
- Hualcan, w. w. STEIN, book review by E. A. Hammel, 644
- Hubbard, W. L. *See* Riddell, J. A., et al.
- Hubbes, M.: Inhibition of *Hypoxyylon pruinatum* by pyrocatechol isolated from bark of aspen, 156
- Hubert, J. F.: Dispersal patterns of Pleistocene sands on the North Atlantic deep-sea floor, 383
- Huff, R. L. *See* Huff, S. D.
- Huff, S. D., and R. L. Huff: Dilute locus and audiogenic seizures in mice, 318
- Huggins, C., and N. Yang: Electronic and steric factors in induction of cancer by hydrocarbons (*abstr.*), 327
- Human species, The, A. BARNETT, book review by S. M. Garn and S. A. Barnett, 508
- Human values and science, art, and mathematics, L. R. LIEBER, book review by M. Graubard, 503
- Hunt, C. B. *See* Straus, W. L., Jr.
- Hutchinson, E.: book review of Retardation of evaporation by monolayers: transport processes, 514
- Hutchinson, G. E. *See* Tsukada, M., et al.
- Hyman, H. *See* Bauer, R., et al.

I

- IKENBERRY, E., Quantum mechanics for mathematicians and physicists, book review of, 868
- Immunological competence of placenta, J. Dancis et al., 382
- Individuality as exhibited by inbred animals; its implications for human behavior (*abstr.*), R. J. Williams et al., 330
- Information-gathering by the CIA (*letters*), S. G. Kingsley; P. D. Wall, 914
- INGRAHAM, L. L., Biochemical mechanisms, book review of, 1113
- Inghram, M. G.: The kinetics of unimolecular dissociation (*abstr.*), 327
- Inhibition of *Hypoxyylon pruinatum* by pyrocatechol isolated from bark of aspen, M. Hubbes, 156
- Inorganic precipitation of carbon in productivity experiments utilizing carbon-14, C. R. Goldman and D. T. Mason, 1049
- Inoué, S., and H. Sato: Arrangement of DNA in living sperm: a biophysical analysis, 1122

INDEX TO VOLUME 136

Insect neurosecretory material separated by differential centrifugation, J. J. T. Evans, 314

Insect sounds, P. T. HASKELL, *book review* by H. Frings and M. Frings, 523

Institute for biological studies at San Diego, New, (*editorial*), W. Weaver, 747

Intense rapid heating with flash discharge lamps, L. S. Nelson, 296

Intermediates in biological nitrogen fixation (*abstr.*), R. H. Burris, 324

Intermittent reinforcement by removal of a conditioned aversive stimulus, N. H. Azrin *et al.*, 781

International symposium on mining research, vols. 1 and 2, G. B. CLARK (Ed.), *book review* by E. Just, 515

Interpreting science (*letter*), I. M. Freeman, 902

Intestinal transport of selenium-75 selenomethionine, R. P. Spencer and M. Blau, 155

Introduction to chemical instrumentation, E. J. BAIR, *book review* by J. A. Bornmann, 517

Introduction to college geology, C. D. HOLMES, *book review* by L. Dryden, 516

Introduction to immunochemical specificity, W. C. BOYD, *book review* by C. A. Williams, 771

Introduction to physical oceanography, An, W. S. VON ARX, *book review* by J. Crease, 515

Introduction to probability and mathematical statistics, Z. W. BIRNBAUM, *book review* by S. Kullback, 1114

Inverarity, R. B. See Seborg, R. M.

Iodine-131 dose from Soviet nuclear tests, M. Eisenbud *et al.*, 370

Iron, organic matter, and other factors limiting primary productivity in a marl lake, C. L. Schelske, 45

Irwin, S.: Drug screening and evaluative procedures, 123

Isomerization, Effect of, on migratory analysis, K. J. Mysels and P. C. Scholten, 693

J

Jackson, C. W., Jr., and E. L. Kelly: Suggestion and sensory deprivation (*letter*), 596

JACKSON, J. D., Classical electrodynamics, *book review* of, 1046

Jackson, L. G. See Weiss, A. J., *et al.*

Jacobs, G. H. See De Valois, R. L., *et al.*

J'Anthony, C. M. See Riddell, J. A., *et al.*

Jenkins, M. M. See Brown, H. P.

Jobsis, F. See Chance, B., *et al.*

Johnstone, C.: *book review* of Physical techniques in biological research, vol. 4, 521

JOHNSTONE, S. J., and M. J. JOHNSTONE, Minerals for the chemical and allied industries, *book review* of, 145

Jolliffe, C. L. See Sperling, H. G.

Jones, A. E. See De Valois, R. L., *et al.*

Jordan, G. F.: Large submarine sand waves, 839

Journals of Captain James Cook on his voyages of discovery, The, vol. 2, J. C. BEAGLEHOLE (Ed.), *book review* by J. Ewan, 507

Judd, N. M.: *book review* of The great Kivas of Chaco Canyon and their relationships, 311

Jukes, T. H., and H. P. Broquist: Sparing action of folic acid by thymidine (*letter*), 183

Just, E.: *book review* of International symposium on mining research, vols. 1 and 2, 515

K

Kaellis, E.: Collision course (*letter*), 589

Käfer, E. See Tector, M. A.

Kaplan, I. T. See Mackworth, N. H.

Kaplan, N. O. See Cahn, R. D., *et al.*

Karush, F., and H. N. Eisen: A theory of delayed hypersensitivity, 1032

Kaufman, L., and I. Rock: The moon illusion, I, 1953; II, 1023

Kavanau, J. L.: Countercurrent streaming in liquid surfaces and its relevance to protoplasmic movements, 652; —, and K. S. Norris, Recording animal activity (*letter*), 198

Kay, M. W.: Science, linguistics, lexicography (*letter*), 192

Keeping up with Soviet research (*letter*), F. Coleman, 594

Kellogg, W. N.: *book review* of Roots of behavior, 512

Kelly, E. L. See Jackson, C. W., Jr.

Kinetics of unimolecular dissociation, The, (*abstr.*), M. G. Inghram, 327

King, I.: *book review* of Astronomical dictionary, 519

Kingsley, S. G.: Information-gathering by the CIA (*letter*), 914

Kinsey, J. R.: Financing of medical care for the aged (*letter*), 593

Kishimoto, U. See Cole, K. S.

KLECZEK, J., Astronomical dictionary, *book review* of, 519

KLIENECKER-NOBEL, E., Pleuropneumonia-like organisms (PPLO) Mycoplasmataceae, *book review* of, 977

Kline, M. V.: Society for clinical and experimental hypnosis (*Association Affairs*), 549

Kohman, T. P. See Goel, P. S.

Koltes, J. A. See Weiss, A. J., *et al.*

Koski, W. S.: *book review* of Heavy water exponential experiments using ThO₂ and UO₂, 517

Krader, L.: *book review* of Studies in Siberian ethnogenesis, 1112

Kranzberg, M.: The newest history: science and technology, 463

Krebs, A. T.: *book review* of Strahlenschutz in Forschung und Praxis, vol. 1, 309

Kross, R. D.: Space messengers (*letter*), 913

Krumbein, W. C.: The computer in geology, 1087

KRUTCH, J. W. (Ed.), The world of animals, *book review* of, 504

Kuhn, T. S.: Historical structure of scientific discovery, 760

Kullback, S.: *book review*: Elements of mathematical statistics; Mathematical statistics; Introduction to probability and mathematical statistics, 1114

Kulp, J. L., and A. R. Schulert: Strontium-90 in man V, 619

Kunkel, H. G. See Harboe, M., *et al.*

Kurz, H. See Godfrey, R. K.

L

LaBrecque, G. C., *et al.*: Mating competitiveness of chemosterilized and normal male house flies, 388

Lachance, P. A.: Pay and promotion (*letter*), 587

LA MER, V. K. (Ed.), Retardation of evaporation by monolayers: transport processes, *book review* of, 514

LANG, L. (Ed.), Absorption spectra in the ultraviolet and visible region, vols. 1 and 2, *book review* of, 519

Large submarine sand waves, G. F. Jordan, 839

Laurer, G. R. See Eisenbud, M., *et al.*

Latinization of Greek words in biological taxonomy (*letters*), R. E. Buchanan; D. A. Soulides, 947

Lawrie, J. A. See Schreiner, H. R., *et al.*

Leal, J. A., and J. R. Villanueva: Fungicidal activity of a species of *Verticillium*, 715

Lectures on the whole of anatomy, W. HARVEY, *book review* by W. M. Cobb, 977

Ledley, R. S., and L. B. Lusted: Electronics and the life sciences (*letter*), 185

Lemurs born in captivity (*letter*), D. S. Cellarius, 909

Leonard, E. F.: Electronics and the life sciences (*letter*), 185

Levine, L. See Cahn, R. D., *et al.*

LEVITT, E. E., Clinical research design and analysis in the behavioral sciences, *book review* of, 708

Lewis, H.: *book review* of Contemporary botanical thought, 525

Li, C. C.: On "reflexive selection," 1055

Li, C. H.: *book review* of Hormones in blood, 38

Liau, F. H. See Chang, S. C.

Libby, W. F.: High-pressure chemistry (*abstr.*), 327

LIEBER, L. R., Human values and science, art, and mathematics, *book review* of, 503

Life: its nature, origin and development, A. I. OPARIN, *book review* by S. W. Fox, 309

Life and Energy, I. ASIMOV, *book review* by K. Sauer, 503

Lim, R. K. S.: Excitatory and inhibitory mechanisms in visceral pain and analgesia (*abstr.*), 327

Lindsay of Birker: *book reviews*: Politics, personality, and nation building, 1045; The Sino-Soviet conflict, 1956-1961, 642

Linsley, R. K.: *book review* of Design of water-resource systems, 250

Livingston, M. S., and J. Blewett: Particle accelerators, *book review* of, 870

Livingstone, F. B.: *book review* of Readings in cultural geography, 511

Lloyd, T.: *book review* of Norway north of 65, 512

Localization of two genetic factors to different areas of γ -globulin molecules, M. Harboe, *et al.*, 979

Localized fluorometry of oxidation-reduction states of intracellular pyridine nucleotide in brain and kidney cortex of the anesthetized rat (*abstr.*), B. Chance *et al.*, 325

Lockard, R. B.: Rats for research (*letter*), 919

Lofgren, E. J.: *book review* of Particle accelerators, 870

INDEX TO VOLUME 136

- Lomon, E. L.: *book review* of Classical electrodynamics, 1046
 Long, W. E.: Sedimentary rocks of the Buckeye Range, Horlick Mountains, Antarctica, 319
 Loring, H. S.: *book review* of Biosynthesis of proteins, 144
 Luria, S. E.: Bacteriophage genes and bacterial functions, 685
 Lusted, L. B. *See* Ledley, R. S.
 LYONS, M. C., and B. TOWERS (Eds.), Galen on anatomical procedures, *book review* of, 977

M

- McConnell, D.: Dating of fossil bones by the fluorine method, 241
 McCue, J. J. G. *See* Griffin, D. R., et al.
 McGraw-Hill encyclopedia of Russia and the Soviet Union, M. T. FLORINSKY (Ed.), *book review* by A. Vucinich, 507
 MAASS, A., et al., Design of water-resource systems, *book review* of, 250
 MacFarlane, C. I. *See* Young, E. G.
 Mackworth, N. H., and I. T. Kaplan: Visual acuity when eyes are pursuing moving targets, 387
 MACLEOD, A. M., and L. S. COBLEY (Eds.), Contemporary botanical thought, *book review* of, 525
 Macpherson, L. *See* Roche, M., et al.
 MacRae, A. U. *See* Germer, L. H.
 Magnesium binding as an explanation of the mode of action of novobiocin, T. D. Brock, 316
 Magnetic resonance studies of metal-enzyme-substrate interactions (*abstr.*), M. Cohn, 325
 Malogolowkin, C.: Races and incipient species in *Drosophila paulistorum* (*abstr.*), 327
 Mammalian egg, The, c. R. AUSTIN, *book review* by B. G. Böving, 526
 Mancall, E. L. *See* Weiss, A. J., et al.
 Mankind evolving: the evolution of the human species, T. DOBZHANSKY, *book review* by G. G. Simpson, 142
 Manuale di micologia medica, vol. 2, R. CIFERRI, *book review* by L. Ajello, 526
 Margolis, H. (*News and Comment*): Atomic power, 244; congressional action on communications, education, and drug reform, 304; first strike: notes on nuclear semantics, 136; new research programs, 765; nuclear testing, 375; political notes, 697; security program, 637; Supreme Court's decision to open apportionment to judicial review, 30; *letter*: Shelter program, 910
 Marshall, M. S.: Science, linguistics, lexicography (*letter*), 192
 Martian biology, F. B. Salisbury, 17
 Martin, E. L. *See* Deffeyes, K. S.
 Martinez-Torres, C. *See* Roche, M., et al.
 Marx, M. H.: A concerted attempt to improve relations with the Communists (*letter*), 190
 Mason, D. T. *See* Goldman, C. R.
 Mathematical statistics, J. E. FREUND, *book review* by S. Kullback, 1114
 Mathematical statistics, S. S. WILKS, *book review* by S. Kullback, 1114
 Matin, L.: Fourier treatment of some experiments in visual flicker, 983
 Mating competitiveness of chemosterilized

- and normal male house flies, G. C. LaBrecque et al., 388
 MATTHEWS, W. H., III, Fossils, *book review* of, 505
 Mayer, J.: A durable peace (*letter*), 900. *See also* Brobeck, J. R.
 Mazia, D. *See* Hinegardner, R.
 Measurement of membrane potentials in *Neurospora*, C. L. Slayman and C. W. Slayman, 876
 Medical scientists in a château, R. C. Fox, 476
 Medical teaching in western civilization, W. B. WARTMAN, *book review* by G. E. Miller, 251
 Meeting reports: Application of automation to urinary steroid assays, 160; Application of information extraction techniques to human scanning, 885; Audiogenic seizures, 334; Entomology, 392; Seaweed symposium, 267
 MEEUSE, B. J. D.: The story of pollination, *book review* of, 528
 Meier, G. W.: The basic variable in the early handling phenomenon (*letter*), 580
 Meifert, D. W. *See* LaBrecque, G. C., et al.
 MELCHING, H., et al. (Eds.), Strahlenschutz in forschung und praxis, vol. 1, *book review* of, 309
 Mellor's comprehensive treatise on inorganic and theoretical chemistry, supplement, vol. 2, *book review* by C. P. Smyth, 518
 Mendelsohn, M. L.: Cell growth (*letter*), 903
 Mercury-Atlas-6 space flight, J. H. Glenn, Jr.; J. A. O'Keefe, 1093
 Merrifield, P. R. *See* Guilford, J. P., et al.
 Messages from other worlds (*letter*), L. C. Edie, 184
 Messiah, A.: Quantum mechanics, *book review* of, 514
 Metabolism of inorganic nitrogen and its compounds in microorganisms (*abstr.*), D. J. D. Nicholas and P. W. Wilson, 328
 Method for studying exploratory behavior in infants, H. L. Rheingold et al., 1054
 Methods and materials for teaching the biological sciences, D. F. MILLER and G. W. BLAYDES, *book review* by F. G. Watson, 525
 Michael, D. *See* Bauer, R., et al.
 MICHAEL, H. N. (Ed.), Studies in Siberian ethnogenesis, *book review* of, 1112
 Michael, R. P.: Estrogen-sensitive neurons and sexual behavior in female cats, 322
 MILLER, D. F., and G. W. BLAYDES, Methods and materials for teaching the biological sciences, *book review* of, 525
 Miller, D. S.: Audiogenic seizures (*meeting report*), 334
 Miller, G. A.: *book review* of Thought and language, 36
 Miller, G. E.: *book review* of Medical teaching in Western civilization, 251
 MILLER, J. H., A monograph of the world species of *Hypoxyylon*, *book review* of, 523
 Miller, N. E., et al.: Effects of chemostimulation of brain and of bacterial endotoxins on eating and drinking (*abstr.*), 327
 Milne, L. J., and M. Milne: *book review*: Discovery: great moments in the lives of outstanding naturalists; The world of animals, 504
 MILNE, M. *See* MILNE, L. J.
 Minerals for the chemical and allied industries, S. J. JOHNSTONE and M. J. JOHNSTONE, *book review* by L. A. Wright, 145
 Mishkin, M. *See* Robinson, B. W.
 Misra, D. N.: An unfortunate event (*letter*), 199
 Mitchell, W. D., and S. H. Wittwer: Chemical regulation of flower sex expression and vegetative growth in *Cucumis sativus* L., 880
 Mochizuki, Y. *See* Eisenbud, M., et al.
 Molecular biophysics, R. B. SETLOW and E. C. POLLARD, *book review* by M. S. Blois, 522
 Molecular orbital theory for organic chemists, A. STREIWIESER, JR., *book review* by F. E. Harris and R. H. Eastman, 143
 Moment, G. B.: Reflexive selection: a possible answer to an old puzzle, 262; On "reflexive selection," 1055; *book review*: Pain, its modes and functions; The seeing eye, 504
 Moncloa, F. *See* Cazorla, A.
 Monograph of the world species of *Hypoxyylon*, A. J. H. MILLER, *book review* by D. W. French, 523
 MONTAGUE, M. F. A. (Ed.), Genetic mechanisms in human disease: chromosomal aberrations, *book review* of, 36
 Moog, F.: *book review* of Morphogenesis of the vertebrates, 522
 Moon illusion, The, L. Kaufman and I. Rock, part I, 953; part II, 1023
 MOORE, C. B. (Ed.), Researches on meteorites, *book review* of, 1113
 Moore, R. E.: *book review* of Discrete variable methods in ordinary differential equations, 143
 Mora, P. M. *See* von Foerster, H., et al.
 Morey, G. W.: *book review* of Analyses of ancient glasses, 1790–1957, 868
 Morowitz, H. J.: *book review* of Pleuropneumonia-like organisms (PPLO) Mycoplasmataceae, 977
 Morphogenesis of the vertebrates, T. W. TORREY, *book review* by F. Moog, 522
 MORRIS, D.: The biology of art, *book review* of, 1047
 Murphy, A. *See* Collier, A.
 Murray, H. A.: Prospect for psychology, 483
 Mysels, K. J., and P. C. Scholten: Effect of isomerization on migratory analysis, 693

N

- Nachmansohn, D.: Electroplax and nerve activity (*letter*), 175
 Naka, K., and E. Eguchi: Effect of background illumination on the retinal action potential, 877
 Nakayama, T. *See* Hardy, J. D., et al.
 NASTUCK, W. L. (Ed.), Physical techniques in biological research, vol. 4, *book review* of, 521
 National Academy of Sciences (*abstracts*), 324
 National balance sheets and the effects of inflation, R. W. Goldsmith, 849
 National laboratories for biology?, J. R. Platt, 859

INDEX TO VOLUME 136

ix

- Nature and development of lactic dehydrogenases, R. D. Cahn *et al.*, 962
- Nelson, L. S.: Intense rapid heating with flash discharge lamps, 296
- Nerve fiber as a system in continuous flow: microcinematographic and electronmicroscopic demonstrations, The (*abstr.*), P. Weiss *et al.*, 330
- Neural discriminations achieved by bats in echolocation (*abstr.*), D. R. Griffin *et al.*, 326
- Neurath, H.: Active sites of enzyme precursors (*abstr.*), 328
- Neuronal extension and glial supply (*abstr.*), R. L. Friede and W. H. van Houten, 325
- New American political economy, The, M. E. DIMOCK, *book review* by K. E. Boulding, 509
- Newell, A., and H. Simon: Simulation of cognitive processes (*letter*), 195
- Newest history, The: science and technology, M. Kranzberg, 463
- News and comment:* Animal welfare, 863; atomic power, 244; cigarettes and cancer, 638; congressional action on communications, education, and drug reform, 304; fallout shelters, 376; federal aid to education, 138; federal office of science and technology proposed, 32; federal pay reform, 861; first strike: notes on nuclear semantics, 136; graduate fellowships, 305; new research programs, 765; nuclear testing, 375; political notes, 697; Public Health Service radiation report, 970; research contracting, 490; science and survival, 1041; security program, 637; space, 137, 246, 378; Supreme Court's decision to open apportionment to judicial review, 30; Titov in Washington, 489; Washington summary, 1107; water research, 767; White House, 698
- Newton and the spectral lines (*letter*), E. G. Boring, 600
- Nicholas, D. J. D., and P. W. Wilson: Metabolism of inorganic nitrogen and its compounds in microorganisms (*abstr.*), 328
- Nobel prize lecture:* Structure of nuclei and nucleons by R. Hofstadter, 1013
- Norris, K. S. *See* Kavanau, J. L.
- Norway north of 65, ø. VORREN (Ed.), *book review* by T. Lloyd, 512
- Notes from underground (*editorial*), J. Turner, 1011
- O**
- Obituary:* Richard Joseph Block, biochemist, 1039
- Observations on the physiological thermostat in homoiotherms (*abstr.*), J. D. Hardy *et al.*, 326
- Oceanic detritus, T. R. Parsons and J. D. H. Strickland, 313
- O'Keefe, J. A.: The Mercury-Atlas-6 space flight, 1093
- Okita, G. T.: *book review* of A survey of cardiac glycosides and genins, 528
- O'MALLEY, C. D., and K. F. RUSSELL, David Edwardes' Introduction to anatomy, 1532, *book review* of, 977
- On growth and form, D. W. THOMPSON, *book review* by O. W. Richards, 38
- On "reflexive selection," C. C. Li; G. B. Moment, 1055
- OPARIN, A. I.: Life: its nature, origin and development, *book review* of, 309
- Organ cultures of newborn rabbit skin affected by rabbit papilloma virus, E. De Maeyer, 985
- Organic chemistry today, F. W. GIBBS, *book review* by W. A. Bonner, 707
- Orientation of animals, The, D. L. GUNN and G. F. FRAENKEL, *book review* by G. C. Stephens, 707
- Osborn, M. J., *et al.*: Galactose incorporation into cell-wall lipopolysaccharide in mutant strain of *Salmonella typhimurium* (*abstr.*), 328
- Osterland, C. K. *See* Harboe, M., *et al.*
- Ottawa Field-Naturalists' Club (*Association Affairs*), A. W. F. Banfield, 546
- OVENDEN, M. W.: Artificial satellites, *book review* of, 499
- Oxidation of carbon-14 labeled galactose by subjects with congenital galactosemia, S. Segal *et al.*, 150
- P**
- Pabst, A.: *book review* of X-ray powder data for ore minerals, 310
- Pain, its modes and functions, F. J. J. BUYTENDIJK, *book review* by G. B. Moment, 504
- Parker, P. L. *See* Abelson, P. H., *et al.*
- Parotoid secretions of Indonesian toads, F. G. Henderson *et al.*, 775
- Parr, L. W.: *book review* of A short history of clinical pathology, 772
- Parsons, T. R., and J. D. H. Strickland: Oceanic detritus, 313
- Particle accelerators, M. S. LIVINGSTON and J. BLEWETT, *book review* by E. J. Lofgren, 870
- Paschkis, V.: Shelter program (*letter*), 910
- Patent protection and new drugs (*letters*), J. Bjorksten; D. S. Greenberg, 598
- Pay and promotion (*letter*), P. A. La chance, 587
- Peach mesocarp explant enlargement and callus production in vitro, N. F. Sommer *et al.*, 264
- Peery, B. F., Jr.: *book review* of Astronomical spectroscopy, 1048
- Pelton, R. B. *See* Williams, R. J., *et al.*
- People of Aritama, The, G. REICHEL-DOLMATOFF and A. REICHEL-DOLMATOFF, *book review* by J. P. Gillin, 770
- Perry, T. L.: Urinary excretion of amines in phenylketonuria and mongolism, 879
- Persistent fear responses in rhesus monkeys to the optical stimulus of "looming," W. Schiff *et al.*, 982
- PETERSEN, K.: Prehistoric life on earth, *book review* of, 506
- Peterson, N.: Effect of monochromatic rearing on the control of responding by wavelength, 774
- Petrofabric study of deformed salt, P. S. Clabaugh, 389
- Photosynthetic phosphorylation at temperatures above and below 0°C (*abstr.*), D. I. Arnon and D. O. Hall, 324
- Physical anthropology of Southern Nigeria, The, P. A. TALBOT and H. MULHALL, *book review* by L. C. Briggs, 510
- Physical techniques in biological research, vol. 4, W. L. NASTUCK (Ed.), *book review* by C. Johnstone, 521
- PIDDINGTON, J. H.: Radio astronomy, *book review* of, 506
- Pillai, P. A. *See* Weiss, P., *et al.*
- Plant life of Palestine, Israel, and Jordan, M. ZOHARY, *book review* by H. S. Geography, 523
- Platinized silver chloride electrode, K. S. Cole and U. Kishimoto, 381
- Platt, J. R.: National laboratories for biology?, 859
- Pleuropneumonia-like organisms (PPLO) Mycoplasmataceae, E. KLIENEBERGER-NOBEL, *book review* by H. J. Morowitz, 977
- Politics, personality, and nation building, L. W. PYE, *book review* by Lindsay of Birker, 1045
- Polyelectrolyte solutions, S. A. RICE and M. NAGASAWA, *book review* by G. Weiss, 771
- Positive and negative reinforcement from intracranial stimulation of a teleost, E. S. Boyd and L. C. Gardner, 648
- Prabhaker N., S. *See* Subray N., N.
- Prehistoric life on earth, K. PETERSEN, *book review* by R. A. Stirton, 506
- Premack, D.: Reversibility of the reinforcement relation, 255
- Preservation of old, waterlogged wood by treatment with polyethylene glycol, R. M. Seborg and R. B. Inverarity, 649
- Price, D. K.: The scientific establishment, 1100
- Probability of signal detection in a vigilance task, C. H. Baker, 46
- "Productivity" of undergraduate institutions, A. W. Astin, 129
- Professional education in Russia (*letter*), H. Grundfest, 12
- Programming for digital computers, J. F. Davison, *book review* by J. G. Herriot, 869
- "Projections" versus "forecasts" in human population studies (*letter*), H. von Foerster *et al.*, 173
- Proposed explanation of luminous particles observed in Glenn orbital flight, C. M. Herzfeld, 1121
- Prospect for psychology, H. A. Murray, 483
- Protozoan (*Dileptus*; *Ciliata*) predatory upon metazoa, A. H. P. Brown and M. M. Jenkins, 710
- Puryear, H. B. *See* Hawkins, D. R., *et al.*
- PYE, L. W.: Politics, personality, and nation building, *book review* of, 1045
- Q**
- Quantum mechanics, vol. 1, A. MESSIAH, *book review* by H. Feshbach, 514
- Quantum mechanics for mathematicians and physicists, E. IKENBERRY, *book review* by J. D. Walecka, 868
- Quastler, H. *See* Solomon, A. K., *et al.*
- R**
- Rabinowitch, R.: *book review* of American scientists and nuclear weapons policy, 974
- Rabinowitz, M. *See* Goldberg, I. H.
- Races and incipient species in *Drosophila paulistorum* (*abstr.*), C. Malogolowkin, 327
- Radiation-induced chromosomal aberra-

INDEX TO VOLUME 136

- tions and lethals in *Aspergillus nidulans*, M. A. Tector and E. Käfer, 1056
- Radio astronomy, J. H. PIDDINGTON, book review by H. J. Smith, 506
- Rainfall and deposition of strontium-90 in Clallam County, Washington, E. Hardy and L. T. Alexander, 881
- Rains, D. W. See Epstein, E., et al.
- Rama Sastry, B. V., and M. T. Bush: Enhancement of cesium-137 excretion by rats treated with acetazolamide, 257
- Random processes, M. ROSENBLATT, book review by G. Weiss, 311
- RANSOM, J. E., Rock-hunter's range guide, book review of, 869
- Rats for research (letter), R. B. Lockard, 919
- Readings in cultural geography, P. L. WAGNER and M. W. MIKESELL (Eds.), book review by F. B. Livingstone, 511
- Recent developments in the theory of connections and holonomy groups, H. BUSEMANN (Ed.), book review by C. B. Allendoerfer, 513
- Recording animal activity (letters), D. K. Edwards; J. L. Kavanau and K. S. Norris, 198
- Redfield, A. C., and M. Rubin: Age of salt marsh peat in relation to recent changes in sea level (abstr.), 328
- Reflexive selection: a possible answer to an old puzzle, G. B. Moment, 262
- Refractive error and vision in fishes, E. R. Baylor and E. Shaw, 157
- REICHEL-DOLMATOFF, G., and A. REICHEL-DOLMATOFF, The people of Aritama, book review of, 770
- Reitman, W. R.: General-purpose computer (letter), 590
- Relationship between temperature and the metabolism of experimental ecosystems, R. J. Beyers, 980
- Reproductive cycle of the California leaf-nosed bat, *Macrotus californicus*, G. VR. Bradshaw, 645
- Researches on meteorites, C. B. MOORE (Ed.), book review by D. E. Fisher, 1113
- Retardation of evaporation by monolayers: transport processes, V. K. LA MER (Ed.), book review by E. Hutchinson, 514
- Retardation of plant growth by a new group of chemicals, J. A. Riddell et al., 391; erratum, 1044
- Reversibility of the reinforcement relation, D. Premack, 255
- Reynolds, F. W.: Society of plastics engineers (*Association Affairs*), 546
- Rheingold, H. L., et al.: Method for studying exploratory behavior in infants, 1054
- RICE, S. A., and M. NAGASAWA, Polyelectrolyte solutions, book review of, 771
- Richards, O. W.: book review of On growth and form, 38
- Riddell, J. A., et al.: Retardation of plant growth by a new group of chemicals, 391; erratum, 1044
- Rieke, W. O. See Schwarz, M. R.
- Rieser, L. M.: book review of The teaching of science, 501
- Riesman, D. See Bauer, R., et al.
- Robinson, B. W., and M. Mishkin: Alimentary responses evoked from forebrain structures in *Macaca mulatta*, 260
- Roche, M., et al.: Electrosophagogram of individual hookworm (*Ancylostoma caninum*), 148
- Rock, I., and L. Kaufman: The moon illusion, I, 953; II, 1023
- Rock-hunter's range guide, J. E. RANSOM, book review by N. Dolloff, 869
- Roger Joseph Boscovich, L. L. WHYTE (Ed.), book review by I. B. Cohen, 1114
- Rogers, E. M.: book review: Artificial satellites; Gravity; Spacecraft, 499
- Roots of behavior, E. L. BLISS (Ed.), book review by W. N. Kellogg, 512
- Rosen, S. M. See Osborn, M. J., et al.
- ROSENBLATT, M., Random processes, book review of, 311
- ROSS, H. H., A synthesis of evolutionary theory, book review of, 528
- ROSSOTTI, F. J. C., and H. ROSSOTTI, The determination of stability constants and other equilibrium constants in solution, book review of, 643
- Rothfield, L. See Osborn, M. J., et al.
- Royden, H. L.: book review of Handbook of vector and polyadic analysis, 310
- Rubin, M. See Redfield, A. C.
- Ruppel, H. M. See Breit, G.
- Rurainski, H. See Shapiro, J.
- Russian-English chemical dictionary, E. A. CARPOVICH and V. A. CARPOVICH, book review by M. Hoseh, 515
- Ruth, E. B.: book review of A stereoscopic atlas of human anatomy, section 5, 526
- S**
- Salisbury, F. B.: Martian biology, 17
- Samuels, B. D. See Dancis, J., et al.
- Sanders, J. E.: Strike-slip displacement on faults in Triassic rocks in New Jersey, 40
- SANDERSON, I. T., Abominable snowmen: legend come to life, book review of, 252
- Sato, H. See Inoué, S.
- Sauer, K.: book review of Life and energy, 503
- SAUNDERS, J. H., The wild species of *Gossypium* and their evolutionary history, book review of, 708
- Say, comrade (editorial), J. Turner, 951
- Scarborough, B. B., and R. G. Addison: Conditioning in fish: effects of x-irradiation, 712
- Schaefer, T., Jr., et al.: The basic variable in the early handling phenomenon (letter), 580
- Schelske, C. L.: Iron, organic matter, and other factors limiting primary productivity in a marl lake, 45
- Scientific establishment, The, D. K. Price, 1100
- Schiff, W., et al.: Persistent fear responses in rhesus monkeys to the optical stimulus of "looming," 982
- Schmid, W. E. See Epstein, E., et al.
- Schmidt, E. L., and R. O. Bankole: Detection of *Aspergillus flavus* in soil by immunofluorescent staining, 776
- Schneiderman, N., et al.: Acquisition and extinction of the classically conditioned eyelid response in the albino rabbit, 650
- Schoener, B. See Chance, B., et al.
- Scholten, P. C. See Mysels, K. J.
- Schreiner, H. R., et al.: New biological effect of the gases of the helium group, 653
- Schulert, A. R.: Strontium-90 in Alaska, 146. See also Kulp, J. L.
- Schlutes, R. E.: book review of The wild species of *Gossypium* and their evolutionary history, 708
- SCHWAB, J., and P. BRANDWEIN, The teaching of science, book review of, 501
- Schwarz, M. R., and W. O. Rieke: Appearance of radioactivity in mouse cells after administration of labeled macromolecular RNA, 152
- Science curriculum in Argentina (letter), J. E. Wright, 182
- Science for the public (editorial), D. Wolfe, 107
- Science, linguistics, lexicography (letters), M. W. Kay; M. S. Marshall, 192
- Scientists and the CIA (letter), P. D. Wall, 173
- Search for a common learning, The, R. THOMAS, book review by D. H. Calhoun, 505
- Seaweed symposium (meeting report), E. G. Young and C. I. MacFarlane, 267
- Seborg, R. M., and R. B. Inverarity: Preservation of old, waterlogged wood by treatment with polyethylene glycol, 649
- Sedimentary rocks of the Buckeye Range, Horlick Mountains, Antarctica, W. E. Long, 319
- Seeing eye, The, H. ASHER, book review by G. B. Moment, 504
- Segal, S., et al.: Oxidation of carbon-14 labeled galactose by subjects with congenital galactosemia, 150
- Self-determination of critical flicker frequencies in monkeys, D. Symmes, 714
- Sensation measurement by inverse judgments (abstr.), S. S. Stevens, 329
- Separation of aluminum phosphate from iron phosphate in soils, S. C. Chang and F. H. Liaw, 386
- Separation of cell components in the zonal ultracentrifuge, N. G. Anderson and C. L. Burger, 646
- Serotonin-like and antiserotonin properties of psilocybin and psilocin, D. W. Woolley and N. K. Campbell, 777
- SETLOW, R. B., and E. C. POLLARD, Molecular biophysics, book review of, 522
- Sex chromatin anomalies in newborn babies in India, N. Subray N. and S. Prabhaker N., 1116
- Shapiro, J., and H. Rurainski: Vacuum filtration of large volumes in the laboratory, 988
- Shaw, E. See Baylor, E. R.
- Sherman, R. W.: Entomology (meeting report), 392
- Shelter program (letters), R. Bauer et al.; V. Paschkis; H. Margolis, 910
- Short history of clinical pathology, A. W. D. FOSTER, book review by L. W. Parr, 772
- Siegel, F. L. See Williams, R. J., et al.
- Significance of dark reversion of phytochrome in flowering of short-day plants (abstr.), H. A. Borthwick and H. M. Cathey, 324
- Simon, H. See Newell, A.
- Simpson, G. G.: book reviews: A synthesis of evolutionary theory, 528; Mankind evolving: the evolution of the human species, 142

INDEX TO VOLUME 136

xi

- Simulation of cognitive processes (*letters*), M. Taube; A. Newell and H. Simon, 195
- SINGER, J. R. (Ed.), Advances in quantum electronics, *book review* of, 37
- Sinnott, E. W.: A two-way affair (*letter*), 182
- Sino-Soviet conflict, The, 1956-1961, D. S. ZAGORIA, *book review* by Lindsay of Birker, 642
- Slayman, C. L., and C. W. Slayman: Measurement of membrane potentials in *Neurospora*, 876
- Slayman, C. W. See Slayman, C. L.
- Sleep deprivation, age, and exhaustion time in the rat, W. B. Webb and H. W. Agnew, Jr., 1122
- Slepian, J.: The currents in the ionic centrifuge (*abstr.*), 329
- Smiley, C. H.: *book review* of Astronomical photography, 520
- Smith, C. N. See LaBrecque, G. C., et al.
- Smith, H. J.: *book review* of Radio astronomy, 506
- Smith, D., and K. P. Buchholtz: Transpiration rate reduction in plants with atrazine, 263
- Smith, M. B.: *book review* of Social research to test ideas, 869
- Smyth, C. P.: *book review* of Mellor's comprehensive treatise on inorganic and theoretical chemistry, supplement, vol. 2, 518
- Social research to test ideas, S. A. STOUFFER, *book review* by M. B. Smith, 869
- Society for clinical and experimental hypnosis, M. V. Kline, 549
- Society of plastics engineers (*Association Affairs*), F. W. Reynolds, 546
- Solomon, A. K., et al.: Application of information extraction techniques to human scanning (*meeting report*), 885
- Some coffee and sandwiches? (*editorial*), J. Turner, 231
- Some primary abilities in the areas of nonverbal divergent production (*abstr.*), J. P. Guilford et al., 326
- Sommer, N. F., et al.: Peach mesocarp explant enlargement and callus production in vitro, 264
- Soulides, D. A.: Latinization of Greek words in biological taxonomy (*letter*), 947
- Southeast Asia today—and tomorrow, R. BUTWELL, *book review* by C. A. Buss, 511
- Space messengers (*letter*), R. D. Kross, 913
- Space research (*letter*), S. K. Ghaswala, 12
- Spacecraft, J. L. HAGGERTY, JR., *book review* by E. M. Rogers, 499
- Sparing action of folic acid by thymidine (*letter*), T. H. Jukes and H. P. Broquist, 183
- Spencer, R. P., and M. Blau: Intestinal transport of selenium-75 selenomethionine, 155
- Sperling, H. G., and C. L. Jolliffe: Chromatic response mechanisms in the human fovea as measured by threshold spectral sensitivity, 317
- Spores, vol. 2, O. HALVORSON (Ed.), *book review* by N. J. Williams-Walls, 527
- Standards of conduct (*letter*), J. L. Haybittle, 917
- Stanley, W. C. See Rheingold, H. L., et al.
- Statistical geography, O. D. DUNCAN et al., *book review* by M. D. Thomas, 510
- Statue of Claude Bernard (*letter*), J. O. Corliss, 182
- Stavrinou, S. C. See Blumberg, A. A.
- STEIN, W. W., Hualcan, *book review* of, 644
- Steiner, W. G., and H. E. Himwich: Central cholinolytic action of chlorpromazine, 873
- Stekol, J. A., and H. W. Howard: Richard Joseph Block, biochemist (*obituary*), 1039
- Stenzel, H. B.: Aragonite in the resilium of oysters, 1121
- Stephens, G. C.: *book review* of The orientation of animals, 707
- Stereoscopic atlas of human anatomy, A, section 5, D. L. BASSETT, *book review* by E. B. Ruth, 526
- Stern, R. M.: Suggestion and sensory deprivation (*letter*), 596
- Stern, W. L.: *book review* of Atlas of plant morphology, portfolio 1, 527
- Stevens, S. S.: Sensation measurement by inverse judgments (*abstr.*), 329
- Stevenson, J. A.: *book review* of A world monograph of the genus *Pleospora* and its segregates, 524
- Stimson, H. F.: Celsius versus centigrade: the nomenclature of the temperature scale of science, 254
- Stirton, R. A.: *book review* of Prehistoric life on earth, 506
- Story of man, C. S. COON, *book review* by S. M. Garn, 868
- Story of pollination, A. B. J. D. MEEUSE, *book review* by A. O. Dahl, 528
- STOUFFER, A. S., Social research to test ideas, *book review* of, 869
- Strahlenschutz in Forschung und Praxis, vol. 1, H. MELCHING et al. (Eds.), *book review* by A. T. Krebs, 309
- Straus, W. L., Jr.: *book review* of Abominable snowmen: legend come to life, 252
- Straus, W. L., Jr., and C. B. Hunt: Age of *Zinjanthropus*, 293
- STREITWIESER, A., JR., Molecular orbital theory for organic chemists, *book review* of, 143
- Strengthening the behavioral sciences, 233
- Strickland, J. D. H. See Parsons, T. R.
- Strike-slip displacement on faults in Triassic rocks in New Jersey, J. E. Sanders, 40
- Strontium-90 in Alaska, A. R. Schulert, 146
- Strontium-90 in man V, J. L. Kulp and A. R. Schulert, 619
- Structure of crystal surfaces (*abstr.*), L. H. Germer and A. U. MacRae, 325
- Structure of nuclei and nucleons, R. Hofstadter, 1013
- Studies in Siberian ethnogenesis, H. N. MICHAEL (Ed.), *book review* by L. Krader, 1112
- Studies of starvation (*letter*), J. R. Brobeck and J. Mayer, 185
- Subray N., N., and S. Prabhaker N.: Sex chromatin anomalies in newborn babies in India, 1116
- Suggestion and sensory deprivation (*letters*), R. M. Stern; C. W. Jackson, Jr., and E. L. Kelly, 596
- Survey of cardiac glycosides and genins, A. J. HAMPTON HOCH, *book review* by G. T. Okita, 528
- Surviving somasteroid from the eastern Pacific Ocean, A. H. B. Fell, 633
- Symmes, D.: Self-determination of critical flicker frequencies in monkeys, 714
- Synthesis of evolutionary theory, A. H. H. ROSS, *book review* by G. G. Simpson, 528
- Synthesis of lactose by particulate enzyme preparations from guinea pig and bovine mammary glands (*abstr.*), W. M. Watkins and W. Z. Hassid, 329

T

- TALBOT, P. A., and H. MULHALL, The physical anthropology of Southern Nigeria, *book review* of, 510
- Taube, M.: *letters*: General-purpose computer, 590; Simulation of cognitive processes, 195
- Taussig, H. B.: Dangerous tranquility (*editorial*), 683
- Taylor, A. C. See Weiss, P., et al.
- Taylor, R. L.: Eighth Philadelphia meeting (*Association Affairs*), 718
- Teaching of science, The, J. SCHWAB and P. BRANDWEIN, *book review* by L. M. Rieser, 501
- Tector, M. A., and E. Käfer: Radiation-induced chromosomal aberrations and lethals in *Aspergillus nidulans*, 1056
- TERMIER, H., and G. TERMIER, L'Evolution de la lithosphère, vol. 3, *book review* of, 520
- TERRES, J. K., (Ed.), Discovery: great moments in the lives of outstanding naturalists, *book review* of, 504
- THACKERY, A. D., Astronomical spectroscopy, *book review* of, 1048
- Theodor Boveri, F. BALTZER, *book review* by V. Hamburger, 709
- Theory of delayed hypersensitivity, A. F. Karush and H. N. Eisen, 1032
- THEWLIS, J., (Ed.), Encyclopaedic dictionary of physics, vols. 1, 2, and 3, *book review* of, 867
- THIE, J. A., Heavy water exponential experiments using ThO_2 and UO_2 , *book review* of, 517
- Third law of thermodynamics, The, J. WILKS, *book review* by J. G. Aston, 251
- Thomas, E. L. See Walters, R. H., et al.
- Thomas, E. S. See Hawkins, D. R., et al.
- Thomas, M. D.: *book review* of Statistical geography, 510
- THOMAS, R., The search for a common learning, *book review* of, 505
- THOMPSON, D. W., On growth and form, *book review* of, 38
- Thompson, L.: Applied anthropology (*letter*), 48
- Thornbury, W. D.: *book review* of L'Evolution de la lithosphère, vol. 3, 520
- Thought and language, L. S. VYGOTSKII, *book review* by G. A. Miller, 36
- Tie and anti-tie (*letter*), J. Q. Heplar, 947
- Topper, Y. J. See Segal, S., et al.
- TORREY, T. W., Morphogenesis of the vertebrates, *book review* of, 522
- Toward a reasonable society, C. E. AYRES, *book review* by K. E. Boulding, 509
- Towne, J. C. See Schaefer, T., Jr., et al.

INDEX TO VOLUME 136

W

- Transpiration rate reduction in plants with atrazine, D. Smith and K. P. Buchholtz, 263
 Trevarthen, C. B.: Double visual learning in split-brain monkeys, 258
 Trotter, M.: *book review* of A new system of anatomy, 524
 Tsao, M. U.: Dehydrogenases of *Neurospora crassa*, 42
 Tsukada, M., et al.: The history of Lake Petenixil, departamento de El Petén, Guatemala (*abstr.*), 329
 Tucker, V. A.: Diurnal torpidity in the California pocket mouse, 380
 Tumor formation in interspecific hybrids of *Lilium*, S. L. Emsweller et al., 266
 Turner, J.: *editorials*: Art for science's sake, 357; But you have premises to keep, 837; Children's zoo of math, A, 617; Distinction with a difference, A, 15; Notes from underground, 1011; Say, comrade, 951; Some coffee and sandwiches?, 231
 Turner, R. C., and J. E. Brydon: Formation of double hydroxides and the titration of clays, 1052
 Two-way affair, A (*letters*), W. Eisenman and E. W. Sinnott, 182

U

- Uhring, J. *See* Emsweller, S. L., et al.
 Unfortunate event, An (*letter*), D. N. Misra, 199
 Urinary excretion of amines in phenylketonuria and mongolism, T. L. Perry, 879

V

- Vacuum filtration of large volumes in the laboratory, J. Shapiro and H. Rurainski, 988
 VAN HOOK, A., Crystallization, theory and practice, *book review* of, 518
 van Houten, W. H. *See* Friede, R. L.
 Van Rysselberghe, P.: *book review* of Electrochemistry of fused salts, 518
 Vand, V.: *book review* of Direct methods in crystallography, 252
 Very small diatoms: preliminary notes and description of *Chaetoceros galvestonensis*, A. Collier and A. Murphy, 780
 Villanueva, J. R. *See* Leal, J. A.
 Villars, F.: *book review* of The encyclopaedic dictionary of physics, vols. 1, 2, and 3, 867
 Visual acuity when eyes are pursuing moving targets, N. H. Mackworth and I. T. Kaplan, 387
 VIVIAN, G., and P. REITER, The great Kivas of Chaco Canyon and their relationships, *book review* of, 311
 VON ARX, W. S., An introduction to physical oceanography, *book review* of, 515
 von Foerster, H., et al.: "Projections" versus "forecasts" in human population studies (*letter*), 173
 VORREN, Ø. (Ed.), Norway north of 65, *book review* of, 512
 Vucinich, A.: *book review* of McGraw-Hill encyclopaedia of Russia and the Soviet Union, 507
 VYGOTSKII, L. S., Thought and language, *book review* of, 36

W

- Wade, M. A. *See* Bohman, V. R., et al.
 Waelsch, H. *See* Cheng, S.
 WAGNER, P. L., and M. W. MIKESELL (Eds.), Readings in cultural geography, *book review* of, 511
 Walecka, J. D.: *book review* of Quantum mechanics for mathematicians and physicists, 868
 Wall, P. D.: *letters*: Scientists and the CIA, 173; Information-gathering by the CIA, 914
 Wallace, C. D. *See* Hawkins, D. R., et al.
 Walters, R. H., et al.: Enhancement of punitive behavior by audio-visual displays, 872
 Walton, H. F.: *book review* of Comprehensive analytical chemistry, 517
 WARTMAN, W. B., Medical teaching in Western civilization, *book review* of, 251
 Water conduits and collectors (*letters*), B. Golomb; R. M. Adams, 949
 Watkins, W. M., and W. Z. Hassid: Synthesis of lactose by particulate enzyme preparations from guinea pig and bovine mammary glands (*abstr.*), 329
 Watson, F. G.: *book review* of Methods and materials for teaching the biological sciences, 525
 Wave distortion for magnetic moment effects in nucleon-nucleon scattering (*abstr.*), G. Breit and H. M. Ruppel, 324
 Weaver, C. E.: *book review* of Applied clay mineralogy, 870
 Weaver, W.: New institute for biological studies at San Diego (*editorial*), 747
 Webb, W. B., and H. W. Agnew, Jr.: Sleep deprivation, age, and exhaustion time in the rat, 1122
 Webster, F. A. *See* Griffin, D. R., et al.
 WEHMEYER, L. E., A world monograph of the genus *Pleospora* and its segregates, *book review* of, 524
 Weights and measures (*editorial*), G. DuShane, 1085
 Weinberg, A. M.: The federal laboratories and science education, 27
 Weingarten, F. S. *See* Schaefer, T., Jr., et al.
 Weiss, A. J., et al.: Dimethylacetamide: a hitherto unrecognized hallucinogenic agent, 151
 Weiss, G.: *book reviews*: Random processes, 311; Polyelectrolyte solutions, 771
 Weiss, P.: Experience and experiment in biology, 468
 Weiss, P., et al.: The nerve fiber as a system in continuous flow: microcinematographic and electromicroscopic demonstrations (*abstr.*), 330
 Welles, J. S. *See* Henderson, F. G., et al.
 Wells, P. V.: Desert vegetation in Nevada (*letter*), 906
 Werboff, J. *See* Caldwell, D. F.
 White, J. C. *See* Weiss, A. J., et al.
 White, J. L. *See* Ahlrichs, J. L.
 Whyte, L. L. (Ed.), Roger Joseph Bosovich, *book review* of, 1114
 WIGGINS, I. L., and J. H. THOMAS, A flora of the Alaskan arctic slope, *book review* of, 529
 Wild species of *Gossypium* and their evolutionary history, The, J. H. SAUNDERS, *book review* by R. E. Schultes, 708
 WILKS, J., The third law of thermodynamics, *book review* of, 251
 WILKS, S. S., Mathematical statistics, *book review* of, 1114
 Williams, C. A.: *book review* of Introduction to immunochemical specificity, 771
 Williams, L. P.: *book review* of Great chemists, 501
 Williams, R. J., et al.: Individuality as exhibited by inbred animals; its implications for human behavior (*abstr.*), 330
 Williams-Walls, N. J.: *book review* of Spores, vol. 2, 527
 WILSON, C. L., and D. W. WILSON (Eds.), Comprehensive analytical chemistry, vol. 1c, *book review* of, 517
 Wilson, P. W. *See* Nicholas, D. J. D.
 Winkelmann, R. K.: Cutaneous sensory end organs of some anthropoid apes, 384
 Withey, S. *See* Bauer, R., et al.
 Wittwer, S. H. *See* Mitchell, W. D.
 Wolfe, D.: Science for the public (*editorial*), 107
 Wood, J. L., and J. D. Andrews: *Haplosporidium costale* (Sporozoa) associated with a disease of Virginia oysters, 710
 wood, w. b., From miasmas to molecules, *book review* of, 770
 Woodbury, R. B.: Applied anthropology (*letter*), 48
 WOOLFSON, M. M., Direct methods in crystallography, *book review* of, 252
 Woolley, D. W.: Alterations in learning ability caused by changes in cerebral serotonin or catechol amines (*abstr.*), 330
 Woolley, D. W., and N. K. Campbell: Serotonin-like and antiserotonin properties of psilocybin and psilocin, 777
 World monograph of the genus *Pleospora* and its segregates, A. L. E. WEHMEYER, *book review* by J. A. Stevenson, 524
 World of animals, The, J. W. KRUTCH (Ed.), *book review* by L. J. Milne and M. Milne, 504
 Wright, J. E.: Science curriculum in Argentina (*letter*), 182
 Wright, L. A.: *book review* of Minerals for the chemical and allied industries, 145
 Wrong question (*editorial*), G. DuShane, 291

X, Y, Z

- X-ray powder data for ore minerals, L. G. BERRY and R. M. THOMPSON, *book review* by A. Pabst, 310
 Yang, N. *See* Huggins, C.
 Young, E. G., and C. I. MacFarlane: Seaweed symposium (*meeting report*), 267
 ZAGORIA, D. S., The Sino-Soviet conflict, 1956-1961, *book review* of, 642
 ZARROW, M. X., (Ed.), Growth in living systems, *book review* of, 144
 Zener, C.: A further mathematical aid in optimizing engineering designs (*abstr.*), 330
 Zirkle, C.: *book review* of Darwin and the modern world view, 502
 ZOHARY, M.: Plant life of Palestine, Israel, and Jordan, *book review* of, 523
 ZUCKERMAN, S.: A new system of anatomy, *book review* of, 524
 Zwilling, E. *See* Cahn, R. D., et al.