
SCIENCE

Index to Volume 138
October–December 1962

Editorial Board

DAVID M. BONNER	WILLARD F. LIBBY
MELVIN CALVIN	NEAL E. MILLER
ERNEST COURANT	PHILIP M. MORSE
FARRINGTON DANIELS	COLIN S. PITTEENDRIGH
JOHN T. EDSELL	KENNETH S. PITZER
DAVID R. GODDARD	H. BURR STEINBACH
ALEXANDER HOLLAENDER	DEWITT STETTIN, JR.
ROBERT JASTROW	WILLIAM L. STRAUS, JR.
KONRAD B. KRAUSKOPF	EDWARD L. TATUM
EDWIN M. LERNER	JOHN R. WINCKLER
	CLARENCE M. ZENER

Editorial Staff

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

PHILIP H. ABELSON
Editor

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

INDEX TO VOLUME 138

No.	Date of Issue	Pages	No.	Date of Issue	Pages
3536	5 October	1-68	3543	23 November	849-932
3537	12 October	69-390	3544	30 November	933-1008
3538	19 October	391-462	3545	7 December	1009-1216
3539	26 October	463-554	3546	14 December	1217-1292
3540	2 November	555-614	3547	21 December	1293-1360
3541	9 November	615-764	3548	28 December	1361-1416
3542	16 November	765-848			

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

A

- AAAS: Meeting program, 1114; 129th annual meeting, 1111; Philadelphia meeting, 696; What to see and do in Philadelphia, 1112
- Abelson, P. H., *editorials*: Civilian nuclear power, 1231; The need for skepticism, 75; Plans for *Science*, 405; Science and the humanities, 1367; The Venus mission, 1069
- Absence of dental caries in a Nigerian bush village, F. L. Tabrah, 38
- Absorption spectroscopy, R. P. BAUMAN, *book review* by F. E. Blacet, 129
- Abyssal Crustacea, J. L. BARNARD, R. J. MENZIES and M. C. BACESCU, *book review* by J. W. Hedgpeth, 424
- Acarology (*meeting report*), J. A. Naegele, 538
- Adjustment of monkeys to five continuous days of work, R. Byck and E. Hearst, 43
- Advanced calculus for applications, F. B. HILDEBRAND, *book review* by T. Botts, 1391
- Advanced inorganic chemistry, F. A. COTTON and G. WILKINSON, *book review* by D. W. Robinson, 887
- Advances in astronomy and astrophysics, A. KOPAL (Ed.), *book review* by L. H. Aller, 966
- Advances in comparative physiology and biochemistry, O. LOWENSTEIN (Ed.), *book review* by C. L. Prosser, 503
- Advances in pharmacology, S. GARATTINI and P. A. SHORE (Eds.), *book review* by A. Furst, 1092
- Age and creativity (*editorial*), I. H. Page, 947
- Air pollution: photooxidation of aromatic hydrocarbons, A. P. Altshuller *et al.*, 442
- Alarm reaction of the top smelt, *Atherinops affinis*, W. A. Skinner *et al.*, 681
- ALEXANDER, A. F. O'D., The planet Saturn, *book review* of, 423
- Alexander, W. M.: Cosmic dust, 1098
- Algebraic logic, P. R. HALMOS, *book review* by L. Henkin, 886
- Allen, A. A.: *book review* of Birds of the Caribbean, 1094
- Allen, L. C.: Binding of inert gas halogenide molecules, 892
- ALLEN, R. P., Birds of the Caribbean, *book review* of, 1094
- Allen, S. L.: Hybrid enzymes and isozymes (*letter*), 714
- Allendoerfer, C. B.: *book review* of Introduction to set theory and topology, 674
- Aller, L. H.: *book review* of Advances in astronomy and astrophysics, 966
- Allison, E. C. See Menard, H. W., *et al.*
- Allison, S. K.: Arthur Holly Compton, research physicist (*obituary*), 794
- Altshuller, A. P., *et al.*: Air pollution: photooxidation of aromatic hydrocarbons, 442
- Amadon, D., *et al.*: Population biology (*letter*), 733
- AMELINK, F.: Rapid microchemical identification methods in pharmacy and toxicology, *book review* of, 676
- Amino acids in deep-sea water, K. Park *et al.*, 531
- Analysis of titanium, zirconium, and their alloys, The, W. T. ELWELL and D. F. WOOD, *book review* by M. J. Miles, 134
- Anand, B. K., *et al.*: Effect of glucose on the activity of hypothalmic "feeding centers," 597
- Anders, E.: Two meteorites of unusually short cosmic-ray exposure age, 431
- , and F. W. Fitch: Search for organized elements in carbonaceous chondrites, 1392
- Anderson, D. L.: *book review* of The inspiration of science, 966
- Anderson, I. C. See Richardson, L. B., *et al.*
- Anderson, J. J., *et al.*: Antarctica: geology of the Ellsworth Mountains, 824
- Anderson, J. M. See Benirschke, K., *et al.*
- Anderson, N. H.: Application of an additive model to impression formation, 817
- Anderson, W. H.: *book review* of The beetles of the Pacific Northwest. Pselaphidae and Diversicornia I, 676
- ANDREWS, D. H., and R. J. KOKES, Fundamental chemistry, *book review* of, 506
- Androes, G. M. See Calvin, M.
- Angell, J. W.: The dollar and the international monetary system, 1071
- Angino, E. E., *et al.*: Chemical stratification in Lake Fryxell, Victoria Land, Antarctica, 34
- Angiotensin II: its metabolic fate, P. A. Khairallah *et al.*, 523
- Animal dispersion in relation to social behaviour, V. C. WYNNE-EDWARDS, *book review* by P. W. Frank, 1389
- Animal experimentation (*letters*), K. D. Ansevin; W. B. Webb, 475
- Anion-exchange properties of plant root surfaces, D. W. Williams, 153
- Ansevin, K. D.: Animal experimentation (*letter*), 475
- Antal, P. S.: Interpretation of cation-exchange mechanisms (*letter*), 719
- Antarctica: geology of the Ellsworth Mountains, J. J. Anderson *et al.*, 824
- Antarctica: the microbiology of an unfrozen saline pond, G. H. Meyer *et al.*, 1103
- Anthrax toxin: causative agent in the death of rhesus monkeys, F. Klein *et al.*, 1331
- Antoine, B.: Synthetic acrylic gel: a new medium for the study of immune precipitates, 977
- APPLEZWEIG, N.: Steroid drugs, *book review* of, 26
- Application of an additive model to impression formation, N. H. Anderson, 817
- Application of a time series statistic to physiology and psychology, P. H. Leiderman and D. Shapiro, 141
- Applied geophysics, USSR, N. RAST (Ed.), *book review* by J. L. Soske, 804
- Archaeology of Easter Island, T. HEYERDAHL and E. N. FERDON, JR. (Eds.), *book review* by K. P. Emory, 884
- Archeological investigations in east central Arizona, P. S. Martin, 826
- Are logic and mathematics identical?, L. Henkin, 788
- Argyris, B. F.: *book review* of Transplantation of tissues and cells, 1325
- Armitage, K. B. See Angino, E. E., *et al.*
- Arnhoff, F. N., *et al.*: Sensory deprivation: its effects on human learning, 899
- Arruda, F. See Barbosa, F. S., *et al.*
- Arthur Holly Compton, research physicist (*obituary*), S. K. Allison, 794
- Artificial radiation belt discussed in symposium at Goddard Space Center (*meeting report*), W. N. Hess and P. Nakada, 53
- Association affairs: 129th annual meeting, 910; Short history of AAAS meetings in Philadelphia, R. L. Taylor, 599
- Astronomy of the 20th century, O. STRUVE and V. ZEBERGS, *book review* by T. Page, 1321
- Atchley, W. A., and N. V. Bhagavan: Inhibition of antigen-antibody reactions by amino-carboxylic acids, 528
- Atlas of the British Flora, F. H. PERRING and S. M. WALTERS (Eds.), *book review* by H. G. Baker, 506
- Atlas, S. M. See Mark H. F.
- Atmospheric photochemical reactions in

- hibited by iodine, E. R. Stephens *et al.*, 831
- Atoll environment and ecology, H. J. WIENS, *book review* by K. O. Emery, 133
- Atomic spectra, H. G. KUHN, *book review* by J. E. Mack, 586
- Aurell, B. *See* Raymond, S.
- Australites and Antarctica, R. A. Schmidt, 443
- Aversive training: long-term effects, H. S. Hoffman *et al.*, 1269
- Axelrod, J. *See* Wolfe, D. E., *et al.*
- Azeotropic freeze-drying, H. E. Wistreich and J. A. Blake, 138
- Azuma, T., *et al.*: Membrane potential of toad ventricle: changes produced by vagal stimulation and acetylcholine, 895
- B**
- BABBIDGE, H. C., JR., and R. M. ROSENZWEIG, The federal interest in higher education, *book review* of, 581
- Baird, R. *See* Burnett, A. L., *et al.*
- Balotin, N. M., and J. R. DiPalma: Spontaneous electrical activity of *Dionaea muscipula*, 1338
- BAK, B.: Elementary introduction to molecular spectra, *book review* of, 128
- Baker, H. G.: *book review*: Flora of the British Isles, *Atlas of the British Flora*, 506
- Barbosa, F. S., *et al.*: *Schistosoma mansoni*: natural infection of cattle in Brazil, 831
- Barbosa, I. *See* Barbosa, F. S., *et al.*
- Bargmann, V., and L. Motz: On the recent discoveries concerning Jupiter and Venus (*letter*), 1350
- BARNARD, J. L., R. J. MENZIES and M. C. BACESCU, Abyssal Crustacea, *book review* of, 424
- Barondes, S. H., and M. W. Nirenberg: Fate of a synthetic polynucleotide directing cell-free protein synthesis I. Characteristics of degradation, 810; Fate of a synthetic polynucleotide directing cell-free protein synthesis II. Association with ribosomes, 813
- Barron, F.: *book review* of Creativity and intelligence, 673
- BARROW, G. M., Introduction to molecular spectroscopy, *book review* of, 128
- Bastien, T. W. *See* Anderson, J. J., *et al.*
- Bauer, S. H.: *book review*: Introduction to molecular spectroscopy, Elementary introduction to molecular spectra, 128
- BAUMAN, R. P., Absorption spectroscopy, *book review* of, 129
- Baume, L. J.: Embryogenesis of the human temporomandibular joint, 904
- Bearn, A. G.: *book review*: Genetics, Genetics, Evolution and genetics, 671
- Beatty, D. L. *See* Simmons, F. B.
- Beaver, A. J. *See* Lee, G. B., *et al.*
- Beck, C. B.: *book review* of Morphology and evolution of fossil plants, 1253
- Beetles, competition, and populations, T. Park, 1369
- Beetles of the Pacific Northwest. Pselaphidae and Diversicornia I, The, M. HATCH, *book review* by W. H. Anderson, 676
- Bell, M. E.: Ceramics (*meeting report*), 604
- Bellamy, A. W.: Stockpiling to survive a nuclear attack, 958
- Bender, M. L.: *book review* of Molecular biochemistry, 672
- Benirschke, K., *et al.*: Marrow chimerism in marmosets, 513
- BENSON, L., Plant taxonomy, *book review* of, 672
- Berg, T. E. *See* Meyer, G. H., *et al.*
- Bergman, R. A.: *book reviews*: Electron microscopy, 586; Introduction to electron microscopy, 1093
- Bergmann, P.: *book review* of Recent developments in general relativity, 134
- BERKELEY, E. C., The computer revolution, *book review* of, 806
- Bern, H. A. *See* Takasugi, N., *et al.*
- Berry, E. W.: *book review* of Geologie des gites minéraux, 588
- Bhagavan, N. V. *See* Atchley, W. A.
- BILLINGHAM, R. E., and W. K. SILVERS (Eds.), Transplantation of tissues and cells, *book review* of, 1325
- Binding of inert gas halogenide molecules, L. C. Allen, 892
- Binocular combination of projected images, E. H. Land and N. W. Daw, 589
- Biochemistry of intracellular parasitism, The, J. W. MOULDER, *book review* by E. Weiss, 25
- Biosynthesis of infectious tobacco mosaic virus ribonucleic acid in a cell-free medium, G. W. Cochran *et al.*, 46
- Birds of the Caribbean, R. P. ALLEN, *book review* by A. A. Allen, 1094
- BIRKS, J. B. (Ed.), Rutherford jubilee international conference, *book review* of, 674
- Blacet, F. E.: *book review* of Absorption spectroscopy, 129
- Blake, J. A. *See* Wistreich, H. E.
- Blood clotting: the force of retraction, E. Rubenstein, 1343
- Blood group A active substances in embryonated chicken eggs and their relation to egg-grown virus, G. F. Sprniger and H. Tritel, 687
- Blum, M. S., and J. P. Woodring: Secretion of benzaldehyde and hydrogen cyanide by the millipede *Pachydesmus crassicutis* (Wood), 512
- BOND, G. C., Catalysis by metals, *book review* of, 129
- Bone density measurements in vivo, D. E. Williams and R. L. Mason, 39
- Book reviewermanship (*letters*), E. Klingsberg; L. C. Briggs, 736
- Booth, B. A., and A. C. Sartorelli: Sarcoma 180 inhibition by combinations of 6-thioguanine and uracil mustard, 518
- Botts, T.: *book review* of Advanced calculus for applications, 1391
- Boulding, K. E.: Social science research (*letter*), 402; Conflict and defense, a general theory, *book review* of, 1385
- Bradley, C. C.: Human water needs and water use in America, 489
- Brewen, J. G.: X-ray-induced chromosome aberrations in the corneal epithelium of the Chinese hamster, 820
- Briggs, L. C.: Book reviewermanship (*letter*), 736
- Brittin, W. E.: *book reviews*: Fundamental problems in statistical mechanics, 1093; Studies in statistical mechanics, 965
- Britton, J. R.: *book review*: Fourier series, An introduction to Fourier analysis, 134
- BROWN, I. V. (Ed.), Joseph Priestly, *book review* of, 674
- Brown, S. C.: The teaching of science (*meeting report*), 703
- Brownfield, C. A. *See* Arnhoff, F. N., *et al.*
- Brownhill, L. E. *See* Benirschke, K., *et al.*
- Brush, C. F.: Pre-Columbian alloy objects from Guerrero, Mexico, 1336
- Bryson, V. *See* Vogel, H. J., *et al.*
- Buck, J. D., *et al.*: Marine bacteria with anti-yeast activity, 1339
- Budna, J. N. *See* Burns, D. A., *et al.*
- Buerger, M. J.: *book review* of Plasticity of crystals, 1390
- BUFFALOE, N. D., Principles of biology, *book review* of, 25
- Bugliarello, G., and J. W. Hayden: High-speed microcinematographic studies of blood flow in vitro, 981
- Bumpus, F. M. *See* Khairallah, P. A., *et al.*
- Bunnett, J. F.: *book review* of Physical organic chemistry, 967
- BURDETTE, W. J. (Ed.), Methodology in human genetics, *book review* of, 807
- Burnett, A. L., *et al.*: Method of introducing tritiated thymidine into the tissues of hydra, 825
- Burns, D. A., *et al.*: Simple apparatus for ultrafiltration, 138
- Burwell, R. L., Jr.: *book review* of Catalysis by metals, 129
- BUSCH, H.: An introduction to the biochemistry of the cancer cell, *book review* of, 673
- Butler, C. P.: The light of the atom bomb, 483
- BYCHOWSKY, B. E.: Monogenetic trematodes, *book review* of, 1325
- Byck, R., and E. Hearst: Adjustment of monkeys to five continuous days of work, 43
- C**
- Cairns, S. S.: *book review* of The encyclopedia of electronics, 1323
- Caldwell, D. K. *See* Caldwell, M. C., *et al.*
- Caldwell, M. C., *et al.*: High-energy sound associated with fright in the dolphin, 907
- Calvin, M., and G. M. Androes: Primary quantum conversion in photosynthesis, 867
- Carbon-isotope composition and the origin of calcareous coal balls, J. N. Weber and M. L. Keith, 900
- Carlin, S., *et al.*: Sound stimulation and its effect on dental sensation threshold, 1258
- Carpenter, M. S., *et al.*: Visual observations of nightglow from manned spacecraft, 978
- Carrison, L. C. *See* Sclar, C. B., *et al.*
- Carvalho, G. G., and M. P. de Cruz: Transfer of the "sex-ratio" factor in *Drosophila willistoni* by ingestion, 51
- CASSIDY, H. G., The sciences and the arts, *book review* of, 130
- Catalysis by imidazole of deuterium-hydrogen exchange in amide N-H groups, I. M. Klotz and B. H. Frank, 830
- Catalysis by metals, G. C. BOND, *book review* by R. L. Burwell, Jr., 129
- CAUSEY, G.: Electron microscopy, *book review* of, 586
- Cell disruption by ultrasound, D. E. Hughes and W. L. Nyborg, 108
- Ceramics (*meeting report*), M. E. Bell, 604
- CERNI, R. H., and L. E. FOSTER, Instrumentation for engineering measurement, *book review* of, 128
- Chaikin, J. D., *et al.*: Mapping a field of short-time visual search, 1327
- Chamberlin, J. M. *See* Burns, D. A., *et al.*
- Chandrasekhar, B. K. *See* Cochran, G. W., *et al.*
- Chapman, E. M. *See* Saxena, K. M., *et al.*
- Chemical bond approach course in the classroom, The, A. H. Livermore and F. L. Ferris, Jr., 1077
- Chemical indexing: an "atom total" based on cyclic features of structure, M. J. Ruhl, 592
- Chemical stratification in Lake Fryxell, Victoria Land, Antarctica, E. E. Angino *et al.*, 34
- Chemiluminescence of firefly luciferin

INDEX TO VOLUME 138

- without enzyme, H. H. Seliger and W. D. McElroy, 683
- Chernick, C. L., *et al.*: Fluorine compounds of xenon and radon, 136
- Chhina, G. S. *See* Anand, B. K., *et al.*
- Chidester, J. L. *See* Cochran, G. W., *et al.*
- Ching, K. K. *See* Ching, T. M.
- Ching, T. M., and K. K. Ching: Fatty acids in pollen of some coniferous species, 890
- Chlamydomonas*: colored excretion products, V. J. Cristofalo *et al.*, 809
- Chloroplasts and mitochondria in living plant cells: cinephotomicrographic studies, S. G. Wildman *et al.*, 434
- Cholinergic tracing of a central neural circuit underlying the thirst drive, A. E. Fisher and J. N. Coury, 691
- Cigarette smoking and arteriosclerosis, S. L. Wilens and C. M. Plair, 975
- Civilian nuclear power (*editorial*), P. H. Abelson, 1231
- Claassen, H. H. *See* Chernick, C. L., *et al.*
- Claman, H. N. *See* Talmage, D. W., *et al.*
- CLAPHAM, A. R., T. G. TUTIN, and E. F. WARBURG, Flora of the British Isles, *book review* of, 506
- Clark, H. E.: *book review* of The physiology of flowering, 24
- Clark, W. E.: Prediction of ultrafiltration membrane performance, 148
- Clendenning, J. R. *See* Levin, G. V., *et al.*
- Cochran, G. W., *et al.*: Biosynthesis of infectious tobacco mosaic virus ribonucleic acid in a cell-free medium, 46
- Coe, E. H., Jr. *See* Reddy, G. M.
- Cohen, C., *et al.*: Muscle contraction (*meeting report*), 534
- COHEN, E. G. D., Fundamental problems in statistical mechanics, *book review* of, 1093
- Cohen, E. P. *See* Talmage, D. W., *et al.*
- Cohen, I. B.: *book review*: Unpublished papers of Isaac Newton, History of science, 803
- Cohen, I. R. *See* Altshuller, A. P., *et al.*
- Coldwell, W. A.: The Florida Torreya: Efforts to preserve it (*letter*), 400
- Cole, L. C.: Life on Mars (*letter*), 1197
- Coleman, P. J., Jr., *et al.*: Interplanetary magnetic fields, 1099
- Collected works of Irving Langmuir, vols. 1-12, c. g. SUITS (Ed.), *book review* by E. U. Condon, 126
- Communication with queen honey bees by substrate sound, A. M. Wenner, 446
- Computer as aid in describing form in gastropod shells, D. M. Raup, 150
- Computer revolution, The, E. C. BERKELEY, *book review* by J. W. Mauchly, 806
- Condon, E. U.: *book review* of The collected works of Irving Langmuir, vols. 1-12, 126
- Conflict and defense, a general theory, K. BOULDING, *book review* by Q. Wright, 1385
- Conflict of interest (*editorial*), D. Wolfle, 865
- Congress of scientists on survival (*letters*), E. Leacock; T. Stonier; N. J. Holter; D. S. Greenberg, 710
- Connroy, L. E.: *book review*: The nature of atoms and molecules, Fundamental chemistry, 506
- Contributors can contribute too (*editorial*), R. V. Ormes, 481
- COON, C., Origin of the human races, *book review* of, 420
- Cooper, T., *et al.*: Heart autotransplantation: effect on myocardial catecholamine and histamine, 40
- Corbin, H. H. *See* Chaikin, J. D., *et al.*
- Cordeau, J. P. *See* Courville, J., *et al.*
- Cordon, T. C., and J. H. Schwartz: The fungus *Beauveria tenella*, 1265
- Correspondence between Stevens' terminal brightness function and the discriminability law, E. E. Green, 1274
- Corticospinal connections: postnatal development in the rhesus monkey, H. G. J. M. Kuypers, 678
- Cosmic dust, W. M. Alexander, 1098
- COTTON, F. A., and G. WILKINSON, Advanced inorganic chemistry, *book review* of, 887
- Coulombre, A. J. *See* Drachman, D. B.
- Courville, J., *et al.*: Functional organization of the brain stem reticular formation and sensory input, 973
- Coury, J. N. *See* Fisher, A. E.
- Cover pictures*: atomic fireball (26 Oct.); cloud over the Magdalena Mountains (19 Oct.); the Earth (9 Nov.); irradiated forest (2 Nov.); Mariner II (7 Dec.); Mt. Gardner (16 Nov.); Pleiades (21 Dec.); polyribosomes making hemoglobin (28 Dec.); radiation belt (5 Oct.); Shetland sheep dog (30 Nov.); starch-free chloroplast (23 Nov.); surface of sand (14 Dec.); xenon tetrafluoride crystals (12 Oct.)
- Craddock, C. *See* Anderson, J. J., *et al.*
- Creativity and intelligence, J. W. GETZELS and P. W. JACKSON, *book review* by F. Barron, 673
- CREESEY, G. B., Soviet potentials, *book review* of, 1322
- Cristofalo, V. J., *et al.*: *Chlamydomonas*: colored excretion products, 809
- Critical periods in behavioral development, J. P. Scott, 949
- CROMBIE, A. C., and M. A. HOSKIN (Eds.), History of science, *book review* of, 803
- Crowle, A. J.: Delayed hypersensitivity (*letter*), 1189
- Cullen, T. L. *See* Roser, F. X.
- Cunningham, M. P., *et al.*: Detection of antibodies in blood meals of hematophagous Diptera, 32
- Current problems in research*: Critical periods in behavioral development, J. P. Scott, 949; The Earth and cosmology, R. H. Dicke, 653; Structural and rheological properties of glass, H. F. Mark and S. M. Atlas, 413
- Cutting, W.: *book reviews*: Rapid microchemical identification methods in pharmacy and toxicology, 676; Steroid drugs, 26
- D**
- DANBY, J. M. A., Fundamentals of celestial mechanics, *book review* of, 1091
- Dauterman, W. C., and F. Matsunaga: Effect of malathion analogs upon resistant and susceptible *Culex tarsalis* mosquitoes, 694
- Davies, M. C. *See* Hash, J. H.
- Davis, L., Jr. *See* Coleman, P. J. Jr., *et al.*
- Davis, L. H. *See* Schroeder, C. A., *et al.*
- Davis, R. K.: Yardsticks (*letter*), 735
- Daw, N. W. *See* Land, E. H.
- DAY, M. C., and J. SELBIN, Theoretical inorganic chemistry, *book review* of, 675
- Day, R. A., and R. Shah: Penicillinase production in some bacilli, 1108
- Day, R. W. *See* Honig, W. K.
- Deaux, E. *See* Gormezano, I., *et al.*
- DE BOER, J., and G. E. UHLENBECK (Eds.), Studies in statistical mechanics, *book review* of, 965
- Decker, J. P.: Water relations of plant communities as a management factor for western watersheds, 532
- de Cruz, M. P. *See* Carvalho, G. G.
- Dedijer, S.: Measuring the growth of science, 781
- Defect in small millipore filters disclosed by new technique for isolating oral treponemes, W. J. Loesche and S. S. Socransky, 139
- DE GRAZIA, S., Of time, work, and leisure, *book review* of, 23
- Delayed hypersensitivity (*letters*), A. J. Crowle; D. W. Talmage *et al.*, 1189
- DELEVORYAS, T., Morphology and evolution of fossil plants, *book review* of, 1254
- DeLong, K. T.: Quantitative analysis of blood circulation through the frog heart, 693
- DeMars, R.: Sex chromatin mass in living, cultivated human cells, 980
- Dempsey, W. H.: Pollen tube growth in vivo as a measure of pollen viability, 436
- DeOme, K. B. *See* Takasugi, N., *et al.*
- de Serres, F. J.: Heterokaryon-incompatibility factor interaction in tests between *Neurospora* mutants, 1342
- De-Stalinization in Soviet physiology, I. D. London, 16
- Detection of antibodies in blood meals of hematophagous Diptera, M. P. Cunningham *et al.*, 32
- Deterrents and reinforcement, D. H. LAWRENCE and L. FESTINGER, *book review* by F. A. Logan, 807
- de Vaucouleurs, G.: *book review* of The universe, 675
- Dhaliwal, A. S. *See* Cochran, G. W., *et al.*
- Diamonds in the Dyalpur meteorite, M. E. Lipschutz, 1266
- Dicke, R. H.: The earth and cosmology, 653
- Dictionary of ecology, H. HANSON, *book review* by J. Major, 1326
- Diehl, F. *See* Burnett, A. L., *et al.*
- Diffusion of carbon monoxide through thin layers of hemoglobin solution, M. Mochizuki and R. E. Forster, 897
- DiPalma, J. R. *See* Balotin, N. M.
- Direct and transcallosal induction of touch memories in the monkey, F. F. Ebner and R. E. Myers, 51
- Discrimination and generalization on a dimension of stimulus difference, W. K. Honig and R. W. Day, 29
- Doi, R. H., and S. Spiegelman: Homology test between the nucleic acid of an RNA virus and the DNA in the host cell, 1270
- Dollar and the international monetary system, The, J. W. Angell, 1071
- Donaldson, W.: Tenate and dialysate (*letter*), 1188
- Drachman, D. B., and A. J. Coulombre: Method for continuous infusion of fluids into the chorioallantoic circulation of the chick embryo, 144
- Drowned miocene terrace in the Hawaiian Islands, H. W. Menard *et al.*, 896
- Drucker, P. F.: *book review* of Modern technology and civilization, 132
- Dufort, R. H.: On planarian behavior (*letter*), 400
- Dunkelman, L. *See* Carpenter, M. S., *et al.*
- Durand, D. P.: Virus neutralization test in a capillary tube, 448
- Durham, J. W. *See* Menard, H. W., *et al.*
- DURRANT, P. J., and B. DURRANT, Introduction to advanced inorganic chemistry, *book review* of, 675
- Dyckman, J. W.: *book review* of Megalopolis, 1089
- Dynamic physical chemistry, J. ROSE, *book review* by K. Sauer, 1255
- E**
- Early postglacial beavers in southeastern New England, C. A. Kaye, 906
- Earth and cosmology, R. H. Dicke, 653
- Ebner, F. F., and R. E. Myers: Direct and transcolosal induction of touch memories in the monkey, 51

INDEX TO VOLUME 138

v

- Economic development and social changes in South India, T. S. EPSTEIN, *book review* by E. Staley, 885
- Economics of education, The, J. VAIZEY, *book review* by B. A. Weisbrod, 1324
- Editorials:* Age and creativity, 947; Civilian nuclear power, 1231; Conflict of interest, 865; Contributors can contribute too, 481; The need for skepticism, 75; Plans for Science, 405; Science and the humanities, 1367; Science and society, 651; Time and talent, 1305; Too slow, 561; The Venus mission, 1069; Whose responsibility?, 7; Who teaches science?, 779
- Editors of *Science*: Instructions for contributors, 496
- Edsall, J. T. (*news and comment*): Nobel prize, 498
- Effect of glucose on the activity of hypothalamic "feeding centers," B. K. Anand *et al.*, 597
- Effect of malathion analogs upon resistant and susceptible *Culex tarsalis* mosquitoes, W. C. Dauterman and F. Matsumura, 694
- Effect of 1953 fallout in Troy, New York, upon milk and children's thyroids (*letter*), J. H. Lade, 732
- Effects of federal programs on higher education, The, H. ORLANS, *book review* by H. L. Enarson, 581
- Effects of ionizing radiation on terrestrial ecosystems, G. M. Woodwell, 572
- Effects of irradiation on metals, The, F. Seitz, 563
- Ehlig, C. F. *See* Gardner, W. R.
- Ehrlich, P. R. *See* Amadon, D., *et al.*
- Eiseley, L.: *book review* of Ideas on human evolution, 587
- Electroencephalogram in the permanently isolated forebrain of the cat, J. Villablanca, 44
- Electron microscopy, G. CAUSEY, *book review* by R. A. Bergman, 586
- Electron microscopy of *Staphylococcus aureus* treated with tetracycline, J. H. Hash and M. C. Davies, 828
- Elementary introduction to molecular spectra, B. BAK, *book review* by S. H. Bauer, 128
- Elements of probability and statistics, F. L. WOLF, *book review* by S. Kullback, 968
- ELLIS, G. P. and G. B. WEST (Eds.), Progress in medicinal chemistry, *book review* of, 1092
- Ellis, G. W.: Piezoelectric micromanipulators, 84
- ELWELL, W. T., and D. F. WOOD, The analysis of titanium, zirconium, and their alloys, *book review* of, 134
- Embryogenesis of the human temporomandibular joint, L. J. Baume, 904
- Emery, K. O.: *book review* of Atoll environment and ecology, 133
- Emory, K. P.: *book review* of Archaeology of Easter Island, 884
- Enarson, H. L.: *book review*: The federal interest in higher education, The effects of federal programs on higher education, 581
- Encyclopedia of electronics, The, C. SUSSKIND (Ed.), *book review* by S. S. Cairns, 1323
- Epstein, E., *et al.*: Interpretation of cation-exchange mechanisms (*letter*), 719
- EPSTEIN, T. S., Economic development and social changes in South India, *book review* of, 885
- Erratum: for C. Blincoe and V. R. Bohman, Bovine thyroid iodine-131 concentrations subsequent to Soviet nuclear weapon tests [137, 690 (31 Aug. 1962)], 580; for B. Droz and C. P. Leblond, Migration of proteins along the axons of the sciatic nerve [137, 1047 (1962)], 125; for publisher of new journal, *Ethnology* [138, 21 (1962)] 580; for 13 July editorial, 125
- Essig, A.: Flow through a permeable membrane (*letter*), 1183
- Ethylnodiol diacetate as a new, highly potent oral inhibitor of ovulation, G. Pincus *et al.*, 439
- Evaluation of isotope exchange by chromatography, J. Morávek *et al.*, 146
- Evoked responses to clicks and electroencephalographic stages of sleep in man, H. L. Williams *et al.*, 685
- Evolution and genetics, D. J. MERRELL, *book review* by A. G. Bearn, 671
- EWALD, P. P. (Ed.), Fifty years of x-ray diffraction, *book review* of, 1254
- Experimental cryophysics, F. E. HOARE, L. C. JACKSON, and N. KURTI (Eds.), *book review* by F. W. Hutchinson, 131
- Experimental morphine addiction: method for automatic intravenous injections in unrestrained rats, J. R. Weeks, 143
- Experimental study of the developing mammalian egg: removal of the zona pellucida, B. Mintz, 594
- Experimenters in the schoolroom, P. Morrison, 1307
- Experiments in personality, H. J. EYSENCK (Ed.), *book review* by S. R. Maddi, 1388
- Exploitation of natural animal populations, E. D. LE CREN and M. W. HOLDGATE (Eds.), *book review* by P. W. Frank, 1389
- Extrathyroidal iodide pump in tadpoles (*Rana grylio*), H. Lipner and S. Hazen, 898
- Extreme spindles: correlation of electroencephalographic sleep pattern with mental retardation, E. L. Gibbs and F. A. Gibbs, 1106
- EYSENCK, H. J. (Ed.), Experiments in personality, *book review* of, 1388
- F**
- Failla, P. McC: Recovery from radiation-induced delay of cleavage in gametes of *Arbacia punctulata*, 1341
- Fallout radionuclides in euphausiids, C. Osterberg, 529
- Fankuchen, I.: *book review* of Fifty years of x-ray diffraction, 1254
- Fate of a synthetic polynucleotide directing cell-free protein synthesis I. Characteristics of degradation, 810; II. Association with ribosomes, S. H. Barondes and M. W. Nirenberg, 813
- Fatty acids in pollen of some coniferous species, T. M. Ching and K. K. Ching, 890
- Federal interest in higher education, The, H. D. BABBIDGE, JR., and R. M. ROSENZWEIG, *book review* by H. L. Enarson, 581
- Feedback and nonfeedback (*letter*), J. B. Spofford, 456
- Ferris, F. L., Jr. *See* Livermore, A. H.
- Fields, P. R. *See* Chernick, C. L. *et al.*
- Fifty years of x-ray diffraction, P. P. EWALD (Ed.), *book review* by I. Fankuchen, 1254
- Filip, J. *See* Morávek, J., *et al.*
- Finkelstein, L. S.: *book review* of Preventing World War III, 1256
- Fisher, A. E., and J. N. Coury: Cholinergic tracing of a central neural circuit underlying the thirst drive, 691
- Fisher, D. E.: *book review* of Meteorites, 887
- Fishman, A. P. *See* Ingram, V. M., *et al.*
- Fission product radioactivity in the North Polar stratosphere, P. F. Gustafson *et al.*, 433
- Fitch, F. W. *See* Anders, E.
- Flamm, E., *et al.*: Tritium and helium-3 in solar flares and loss of helium from the earth's atmosphere, 48
- Fleshler, M. *See* Hoffman, H. S., *et al.*
- Flora, C. J.: "Grantitis" (*letter*), 1185
- Flora of the British Isles, A. R. CLAPHAM, T. G. TUTIN, and E. F. WARBURG, *book review* by H. G. Baker, 506
- Florida Torreya: Efforts to preserve it (*letter*), W. A. Coldwell, 400
- Flow through a permeable membrane (*letters*), A. Essig; L. F. Nims, 1183
- Fluorescence assay in biology and medicine, S. UNDENFRIEND, *book review* by H. Jaffe, 130
- Flourine compounds of xenon and radon, C. L. Chernick *et al.*, 136
- Fontaine, A. R.: Neurosecretion in the ophiuroid *Ophiopholis aculeata*, 908
- Force of response during ratio reinforcement, D. E. Mintz, 516
- Forster, R. E. *See* Mochizuki, M.
- Fosket, D. E. *See* Roberts, L. W.
- FOSTER, G. M., Traditional cultures and the impact of technological change, *book review* of, 131
- Four-electrode method for measuring the direct-current resistivity of ice, G. W. Gross, 520
- Fourier series, G. P. TOLSTOV, *book review* by J. R. Britton, 134
- Four-lead electrical resistance measurements in Bridgman anvils, H. Stromberg and G. Jura, 1344
- Fraenkel, G., and C. Hsiao: Hormonal and nervous control of tanning in the fly, 27
- Frank, B. H. *See* Klotz, I. M.
- Frank, L. A. *See* Van Allen, J. A.
- Frank, P. W.: *book review*: The exploitation of natural animal populations, Animal dispersion in relation to social behaviour, 1389
- Friedmann, H.: *book review* of The life of birds, 967
- Frontiers of modern biology, G. B. MOMENT, *book review* by C. S. Thornton, 885
- Fuentes, I. *See* Gormezano, I., *et al.*
- Functional organization of the brain stem reticular formation and sensory input, J. Courville *et al.*, 973
- Fundamental chemistry, D. H. ANDREWS and R. J. KOKES, *book review* by L. E. Conroy, 506
- Fundamental problems in statistical mechanics, E. G. D. COHEN, *book review* by W. E. Brittin, 1093
- Fundamentals of celestial mechanics, J. M. A. DANBY, *book review* by W. Liller, 1091
- Fungus *Beauveria tenella*, The T. C. Cordon and J. H. Schwartz, 1265
- Furst, A.: *book review*: Progress in medicinal chemistry, Advances in Pharmacology, 1092
- G**
- Gaines, T. B.: Poisoning by organic phosphorus pesticides potentiated by phenothiazine derivatives, 1260
- Gall, J. G.: *book review* of The organization of cellular activity, 1389
- Galston, A. W., and R. Kaur: Interactions of pectin and protein in the heat coagulation of proteins, 903
- GARATTINI, S., and P. A. SHORE (Eds.), Advances in pharmacology, *book review* of, 1092
- Garcia, C. R. *See* Pincus, G., *et al.*
- Gardner, W. R., and C. F. Ehlig: Impedance to water movement in soil and plant, 522
- Gas-flow counting of carbon-14 compounds: an improved technique, H. J. Perkins and M. D. MacDonald, 1259
- General disruption resulting from electrical stimulus of ventromedial hypothalamus, F. B. Krasne, 822

- Genetic and environmental variation: effect on pigments of selected maize mutants, L. B. Richardson *et al.*, 1333
- Genetics, I. H. HERSKOWITZ, *book review* by A. G. Bearn, 671
- Genetics, R. C. KING, *book review* by A. G. Bearn, 671
- Geography of manufacturing, A., E. W. MILLER (Ed.), *book review* by M. D. Thomas, 422
- Geologie des gites minéraux, E. RAGUIN, *book review* by E. W. Berry, 588
- Geology of Queensland, The, D. HILL and A. K. DENMEAD (Eds.), *book review* by C. Teichert, 965
- Geotropic stimulation: effects on wound vessel differentiation, L. W. Roberts and D. E. Fosket, 1264
- Gergly, J. *See* Cohen, C., *et al.*
- Gershon, A. *See* Carlin, S., *et al.*
- GETZELS, J. W., and P. W. JACKSON, Creativity and intelligence, *book review* of, 673
- Giacomoni, D., and S. Spiegelman: The origin and biologic individuality of the genetic dictionary, 1328
- Gibbs, E. L., and F. A. Gibbs: Extreme spindles: correlation of electroencephalographic sleep pattern with mental retardation, 1106
- Gibbs, F. A. *See* Gibbs, E. L.
- Gillispie, C. C.: *book review* of The structure of scientific revolutions, 1251
- Ginzberg, E., *editorial*: Time and talent, 1305
- Gluck, L., and M. V. Kulovich: RNA: a marker in embryonic differentiation, 530
- Gnedenko, B. V.: The theory of probability, *book review* of, 422
- GOLDEN, S., Introduction to theoretical physical chemistry, *book review* of, 1255
- Goldhammer, P.: *book review* of Rutherford jubilee international conference, 674
- Goldstein, G.: Moon illusion: an observation, 1340
- Gomberg, W.: Social science research (*letter*), 402
- Goodnight, C. J. *See* Johanningsmeier, A. G.
- Gómezano, I., *et al.*: Nictitating membrane: classical conditioning and extinction in the albino rabbit, 33
- GOTTMANN, J., Megalopolis, *book review* of, 1089
- "Grantitus" (*letter*), C. J. Flora, 1185
- Graubard, M.: *book review* of The senses of animals and men, 423
- Great Britain: geographical essays, J. B. MITCHELL, *book review* by V. B. Proudfoot, 1322
- Green, E. E.: Correspondence between Stevens' terminal brightness function and the discriminability law, 1274
- Green, I. J.: Serial propagation of influenza B (Lee) virus in a transmissible line of canine kidney cells, 42
- Green, P. B.: Mechanism for plant cellular morphogenesis, 1404
- Greenberg, D. S. (*news and comment*): Cuba, 670; French nuclear arms, 18; manpower race, 1314; missile episode, 577; nuclear energy for India, 1245; NIH foreign grants, 879; penguins, and politics, 500; "Population explosion," 960; science and congress, 417; science and foreign affairs, 122; supersonic transport, 1083; U.S. endorses U.N. birth control aid, 1249; U.S. Geological Survey, 1380; U.S. Public Health Service grant policy, 1379; Who runs America?, 797; *letter*: Congress of scientists on survival, 710
- Grissom, R. J., *et al.*: Memory for verbal material: effects of sensory deprivation, 429
- Gross, G. W.: Four-electrode method for measuring the direct-current resistivity of ice, 520
- "Gulliver"—A quest for life on Mars, G. V. Levin *et al.*, 114
- Gustafson, P. F., *et al.*: Fission product radioactivity in the North Polar stratosphere, 433
- Guttation fluid: effects on growth of *Claviceps purpurea* in vitro, R. W. Lewis, 690
- ## H
- HAGEN, E. E., On the theory of social change: how economic growth begins, *book review* of, 502
- Haines, B. W. *See* Klein, F., *et al.*
- HALL, A. R., and M. B. HALL (Eds.), Unpublished papers of Isaac Newton, *book review* of, 803
- Hall, C. E. *See* Warner, J. R., *et al.*
- HALMOS, P. R., Algebraic logic, *book review* of, 886
- Halpern, M.: Potassium-argon dating of plutonic bodies in Palmer Peninsula and southern Chile, 1261
- HAMMING, R. W., Numerical methods for scientists and engineers, *book review* of, 1091
- Handling, reducing, and interpreting geophysical data (*meeting report*), G. J. F. MacDonald, 1276
- Hanlon, C. R. *See* Cooper, T., *et al.*
- HANSON, H., Dictionary of ecology, *book review* of, 1326
- Hanson, N. R.: Scientists and logicians: a confrontation, 1311
- Harcum, E. R., and M. L. Jones: Letter recognition within words flashed left and right of fixation, 444
- Harington, J. S.: Natural occurrence of amino acids in virgin crocidolite asbestos and banded ironstone, 521
- Harker, D.: Chemistry (*news and comment*), 668
- Harley, J. M. B. *See* Cunningham, M. P., *et al.*
- Harrison, J. M., *et al.*: Second order neurons in the acoustic nerve, 893
- Hash, J. H., and M. C. Davies: Electron microscopy of *Staphylococcus aureus* treated with tetracycline, 828
- Hasler, A. D.: Limnologists and oceanographers discuss lakes, rivers, and aquatic life (*meeting report*), 698
- HATCH, M., The beetles of the Pacific Northwest. Pselaphidae and Diversicornia I, *book review* of, 676
- Haugen, R. M. *See* Caldwell, M. C., *et al.*
- Hayashi, H. *See* Azuma, T., *et al.*
- Hayden, J. W. *See* Bugliarello, G.
- Hazen, S. *See* Lipner, H.
- Hearst, E. *See* Byck, R.
- Heart autotransplantation: effect on myocardial catecholamine and histamine, T. Cooper *et al.*, 40
- Heath, J. E.: Temperature-independent morning emergence in lizards of the genus *Phrynosoma*, 891
- Hedgpeth, J. W.: *book review* of Abyssal Crustacea, 424
- Heim, A. H. *See* Levin, G. V., *et al.*
- HEIFFERICH, F. G.: Ion exchange, *book review* of, 133
- Hemoglobin: molecular structure and function, biosynthesis, evolution and genetics (*meeting report*), V. M. Ingram *et al.*, 996
- Henkin, L.: Are logic and mathematics identical?, 788; *book review* of Algebraic logic, 886
- Henkin, R. I., and G. F. Powell: Increased sensitivity of taste and smell in cystic fibrosis, 1107
- Herrnstein, R. J.: Placebo effect in the rat, 667
- HERSKOWITZ, I. H., Genetics, *book review* of, 671
- Hess, W. N., and P. Nakada: Artificial radiation belt discussed in symposium at Goddard Space Center (*meeting report*), 53
- Heterokaryon-incompatibility factor interaction in tests between *Neurospora* mutants, F. J. de Serres, 1342
- HEYERDAHL, T., and E. N. FERNDON, JR. (Eds.), Archaeology of Easter Island, *book review* of, 884
- High-energy sound associated with fright in the dolphin, M. C. Caldwell, *et al.*, 907
- Higher-pressure mass spectrometry, T. W. Martin *et al.*, 77
- High-speed microcinematographic studies of blood flow in vitro, G. Bugliarello and J. W. Hayden, 981
- HILDEBRAND, F. B., Advanced calculus for applications, *book review* of, 1391
- HILL, D., and A. K. DENMEAD (Eds.), The geology of Queensland, *book review* of, 965
- HILLMAN, W. S., The physiology of flowering, *book review* of, 24
- HINE, J., Physical organic chemistry, *book review* of, 967
- Hippocampal ablation and passive avoidance, R. L. Isaacson and W. O. Wickelgren, 1104
- History of American pathology, A. E. R. LONG, *book review* by F. C. McLean, 1390
- History of science, A. C. CROMBIE and M. A. HOSKIN (Eds.), *book review* by I. B. Cohen, 803
- HOARE, F. E., L. C. JACKSON, and N. KURIT (Eds.), Experimental cryophysics, *book review* of, 131
- Hodges, D. R. *See* Klein, F., *et al.*
- Hoffman, H. S., *et al.*: Aversive training: long-term effects, 1269
- Hoffman, K.: *book review* of Spectral theory, 132
- Holm, D. A.: Sand dune alignment (*letter*), 478
- Holm, R. W. *See* Amadon, D., *et al.*
- Holter, N. J.: Congress of scientists on survival (*letter*), 710
- HOLZBUCK, W., Instruments for measurement and control, *book review* of, 135
- Holtzman, W. H.: *book review* of Psychological differentiation, 1092
- Homology test between the nucleic acid of an RNA virus and the DNA in the host cell, R. H. Doi and S. Spiegelman, 1270
- Honda, S. I. *See* Wildman, S. G., *et al.*
- Hongladarom, T. *See* Wildman, S. G., *et al.*
- Honig, W. K., and R. W. Day: Discrimination and generalization on a dimension of stimulus difference, 29
- Hood, D. W. *See* Park, K., *et al.*
- Hormonal and nervous control of tanning in the fly, G. Fraenkel and C. Hsiao, 27
- How conferences?, D. K. C. MacDonald, 665
- HOWELLS, W. (Ed.), Ideas on human evolution, *book review* of, 587
- Hsiao, C. *See* Fraenkel, G.
- HUANG, W. T., Petrology, *book review* of, 1253
- Hughes, D. E., and W. L. Nyborg: Cell disruption by ultrasound, 108
- Human water needs and water use in America, C. C. Bradley, 489
- HUNT, J. MCV., Intelligence and experience, *book review* of, 24
- Hutchinson, F. W.: *book review* of Experimental cryophysics, 131
- Hybrid enzymes and isozymes (*letter*), S. L. Allen, 714
- Hyman, H. H. *See* Chernick, C. L., *et al.*
- Hypersexual activity induced in females of the cockroach *Nauphoeta cinerea*, L. M. Roth, 1267

INDEX TO VOLUME 138

I

- Ideas on human evolution, W. HOWELLS (Ed.), *book review* by L. Eiseley, 587
 Impedance to water movement in soil and plant, W. R. Gardner and C. F. Ehlig, 522
 Imprinting by force, C. E. Rice, 680
 Increased incidence of anencephalus and spina bifida in siblings of affected cases, S. Milham, Jr., 593
 Increased sensitivity of taste and smell in cystic fibrosis, R. I. Henkin and G. F. Powell, 1107
 Individual in history and in cultural evolution, *The (letters)*, R. K. Wetherington; T. S. Kuhn, 716
 Informational macromolecules (*meeting report*), H. J. Vogel *et al.*, 912
 Ingraham, R. *See* Carlin, S., *et al.*
 Ingram, V. M., *et al.*: Hemoglobin: molecular structures and function, biosynthesis, evolution and genetics (*meeting report*), 996
 Inhibition of antigen-antibody reactions by aminocarboxylic acids, W. A. Atchley and N. V. Bhagavan, 528
 Inspiration of science, *The, SIR G. THOMSON*, *book review* by D. L. Anderson, 966
 Instructions for contributors, Editors of *Science*, 496
 Instrumentation (*meeting report*), T. E. Kenney and E. R. Lippincott, 1174
 Instrumentation for engineering measurement, R. H. CERNI and L. E. FOSTER, *book review* by R. J. Smith, 128
Instruments and techniques: Higher-pressure mass spectrometry, T. W. Martin *et al.*, 77; Piezoelectric micromanipulators, G. W. Ellis, 84
 Instruments for measurement and control, W. HOLZBUCK, *book review* by R. O. Smith, 135
 Intelligence and experience, J. MCV. HUNT, *book review* by D. Wolfe, 24
 Interactions of pectin and protein in the heat coagulation of proteins, A. W. Galston and R. Kaur, 903
 Interplanetary magnetic fields, P. J. Coleman, Jr., *et al.*, 1099
 Interpretation of cation-exchange mechanisms (*letters*), P. S. Antal; E. Epstein *et al.*, 719
 Inter-tissue complementation: A simple technique for direct analysis of gene-action sequence, G. M. Reddy and E. H. Coe, Jr., 149
 Introduction to advanced inorganic chemistry, P. J. DURRANT and B. DURRANT, *book review* by G. B. Kauffman, 675
 Introduction to the biochemistry of the cancer cell, An, H. BUSCH, *book review* by R. J. Winzler, 673
 Introduction to electron microscopy, S. WISCHNITZER, *book review* by R. A. Bergman, 1093
 Introduction to Fourier analysis, An, R. D. STUART, *book review* by J. R. Britton, 134
 Introduction to molecular spectroscopy, G. M. BARROW, *book review* by S. H. Bauer, 128
 Introduction to physical geology, C. R. LONGWELL and R. F. FLINT, *book review* by B. McKee, 505
 Introduction to set theory and topology, K. KURATOWSKI, *book review* by C. B. Allendoerfer, 674
 Introduction to theoretical physical chemistry, S. GOLDEN, *book review* by K. Sauer, 1255
 Iodine-131 levels in milk (*letters*), F. W. Lengemann; R. E. Lapp, 1194
 Ion exchange, F. G. HELFFERICH, *book review* by H. F. Walton, 133
 Iowa radiation experiment, *The, J. A. Van Allen and L. A. Frank*, 1097

J

- Jablonski, S.: *book review* of *Slownik Lekarski: Angielsko-Polski i Polsko-Angielski*, 424
 Jacobs, H. R.: Jamin and "true" meniscal resistances: a simple meniscus apparatus, 140
 Jacobson, K. B.: Ribonucleotides of RNA: separation by chromatography on sheets of diethylaminoethylcellulose, 515
 Jaffe, H.: *book review* of *Fluorescence assay in biology and medicine*, 130
 Jamin and "true" meniscal resistances: a simple meniscus apparatus, H. R. Jacobs, 140
 Janke, W. E. *See* Lee, G. B., *et al.*
 JEDRASZKO, S.: *Slownik Lekarski: Angielsko-Polski i Polsko-Angielski*, *book review* of, 424
 Jelinek, M. *See* Cooper, T., *et al.*
 Jensen, P. K. *See* Hoffman, H. S., *et al.*
 Johanningsmeier, A. G., and C. J. Goodnight: Use of iodine-131 to measure movements of small animals, 147
 Johnson, D. L., and A. L. Kobler: The man-computer relationship, 873
 JOHNSON, W. H., and W. C. STEERE (Eds.): *This is life*, *book review* of, 885
 Jones, I. R. *See* Kahn, B., *et al.*
 Jones, M. L. *See* Harcum, E. R.
 Jones, W. I. *See* Klein, F., *et al.*
 Jordan, G. F.: Sand dune alignment (*letter*), 478
 Joseph Priestley, I. V. BROWN (Ed.), *book review* by L. P. Williams, 674
 Judson, S.: *book review* of *The Morphology of the Earth*, 806
 Juncosa, M. L.: *book review* of *Numerical methods for scientists and engineers*, 1091
 Jura, G. *See* Stromberg, H.

K

- Kahn, B., *et al.*: Radioiodine in milk of cows consuming stored feed and of cows on pasture, 1334
 Kamp, K. M. *See* Buck, J. D., *et al.*
 Kaplan, R. *See* Kaplan, S.
 Kaplan, S., and R. Kaplan: Skin resistance recording in the unrestrained rat, 1403
 Kauffman, G. B.: *book review*: Theoretical inorganic chemistry, *Introduction to advanced inorganic chemistry*, 675
 Kaur, R. *See* Galston, A. W.
 Kay, E. *See* Schroeder, C. A., *et al.*
 Kaye, C. A.: Early postglacial beavers in southeastern New England, 906
 Keener, R. B. *See* Gustafson, P. F., *et al.*
 Keith, M. L. *See* Weber, J. N.
 Kelleher, P. C., and C. A. Villee: A protein present in fetal but not in maternal rat serum, 510
 Kelly, J. S.: Moving earth and rock with a nuclear device, 50
 Kelly, J. W.: Photographic cytophotometry with a dual microscope, 1272
 Kenney, T. E., and E. R. Lippincott: Instrumentation (*meeting report*), 1174
 Khairallah, P. A., *et al.*: Angiotensin II: its metabolic fate, 523
 KING, L. C., *The morphology of the Earth*, *book review* of, 806
 KING, R. C., *Genetics*, *book review* of, 671; *letter*: Overtrimmed cover picture, 734

- KLASSEN-NEKLYUDOVA, K. V. (Ed), Plasticity of crystals, *book review* of, 1390
 Klein, F., *et al.*: Anthrax toxin: causative agent in the death of rhesus monkeys, 1331
 Klingsberg, E.: Book reviewmanship (*letter*), 736
 Klotz, I. M., and B. H. Frank: Catalysis by imidazole of deuterium-hydrogen exchange in amide N-H groups, 830
 Kobler, A. L. *See* Johnson, D. L.
 KOPAL, A. (Ed.), *Advances in astronomy and astrophysics*, *book review* of, 966
 Kopczynski, S. L. *See* Altshuller, A. P., *et al.*
 Kornreich, L. D. *See* Cristofalo, V. J., *et al.*
 KOSOWER, E. M., *Molecular biochemistry*, *book review* of, 672
 Krasne, F. B.: General disruption resulting from electrical stimulus of ventromedial hypothalamus, 822
 Krinsley, D., and T. Takahashi: Surface textures of sand grains—an application of electron microscopy: glaciation, 1262
 KUHN, H. G., *Atomic spectra*, *book review* of, 586
 KUHN, T. S., *The structure of scientific revolutions*, *book review* of, 1251; *letter*: The individual in history and in cultural evolution, 716
 KUIPER, G. P. (Ed.), *Stars and stellar systems*, *book review* of, 127
 Kullback, S.: *book review* of *Elements of probability and statistics*, 968
 Kulovich, M. V. *See* Gluck, L.
 KURATOWSKI, K., *Introduction to set theory and topology*, *book review* of, 674
 KUYPER, C. M. A., *The organization of cellular activity*, *book review* of, 1389
 Kuypers, H. G. J. M.: Corticospinal connections: postnatal development in the rhesus monkey, 678

L

- Lactic and malic dehydrogenases in human fetal tissues, B. Wiggert and C. A. Villee, 509
 Lade, J. H.: Effect of 1953 fallout in Troy, New York, upon milk and children's thyroids (*letter*), 732
 Lampen, J. O. *See* Vogel, H. J., *et al.*
 Land, E. H., and N. W. Daw: Binocular combination of projected images, 589
 Lapp, R. E.: Iodine-131 levels in milk (*letter*), 1194
 Laughlin, W. S.: *book review* of *The physical anthropology of Ceylon*, 505
 LAWRENCE, D. H., and L. FESTINGER, *Determinants and reinforcement*, *book review* of, 807
 Leacock, E.: Congress of scientists on survival (*letter*), 710
 LE CREN, E. D., and M. W. HOLDGATE (Eds.), *The exploitation of natural animal populations*, *book review* of, 1389
 Lee, C. C.: Uptake of strontium-85 by alfalfa, 41
 Lee, G. B., *et al.*: Particle-size analysis of Valders drift in eastern Wisconsin, 154
 Lee, M. H. *See* Cochran, G. W., *et al.*
 Leiderman, P. H., and D. Shapiro: Application of a time series statistic to physiology and psychology, 141
 Lengemann, F. W.: Iodine-131 levels in milk (*letter*), 1194
 Leon, H. V. *See* Arnhoff, F. N., *et al.*
 Letter recognition within words flashed left and right of fixation, E. R. Harcum and M. L. Jones, 444
 Levin, G. V., *et al.*: "Gulliver"—A quest for life on Mars, 114
 Lewis, R. W.: Guttation fluid: effects on growth of *Claviceps purpurea* in vitro, 690

INDEX TO VOLUME 138

- Li, C. C.: *book review* of Methodology in human genetics, 807
 Li, C. H. *See* Stewart, J.
 Libby, W. F. *See* Flamm, E., et al.
 Life of birds, The, J. C. WELTY, *book review* by H. Friedmann, 967
 Life on Mars (*letters*), S. A. Zahler; L. C. Cole; R. V. Rice, 1197
 Light and the asexual reproduction of *Pilobolus*, R. M. Page, 1238
 Light of the atom bomb, The, C. P. Butler, 483
 Liller, W.: *book review* of Fundamentals of celestial mechanics, 1091
 Limnologists and oceanographers discuss lakes, rivers, and aquatic life (*meeting report*), A. D. Hasler, 698
 Lincoln, R. E. *See* Klein, F., et al.
 LINDSEY A., Socialized medicine in England and Wales, *book review* of, 504
 Lingefelter, R. E. *See* Flamm, E., et al.
 Linnell, R. H. *See* Stephens, E. R., et al.
 Linsley, R. K.: *book review* of The value of water in alternative uses, 1253
 Lipner, H., and S. Hazen: Extrathyroidal iodide pump in tadpoles (*Rana grylio*), 898
 Lippincott, E. R. *See* Kenney, T. E.
 Lipschutz, M. E.: Diamonds in the Dyallpur meteorite, 1266
 Littlepage, J. L. *See* Meyer, G. H., et al.
 Livermore, A. H., and F. L. Ferris, Jr.: The chemical bond approach course in the classroom, 1077
 Livson, N., et al.: Pooled estimates of parent-child correlations in stature from birth to maturity, 818
 Lloyd, T.: *book review* of Soviet potentials, 1322
 Localizing tritiated norepinephrine in sympathetic axons by electron microscopic autoradiography, D. E. Wolfe et al., 440
 Loesche, W. J., and S. S. Socransky: Defect in small millipore filters disclosed by new technique for isolating oral treponemes, 139
 Logan, F. A.: *book review* of Deterrents and reinforcement, 807
 London, I. D.: De-Stalinization in Soviet physiology, 16
 LONG, E. R., A history of American pathology, *book review* of, 1390
 LONGWELL, C. R., and R. F. FLINT: Introduction to physical geology, *book review* of, 505
 LORCH, E. R., Spectral theory, *book review* of, 132
 Lost tribes and sunken continents, R. WAUCHOPE, *book review* by M. W. Stirling, 805
 LOWENSTEIN, O. (Ed.), Advances in comparative physiology and biochemistry, *book review* of, 503
 Luetzelschwab, J. *See* Telfair, D.
 Lumsden, W. H. R. *See* Cunningham, M. P., et al.
 Lunar influence on precipitation patterns (*letter*), J. E. Newman, 1352
 Luten, D. B.: *book review* of Trends in natural resource commodities, 587
 Lysergic acid diethylamide: its effects on a male Asiatic elephant, L. J. West, et al., 1100
- M**
- MacDonald, D. K. C.: How conferences?, 665
 MacDonald, G. J. F.: Handling, reducing, and interpreting geophysical data (*meeting report*), 1276; *See* Flamm, E., et al.
 MacDonald, M. D. *See* Perkins, H. J.
 MacIver, R. M.: *book review*: Of time, work, and leisure, 23
- Mack, J. E.: *book review* of Atomic spectra, 586
 Maddi, S. R.: *book review* of Experiments in personality, 1388
 Maguire, M. P.: Pachytene and diakinesis behavior of the isochromosomes 6 of maize, 445
 Mahlandt, B. G. *See* Klein, F., et al.
 Maintenance of globulin levels in x-irradiated rabbits after immunization, M. B. Rittenberg and E. L. Nelson, 519
 Major, J.: *book review* of Dictionary of ecology, 1326
 Malic dehydrogenases in sea urchin eggs, R. O. Moore and C. A. Villee, 508
 Malm, J. G. *See* Chernick, C. L., et al.
 Man-computer relationship, The, D. L. Johnson and A. L. Kobler, 873
 Mandriota, F. J., et al.: Visual velocity discrimination: effects of spatial and temporal cues, 437
 Manifestations of "activated" sleep in the rat, J. E. Swisher, 1110
 Manning, W. M. *See* Chernick, C. L., et al.
 Mapping a field of short-time visual search, J. D. Chaikin et al., 1327
 Marine bacteria with anti-yeast activity, J. D. Buck et al., 1399
 Mark, H. F., and S. M. Atlas: Structural and rheological properties of glass, 413
 Marrow chimerism in marmosets, K. Benirschke et al., 513
 Martin, P. S.: Archeological investigations in east central Arizona, 826
 Martin, T. W., et al.: Higher-pressure mass spectrometry, 77
 Martonosi, A. *See* Cohen, C., et al.
 MASON, B., Meteorites, *book review* of, 887
 Mason, R. G., Jr.: Pathogenesis of thrombosis: platelet contribution (*meeting report*), 833
 Mason, R. L. *See* Williams, D. E.
 Mathematics for physicists and engineers, *book review* by R. F. Rinehart, 1324
 Matheson, M. S. *see* Chernick, C. L., et al.
 Mathews, R. D. *See* Skinner, W. A., et al.
 Mathewson, J. H.: Science for the citizen: an educational problem, 1375
 Matsuda, K. *See* Azuma, T., et al.
 Matsumura, F. *See* Dauterman, W. C.
 Mauchly, J. W.: *book review*: Computer revolution, Thinking machine, 806
 Mayr, E.: *book review* of Origin of the human races, 420
 McElroy, W. D. *See* Seliger, H. H.
 McGinnis, G. A. *See* Gustafson, P. F., et al.
 McKee, B.: *book review* of Introduction to physical geology, 505
 McLean, F. C.: *book review* of A history of American pathology, 1390
 McNeill, D. *See* Livson, N., et al.
 Measuring the growth of science, S. Djerjer, 781
 Mechanism for plant cellular morphogenesis, P. B. Green, 1404
Meeting reports: Acarology, 538; Artificial radiation belt discussed in symposium at Goddard Space Center, 53; Ceramics, 604; Handling, reducing, and interpreting geophysical data, 1276; Hemoglobin: molecular structure and function, biosynthesis, evolution and genetics, 996; Informational macromolecules, 912; Instrumentation, 1174; Limnologists and oceanographers discuss lakes, rivers, and aquatic life, 698; Muscle contraction, 534; Neurophysiology: evaluating the comparative approach, 449; Pathogenesis of thrombosis: platelet contribution, 833; Quantum chemistry and solid state physics, 1407; The teaching of science, 703; Treatment of irradiated primates, 538
- Megalopolis, J. GOTTMAN, *book review* by J. W. Dyckman, 1089
 Mellen, W. J.: Terminology for the anterior pituitary hormones (*letter*), 723
 Melton, C. E. *See* Martin, T. W., et al.
 Membrane potential of toad ventricle: changes produced by vagal stimulation and acetylcholine, T. Azuma et al., 895
 Memory for verbal material: effects of sensory deprivation, R. J. Grissom et al., 429
 Menard, H. W., et al.: A drowned miocene terrace in the Hawaiian Islands, 896
 MERRELL, D. J., Evolution and genetics, *book review* of, 671
 Meteorites, B. MASON, *book review* by D. E. Fisher, 887
 Method for continuous infusion of fluids into the choriollantoic circulation of the chick embryo, D. B. Drachman and A. J. Coulombre, 144
 Method of introducing tritiated thymidine into the tissues of hydra, A. L. Burnett et al., 825
 Methodology in human genetics, W. J. BURDETTE (Ed.), *book review* by C. C. Li, 807
 Meyer, G. H., et al.: Antarctica: the microbiology of an unfrozen saline pond, 1103
 Meyers, S. P. *See* Buck, J. D., et al.
 Miles, M. J.: *book review* of The analysis of titanium, zirconium, and their alloys, 134
 Milham, S., Jr.: Increased incidence of anencephalus and spina bifida in siblings of affected cases, 593
 MILLER, E. W. (Ed.), A geography of manufacturing, *book review* of, 422
 MILNE L., and M. MILNE, The senses of animals and men, *book review* of, 423
 Minimal dosage of iodide required to suppress uptake of iodine-131 by normal thyroid, K. M. Saxena et al., 430
 Mintz, B.: Experimental study of the developing mammalian egg: removal of the zona pellucida, 594
 Mintz, D. E.: Force of response during ratio reinforcement, 516; *See* Mandriota, F. J., et al.
 Mishra, D. *See* Mohanty, P. K.
 Mission of Mariner II: preliminary observations: Cosmic dust, 1098; Interplanetary magnetic fields, 1099; Iowa radiation experiment, The, 1097; Profile of events, 1095; Solar plasma experiment, 1095
 MITCHELL, J. B., Great Britain: geographical essays, *book review* of, 1322
 Mizelle, J. D.: *book review* of Monogenetic trematodes, 1325
 Mochizuki, M., and R. E. Forster: Diffusion of carbon monoxide through thin layers of hemoglobin solution, 897
 Modern technology and civilization, C. R. WALKER, *book review* by P. F. Drucker, 132
 Mohanty, P. K., and D. Mishra: Post-vernacularization seed treatment with vitamins in *Vigna catjang*, 902
 Molecular biochemistry, E. M. KOSOWER, *book review* by M. L. Bender, 672
 Molecular designing of materials, A. R. von Hippel, 91
 MOMENT, G. B., Frontiers of modern biology, *book review* of, 885
 Monogenetic trematodes, B. E. BYCHOWSKY, *book review* by J. D. Mizelle, 1325
 Moon illusion: an observation, G. Goldstein, 1340
 Moore, R. O., and C. A. Villee: Malic dehydrogenases in sea urchin eggs, 508
 Morávek, J., et al.: Evaluation of isotope exchange by chromatography, 146
 Morlock, H. C., Jr. *See* Williams, H. L., et al.

- Morphology and evolution of fossil plants, T. DELEVORYAS, *book review* by C. B. Beck, 1254
- Morphology of the Earth, The, L. C. KING, *book review* by S. Judson, 806
- Morrison, P.: Experimenters in the schoolroom, 1307
- Morrow, M. B. *See* Meyer, G. H., *et al.*
- Motz, L. *See* Bargmann, V.
- MOULDER, J. W., The biochemistry of intracellular parasitism, *book review* of, 25
- MOUSSA, P., The underprivileged nations, *book review* of, 504
- Moving earth and rock with a nuclear device, J. S. Kelly, 50
- Mullet, G. M., and C. R. Nodding: Plotting kinetic data to determine reaction order and specific rate constant, 1346
- Muscle action potentials: a technique for recording in situ, J. Schainbaum, 905
- Muscle contraction (*meeting report*), C. Cohen *et al.*, 534
- Myers, R. E. *See* Ebner, F. F.
- N**
- Naegele, J. A.: Acarology (*meeting report*), 538
- Nakada, P. *See* Hess, W. N.
- National Academy of Sciences, Academy abstracts, 983
- Natural occurrence of amino acids in virgin crocidolite asbestos and banded iron-stone, J. S. Harrington, 521
- Nature of atoms and molecules, The, E. C. SCOTT and F. A. KANDA, *book review* by L. E. Conroy, 506
- Nature of mathematics, The, M. Rees, 9
- NAUKOWE, P. W., Recent developments in general relativity, *book review* of, 134
- Need for skepticism, The (*editorial*), P. H. Abelson, 75
- Nejedly, Z. *See* Morávek, J., *et al.*
- Nelson, E. L. *See* Rittenberg, M. B.
- Neugebauer, M., and C. W. Snyder: Solar plasma experiment, 1095
- Neurophysiology: evaluating the comparative approach (*meeting report*), C. L. Prosser, 449
- Neurosecretion in the ophiuroid *Ophio-pholis aculeata*, A. R. Fontaine, 908
- News and comment: Congress, 1247; cooperation in space, 1316; Cuba, 670; disarmament, 881; education, 1085; Fermi award, 1087; fish flour, 880; French nuclear arms, 18; manpower race, 1314; missile episode, 577; NATO, 962; NIH foreign grants, 879; Nobel award in chemistry, 668; Nobel award in physics, 667; Nobel prize, 498; nuclear energy for India, 1245; penguins and politics, 500; "Population explosion", 960; school affidavit, 1381; science and congress, 417; science and foreign affairs, 122; supersonic transport, 1083; tobacco, 579; U.S. endorses U.N. birth control aid, 1249; U.S. Geological Survey, 1380; U.S. Public Health Service grant policy, 1379; Who runs America?, 797; worldwide hydrology study, 962
- New genetically determined molecular form of erythrocyte esterase in man, C. R. Shaw *et al.*, 31
- Newman, J. E.: Lunar influence on precipitation patterns (*letter*), 1352
- Neyman, J.: What is to be the function of the section on statistics?, 1080
- Nictitating membrane: classical conditioning and extinction in the albino rabbit, I. Gormezano *et al.*, 33
- Nieburg, H. L.: *book review* of The sciences and the arts, 130
- Nims, L. F.: Flow through a permeable membrane (*letter*), 1183
- Nirenberg, M. W. *See* Barondes, S. H.
- Nodding, C. R. *See* Mullet, G. M.
- Notterman, J. M. *See* Mandriota, F. J., *et al.*
- Numerical methods for scientists and engineers, R. W. HAMMING, *book review* by M. L. Juncosa, 1091
- Nyborg, W. L. *See* Hughes, D. E.
- O**
- Obituary: Arthur Holly Compton, research physicist, 794
- Ocean bottom, The, R. M. Pratt, 492
- Of time, work, and leisure, S. DE GRAZIA, *book review* by R. M. MacIver, 23
- O'Keefe, J. A., III. *See* Carpenter, M. S., *et al.*
- On the chemistry of inert gases (*letter*), G. Wald, 1350
- On planarian behavior (*letter*), R. H. Dufort, 400
- On the recent discoveries concerning Jupiter and Venus (*letter*), V. Bargmann and L. Motz, 1350
- On the theory of social change: how economic growth begins, E. E. HAGEN, *book review* by N. J. Smelser, 502
- Organization of cellular activity, The, C. M. A. KUYPER, *book review* by J. G. Gall, 1389
- Origin and biologic individuality of the genetic dictionary, The, D. Giacomoni and S. Spiegelman, 1328
- Origin of the human races, C. COON, *book review* by E. Mayr, 420
- ORLANS, H., The effects of federal programs on higher education, *book review* of, 581
- Ormes, R. V.: *editorial*: Contributors can contribute too, 481
- Ornduff, R.: *book review* of Plant taxonomy, 672
- Osterberg, C.: Fallout radionuclides in euphausiids, 529
- Overtrimmed cover picture (*letter*), R. C. King, 734
- P**
- Pachytene and diakinesis behavior of the isochromosomes 6 of maize, M. P. McGuire, 445
- Page, I. H., *editorial*: Age and creativity, 947; *See* Khairallah, P. A., *et al.*
- Page, R. M.: Light and the asexual reproduction of *Pilobolus*, 1238
- Page, T.: *book review* of Astronomy of the 20th century, 1321
- Paniagua, M. *See* Pincus, G., *et al.*
- Papers on animal population genetics, E. SPIESS, *book review* by L. Van Valen, 424
- Park, K., *et al.*: Amino acids in deep-sea water, 531
- Park, T.: Beetles, competition, and populations, 1369
- Parkhurst, R. M. *See* Skinner, W. A., *et al.*
- Particle-size analysis of Valders drift in eastern Wisconsin, G. B. Lee *et al.*, 154
- Partitioning of body fluids in the Lake Nicaragua shark and three marine sharks, T. B. Thorson, 688
- Pathogenesis of thrombosis: platelet contribution (*meeting report*), R. G. Mason, Jr., 833
- Pellam, J. R.: Physics (*news and comment*), 667
- Penetration of fallout fission products into an Indiana soil, D. Telfair and J. Luetzelschwab, 829
- Penicillinase production in some bacilli, R. A. Day and R. Shah, 1108
- Perkins, H. J., and M. D. MacDonald: Gas-flow counting of carbon-14 compounds: an improved technique, 1259
- PERRING, F. H., and S. M. WALTERS (Eds.), *Atlas of the British Flora, book review of*, 506
- Persistent vaginal cornification in mice, N. Takasugi *et al.*, 438
- Petrology, W. T. HUANG, *book review* by J. B. Thompson, Jr., 1253
- PFEIFFER, J., The thinking machine, *book review of*, 806
- Photographic cytophotometry with a dual microscope, J. W. Kelly, 1272
- Physical anthropology of Ceylon, The H. W. STOUDT, *book review* by W. S. Laughlin, 505
- Physical organic chemistry, J. HINE, *book review* by J. F. Bunnett, 967
- Physiology of flowering, The W. S. HILLMAN, *book review* by H. E. Clark, 24
- Pierce, C. M. *See* West, L. J., *et al.*
- Piezoelectric micromanipulators, G. W. Ellis, 84
- Pilgeram, L. O.: Time dilatation (*letter*), 1180
- Pincus, G., *et al.*: Ethynodiol diacetate as a new, highly potent oral inhibitor of ovulation, 439
- Placebo effect in the rat, R. J. Herrnstein, 667
- Plair, C. M. *See* Wilens, S. L.
- Planet Saturn, The A. F. O'D. ALEXANDER, *book review* by W. M. Sinton, 423
- Plans for Science (*editorial*), P. H. Abelson, 405
- Plant taxonomy, L. BENSON, *book review* by R. Ornduff, 672
- Plasticity of crystals, K. V. KLASSEN-NEKLYUDOVA (Ed.), *book review* by M. J. Buerger, 1390
- Plotting kinetic data to determine reaction order and specific rate constant, G. M. Mullet and C. R. Nodding, 1346
- Pohl, H. A.: Quantum chemistry and solid state physics (*meeting report*), 1407
- Poisoning by organic phosphorus pesticides potentiated by phenothiazine derivatives, T. B. Gaines, 1260
- Pollen sequence at Kirchner Marsh, Minnesota, T. C. Winter, 526
- Pollen tube growth in vivo as a measure of pollen viability, W. H. Dempsey, 436
- Pooled estimates of parent-child correlations in stature from birth to maturity, N. Livson *et al.*, 818
- Population biology (*letter*), D. Amadon *et al.*, 733
- Postvernalization seed treatment with vitamins in *Vigna catjang*, P. K. Mohanty and D. Mishra, 902
- Potassium-argon dating of plutonic bodies in Palmer Peninsula and southern Chile, M. Halpern, 1261
- Potter, L. T. *See* Wolfe, D. E., *et al.*
- POTTER, N., and F. T. CHRISTY, JR.: Trends in natural resource commodities, *book review of*, 587
- Powell, G. F. *See* Henkin, R. I.
- Pratt, R. M.: The ocean bottom, 492
- Pre-Columbian alloy objects from Guerrero, Mexico, C. F. Brush, 1336
- Prediction of ultrafiltration membrane performance, W. E. Clark, 148
- Prescott, J. M. *See* Park, K., *et al.*
- Preventing world war III, Q. WRIGHT, W. M. EVANS, and M. DEUTSCH (Eds.), *book review* by L. S. Finkelstein, 1256
- Price, D. K.: Wrong subtitle (*letter*), 476
- Primary quantum conversion in photosynthesis, M. Calvin and G. M. Androes, 867
- Principles of biology, N. D. BUFFALOE, *book review* by C. S. Thronton, 25
- Problem of weather modification, The, E. J. Workman, 407
- Progress in medicinal chemistry, G. P. ELLIS and G. B. WEST (Eds.), *book review* by A. Furst, 1092
- Prosser, C. L.: *book review* of Advances

INDEX TO VOLUME 138

in comparative physiology and biochemistry, 503; *meeting report*: Neurophysiology: evaluating the comparative approach, 449
 Protein present in fetal but not in maternal rat serum, A. P. C. Kelleher and C. A. Villee, 510
 Proudfoot, V. B.: *book review* of Great Britain: geographical essays, 1322
 Pryles, C. V. *See* Saxena, K. M., *et al.*
 Psychological differentiation, H. A. WITKIN *et al.*, *book review* by W. H. Holtzman, 1092

Q

Quantitative analysis of blood circulation through the frog heart, K. T. DeLong, 693
 Quantum chemistry and solid state physics (*meeting report*), H. A. Pohl, 1407
 Quarterman, L. A. *See* Chernick, C. L., *et al.*

R

Radioiodine in milk of cows consuming stored feed and of cows on pasture, B. Kahn, *et al.*, 1334
 RAGUIN, E., *Geologie des gites minéraux*, *book review* of, 588
 Rains, D. W. *See* Epstein, E., *et al.*
 Rapid microchemical identification methods in pharmacy and toxicology, F. AMELINK, *book review* by W. Cutting, 676
 RAST, N. (Ed.), *Applied geophysics*, USSR, *book review* of, 804
 Raup, D. M.: Computer as aid in describing form in gastropod shells, 150
 Raymond, S., and B. Aurell: Two-dimensional gel electrophoresis, 152
 Recent developments in general relativity, P. W. NAUKOWE, *book review* by P. Bergmann, 134
 Reckner, L. *See* Stephens, E. R., *et al.*
 Recovery from radiation-induced delay of cleavage in gametes of *Arbacia punctulata*, P. McC. Failla, 1341
 Reddy, G. M., and E. H. Coe, Jr.: Intertissue complementation: A simple technique for direct analysis of gene-action sequence, 149
 Rees, M.: The nature of mathematics, 9
 Relation of infrared spectra to coordination in quartz and two high-pressure polymorphs of SiO₂, C. B. Sclar *et al.*, 525
 Rennels, E. G.: Terminology for the anterior pituitary hormones (*letter*), 723
 Ribonucleotides of RNA: separation by chromatography on sheets of diethylaminoethylcellulose, K. B. Jacobson, 515

Ribosomal clusters synthesizing hemoglobin, electron microscope studies of, J. R. Warner *et al.*, 1399
 Rice, C. E.: Imprinting by force, 680
 Rice, R. V.: Life on Mars (*letter*), 1197
 Rich, A. *See* Warner, J. R., *et al.*
 Richards, D. W. *See* Ingram, V. M., *et al.*
 Richardson, K. C. *See* Wolfe, D. E., *et al.*
 Richardson, L. B., *et al.*: Genetic and environmental variation: effect on pigments of selected maize mutants, 1333
 Rinehart, R. F.: *book review* of Mathematics for physicists and engineers, 1324
 Rise of a research empire: NIH, 1930 to 1950, The, D. C. Swain, 1233
 Rittenberg, M. B., and E. L. Nelson: Maintenance of globulin levels in x-irradiated rabbits after immunization, 519
 RNA: a marker in embryonic differentiation, L. Gluck and M. V. Kulovich, 530
 Roberts, L. W., and D. E. Fosket: Geo-

tropic stimulation: effects on wound vessel differentiation, 1264
 Robertson, D. S. *See* Richardson, L. B., *et al.*

Robinson, D. W.: *book review* of Advanced inorganic chemistry, 887
 ROMER, A. S., *The vertebrate body*, *book review* of, 888

Ronkin, R. R. *See* Cristofalo, V. J., *et al.*
 ROSE, J., *Dynamic physical chemistry*, *book review* of, 1255

Roser, F. X., and T. L. Cullen: Sodium iodide crystal dosimeters for use in surveys of regions of high background radiation, 145

Roth, L. M.: Hypersexual activity induced in females of the cockroach *Nauphoeta cinerea*, 1267

Rubenstein, E.: Blood clotting: the force of retraction, 1343

Ruhl, M. J.: Chemical indexing: an "atom total" based on cyclic features of structure, 592

Rummel, R. E. *See* Martin, T. W., *et al.*
 Russell, J. A., and A. E. Wilhelm: Terminology for the anterior pituitary hormones (*letter*), 723

Rutherford jubilee international conference, J. B. BIRKS (Ed.), *book review* by P. Goldhammer, 674

S

Sand dune alignment (*letters*), D. A. Holm; G. F. Jordan, 478

Sarcoma 180 inhibition by combinations of 6-thioguanine and uracil mustard, B. A. Booth and A. C. Sartorelli, 518

Sartorelli, A. C. *See* Booth, B. A.
 Sauer, K.: *book review*: Introduction to theoretical physical chemistry, Dynamic physical chemistry, 1255

Saxena, K. M., *et al.*: Minimal dosage of iodide required to suppress uptake of iodine-131 by normal thyroid, 430

Schainbaum, J.: Muscle action potentials: a technique for recording in situ, 905

Schistosoma mansoni: natural infection of cattle in Brazil, F. S. Barbosa *et al.*, 831

Schmid, W. E. *See* Epstein, E., *et al.*
 Schmidt, P. G. *See* Anderson, J. J., *et al.*
 Schmidt, R. A.: Australites and Antarctica, 443

Schneiderman, N. *See* Gormezano, I., *et al.*

Schreiner, F. *See* Chernick, C. L., *et al.*

Schroeder, C. A., *et al.*: Totipotency of cells from fruit pericarp tissue in vitro, 595

Schwartz, C. M. *See* Sclar, C. B., *et al.*

Schwartz, J. H. *See* Cordon, T. C.

Science and society (*editorial*), N. Wiener, 651

Science and the humanities (*editorial*), P. H. Abelson, 1367

Science for the citizen: an educational problem, J. H. Mathewson, 1375

Sciences and the arts, The, H. G. CASSIDY, *book review* by H. L. Nieburg, 130

Scientists and logicians: a confrontation, N. R. Hanson, 1311

Sclar, C. B., *et al.*: Relation of infrared spectra to coordination in quartz and two high-pressure polymorphs of SiO₂, 525

SCOTT, E. C., and F. A. KANDA, The nature of atoms and molecules, *book review* of, 506

Scott, J. P.: Critical periods in behavioral development, 949

Search for organized elements in carbonaceous chondrites, E. Anders and F. W. Fitch, 1392

Second order neurons in the acoustic nerve, J. M. Harrison *et al.*, 893

Secretion of benzaldehyde and hydrogen

cyanide by the millipede *Pachydesmus crassicutis* (Wood), M. S. Blum and J. P. Woodring, 512

Seitz, F.: The effects of irradiation on metals, 563

Selig, H. H. *See* Chernick, C. L., *et al.*
 Seliger, H. H., and W. D. McElroy: Chemiluminescence of firefly luciferin without enzyme, 683

Semilogarithmic plots of data which reflect a continuum of exponential processes, H. D. Van Liew, 682

Senses of animals and men, The, L. MILNE and M. MILNE, *book review* by M. Graubard, 423

Sensory deprivation: its effects on human learning, F. N. Arnhoff *et al.*, 899

Serial propagation of influenza B (Lee) virus in a transmissible line of canine kidney cells, I. J. Green, 42

Sex chromatin mass in living, cultivated human cells, R. DeMars, 980

Shah, R. *See* Day, R. A.
 Shapiro, D. *See* Leiderman, P. H.

Shaw, C. R., *et al.*: New genetically determined molecular form of erythrocyte esterase in man, 31

Sheft, I. *See* Chernick, C. L., *et al.*

Shepard, J. *See* Pincus, G., *et al.*

Short history of AAAS meetings in Philadelphia, A (Association affairs), R. L. Taylor, 599

Siegel, S. *See* Chernick, C. L., *et al.*

Simmons, F. B., and D. L. Beatty: Theory of middle ear muscle function at moderate sound levels, 590

Simple apparatus for ultrafiltration, D. A. Burns *et al.*, 138

Singh, B. *See* Anand, B. K., *et al.*

Sinton, W. M.: *book review* of The planet Saturn, 423

Skin resistance recording in the unrestrained rat, S. Kaplan and R. Kaplan, 1403

Skinner, W. A., *et al.*: Alarm reaction of the top smelt, *Atherinops affinis* (Ayres), 681

Sleva, S. F. *See* Altshuller, A. P., *et al.*

Sloth, E. N. *See* Chernick, C. L., *et al.*

Slownik Lekarski: Angielsko-Polski i Polsko-Angielski, s. JEDRASZKO, *book review* by S. Jablonski, 424

Smeby, R. R. *See* Khairallah, P. A., *et al.*

Smelser, N. J.: *book review* of On the theory of social change: how economic growth begins, 502

Smiley, C. H.: Tidal forces and widespread precipitation (*letter*), 731

Smith, C. E.: Is memory a matter of enzyme induction?, 889

Smith, E. J. *See* Coleman, P. J., Jr., *et al.*

Smith, R. J.: *book review* of Instrumentation for engineering measurement, 128

Smith, R. O.: *book review* of Instruments for measurement and control, 135

Smith, S. G., and Y. Takenouchi: Unique incompatibility system in a hybrid species, 36

Snyder, C. W. *See* Neugebauer, M.

Snyder, R. C.: *book review* of The vertebrate body, 888

Social science research (*letters*), W. Gomberg; K. E. Boulding, 402

Socialized medicine in England and Wales, A. LINDSEY, *book review* by G. A. Wolf, Jr., 504

Socransky, S. S. *See* Loesche, W. J.

Sodium iodide crystal dosimeters for use in surveys of regions of high background radiation, F. X. Roser and T. L. Cullen, 145

Solar plasma experiment, M. Neugebauer and C. W. Snyder, 1095

Soller, R. A. *See* Gustafson, P. F., *et al.*

Sonett, C. P. *See* Coleman, P. J., Jr., *et al.*

Soske, J. L.: *book review* of Applied geophysics, USSR, 804

- Sound stimulation and its effect on dental sensation threshold, S. Carlin *et al.*, 1258
- Southon, H. A. W. *See* Cunningham, M. P., *et al.*
- Soviet potentials, G. B. CRESSEY, *book review* by T. Lloyd, 1322
- Spectral theory, E. RAYMOND LORCH, *book review* by K. Hoffman, 132
- Spengler, J. J.: *book review* of The underprivileged nations, 504
- Spiegelman, S. *See* Doi, R. H.; *See* Giacomoni, D.
- SPEISS, E.: Papers on animal population genetics, *book review* of, 424
- Splettstoesser, J. F. *See* Anderson, J. J., *et al.*
- Spofford, J. B.: Feedback and nonfeedback (*letter*), 456
- Spontaneous electrical activity of *Dionaea muscipula*, N. M. Balotin and J. R. DiPalma, 1338
- Springer, G. F., and H. Tritel: Blood group A active substances in embryonated chicken eggs and their relation to egg-grown virus, 687
- Staley, E.: *book reviews*: Economic development and social changes in South India, 885; Traditional cultures and the impact of technological change, 131
- Stars and stellar systems, G. P. KUIPER (Ed.), *book review* by J. B. Irwin, 127
- Stein, L. *See* Chernick, C. L., *et al.*
- Stephens, E. R., *et al.*: Atmospheric photochemical reactions inhibited by iodine, 831
- Steroid drugs, N. APPLEZWEIG, *book review* by W. Cutting, 26
- Stewart, J., and Li, C. H.: Terminology for the anterior pituitary hormones (*letter*), 723
- Stirling, M. W.: *book review* of Lost tribes and sunken continents, 805
- Stockpiling to survive a nuclear attack, A. W. Bellamy, 958
- Stonier, T.: Congress of scientists on survival (*letter*), 710
- STOUDT, H. W.: The physical anthropology of Ceylon, *book review* of, 505
- Straub, C. P. *See* Kahn, B., *et al.*
- Stromberg, H., and G. Jura: Four-lead electrical resistance measurements in Bridgman anvils, 1344
- Structure of scientific revolutions, The, T. S. KUHN, *book review* by C. C. Gillispie, 1251
- Structural and rheological properties of glass, H. F. Mark and S. M. Atlas, 413
- STRUVE, O.: The universe, *book review* of, 675; ——, and v. ZEBERGS, Astronomy of the 20th century, *book review* of, 1321
- STUART, R. D.: An introduction to Fourier analysis, *book review* of, 134
- Studier, M. H. *See* Chernick, C. L., *et al.*
- Studies in statistical mechanics, J. DE BOER and G. E. UHLENBECK (Eds.), *book review* by W. E. Brittin, 965
- Suedfeld, P. *See* Grissom, R. J., *et al.*
- SUITS, C. G., (Ed.): The collected works of Irving Langmuir, vols. 1-12, *book review* of, 126
- Surface textures of sand grains—an application of electron microscopy: glaciation, D. Krinsley and T. Takahashi, 1262
- SUSSKIND, C. (Ed.): The encyclopedia of electronics, *book review* of, 1323
- Swain, D. C.: The rise of a research empire: NIH, 1930 to 1950, 1233
- Swisher, J. E.: Manifestations of "activated" sleep in the rat, 1110
- Syner, F. N. *See* Shaw, C. R., *et al.*
- Synge, J. L.: Water waves and hydrions, 13
- Synthetic acrylic gel: a new medium for the study of immune precipitates, B. Antoine, 977

T

- Tabrah, F. L.: Absence of dental caries in a Nigerian bush village, 38
- Takahashi, T. *See* Krinsley, D.
- Takasugi, N., *et al.*: Persistent vaginal cornification in mice, 438
- Takenouchi, Y. *See* Smith, S. G.
- Talmage, D. W., *et al.*: Delayed hypersensitivity (*letter*), 1189
- Tash, J. C. *See* Angino, E. E., *et al.*
- Tashian, R. E. *See* Shaw, C. R., *et al.*
- Taylor, R. L.: A short history of AAAS meetings in Philadelphia (*Association affairs*), 599
- Teaching of science, The (*meeting report*), S. C. Brown, 703
- Teichert, C.: *book review* of The geology of Queensland, 965
- Telfair, D., and J. Luetzelschwab: Penetration of fallout fission products into an Indiana soil, 829
- Temperature-independent morning emergence in lizards of the genus *Phrynosoma*, J. E. Heath, 891
- Tenate and dialysate (*letter*), W. Donaldson, 1188
- Terpas, D. I. *See* Williams, H. L., *et al.*
- Terminology for the anterior pituitary hormones (*letters*), E. G. Rennells; W. J. Mellen; J. A. Russell and A. E. Wilhelmi; J. Stewart and C. H. Li, 723
- Theoretical inorganic chemistry, M. C. DAY and J. SELBIN, *book review* by G. B. Kauffman, 675
- Theory of middle ear muscle function at moderate sound levels, A. F. B. Simmons and D. L. Beatty, 590
- Theory of probability, The, B. V. GENDENKO, *book review* by H. G. Tucker, 422
- Thinking machine, The, J. PFEIFFER, *book review* by J. W. Mauchly, 806
- This is life, W. H. JOHNSON and W. C. STEERE (Eds.), *book review* by C. S. Thornton, 885
- Thomas, K. *See* Livson, N., *et al.*
- Thomas, M. D.: *book review* of A geography of manufacturing, 422
- Thomas, W. D. *See* West, L. J., *et al.*
- Thompson, J. B.: *book review* of Petrology, 1253
- Thompson, M. *See* Levin, G. V., *et al.*
- THOMSON, G., SIR, The inspiration of science, *book review* of, 966
- Thornton, C. S.: *book reviews*: Principles of biology, 25; This is life, Frontiers of modern biology, 885
- Thorson, T. B.: Partitioning of body fluids in the Lake Nicaragua shark and three marine sharks, 688
- Tidal forces and widespread precipitation (*letter*), C. H. Smiley, 731
- Time and talent (*editorial*), E. Ginzberg, 1305
- Time dilatation (*letters*), L. O. Pilgeram; S. von Hoerner, 1180
- TOLSTOV, G. P.: Fourier series, *book review* of, 134
- Too slow (*editorial*), D. Wolfe, 561
- Totipotency of cells from fruit pericarp tissue in vitro, C. A. Schroeder *et al.*, 595
- Traditional cultures and the impact of technological change, G. M. FOSTER, *book review* by E. Staley, 131
- Transfer of the "sex-ratio" factor in *Drosophila willistoni* by ingestion, G. G. Carvalho and M. P. de Cruz, 51
- Transplantation of tissues and cells, R. E. BILLINGHAM and W. K. SILVERS (Eds.), *book review* by B. F. Argyris, 1325
- Treatment of irradiated primates (*meeting report*), D. W. van Bekkum, 538
- Trends in natural resource commodities, N. POTTER and F. T. CHRISTY, JR., *book review* by D. B. Luten, 587

Tritel, H. *See* Springer, G. F.

- Tritium and helium-3 in solar flares and loss of helium from the earth's atmosphere, E. Flamm *et al.*, 48
- Tucker, H. G.: *book review* of The theory of probability, 422
- Two meteorites of unusually short cosmic-ray exposure age, E. Anders, 431
- Two-dimensional gel electrophoresis, S. Raymond and B. Aurell, 152

U

- UNDENFRIEND, S.: Fluorescence assay in biology and medicine, *book review* of, 130
- Underprivileged nations, The, P. MOUSSA, *book review* by J. J. Spengler, 504
- Unique incompatibility system in a hybrid species, S. G. Smith and Y. Takenouchi, 36
- Universe, The, o. STRUVE, *book review* by G. de Vaucouleurs, 675
- Unpublished papers of Isaac Newton, A. R. HALL and M. B. HALL (Eds.), *book review* by I. B. Cohen, 803
- Uptake of strontium-85 by alfalfa, C. C. Lee, 41
- Use of iodine-131 to measure movements of small animals, A. G. Johanningsmeier and C. J. Goodnight, 147

V

- VAIZEY, J.: The economics of education, *book review* of, 1324
- Value of water in alternative uses, The, N. WOLLMAN *et al.*, *book review* by R. K. Linsley, 1253
- Van Allen, J. A., and L. A. Frank: The Iowa radiation experiment, 1097
- van Bekkum, D. W.: Treatment of irradiated primates (*meeting report*), 538
- Van Liew, H. D.: Semilogarithmic plots of data which reflect a continuum of exponential processes, 682
- Van Valen, L.: *book review* of Papers on animal population genetics, 424
- Venus mission, The (*editorial*), P. H. Abelson, 1069
- Vernon, J. *See* Grissom, R. J., *et al.*
- Vertebrate body, The, A. S. ROMER, *book review* by R. C. Snyder, 888
- Villablanca, J.: Electroencephalogram in the permanently isolated forebrain of the cat, 44
- Villee, C. A. *See* Kelleher, P. C.; *See* Moore, R. O.; *See* Wiggert, B.
- Virus neutralization test in a capillary tube, D. P. Durand, 448
- Visual observations of nightglow from manned spacecraft, M. S. Carpenter *et al.*, 978
- Visual velocity discrimination: effects of spatial and temporal cues, F. J. Mandriota *et al.*, 437
- Vogel, H. J., *et al.*: Informational macromolecules (*meeting report*), 912
- Volkmann, J. *See* Chaikin, J. D., *et al.*
- von Hippel, A. R.: Molecular designing of materials, 91
- von Hoerner, S.: Time dilatation (*letter*), 1180

W

- Wald, G.: On the chemistry of inert gases (*letter*), 1350
- WALKER, C. R.: Modern technology and civilization, *book review* of, 132
- Walsh, J. *See* Courville, J., *et al.*
- Walsh, J. R. (*news and comment*): Congress, 1247; cooperation in space, 1316;

INDEX TO VOLUME 138

- education, 1085; school affidavit, 1381
 Walton, H. F.: *book review* of Ion exchange, 133
 Ward, W. D. *See* Carlin, S., *et al.*
 Warner, J. R., *et al.*: Electron microscope studies of ribosomal clusters synthesizing hemoglobin, 1399
 Warr, W. B. *See* Harrison, J. M., *et al.*
 Water relations of plant communities as a management factor for western watersheds, J. P. Decker, 532
 Water waves and hydrons, J. L. Synge, 13
 WAUCHOPE, R., Lost tribes and sunken continents, *book review* of, 805
 Webb, W. B.: Animal experimentation (*letter*), 475
 Weber, J. N., and M. L. Keith: Carbon-isotope composition and the origin of calcareous coal balls, 900
 Weeks, J. L. *See* Chernick, C. L., *et al.*
 Weeks, J. R.: Experimental morphine addiction: method for automatic intravenous injections in unrestrained rats, 143
 Weisbrod, B. A.: *book review* of The economics of education, 1324
 Weiss, E.: *book review* of The biochemistry of intracellular parasitism, 25
 Welkie, G. W. *See* Cochran, G. W., *et al.*
 WELTY, J. C., The life of birds, *book review* of, 967
 Wenner, A. M.: Communication with queen honey bees by substrate sound, 446
 West, L. J., *et al.*: Lysergic acid diethylamide: its effects on a male Asiatic elephant, 1100
 Wetherington, R. K.: Individual in history and in cultural evolution (*letter*), 716
 What is to be the function of the section on statistics?, J. Neyman, 1080
 Who teaches science? (*editorial*), D. Wolfe, 779
 Whose responsibility? (*editorial*), D. Wolfe, 7
- Wickelgren, W. O. *See* Isaacson, R. L.
 Wiener, N., *editorial*: Science and society, 651
 WIENS, H. J., Atoll environment and ecology, *book review* of, 133
 Wiggett, B., and C. A. Villee: Lactic and malic dehydrogenases in human fetal tissues, 509
 Wigner, E. (*news and comment*): Fermi award, 1087
 Wildman, S. G., *et al.*: Chloroplasts and mitochondria in living plant cells: cinematographic studies, 434
 Wilens, S. L., and C. M. Plair: Cigarette smoking and arteriosclerosis, 975
 Wilhelm, A. E. *See* Russell, J. A.
 Williams, D. E., and R. L. Mason: Bone density measurements in vivo, 39
 Williams, D. W.: Anion-exchange properties of plant root surfaces, 153
 Williams, H. L., *et al.*: Evoked responses to clicks and electroencephalographic stages of sleep in man, 685
 Williams, L. P.: *book review* of Joseph Priestley, 674
 Williams, W. T. *See* Park, K., *et al.*
 Willman, V. L. *See* Cooper, T., *et al.*
 Winter, T. C.: Pollen sequence at Kirchner Marsh, Minnesota, 526
 Winzler, R. J.: *book review* of An introduction to the biochemistry of the cancer cell, 673
 WISCHNITZER, S.: Introduction to electron microscopy, *book review* of, 1093
 Wistreich, H. E., and J. A. Blake: Azeotropic freeze-drying, 138
 WITKIN, H. A., *et al.*: Psychological differentiation, *book review* of, 1092
 WOLF, F. L., Elements of probability and statistics, *book review* of, 968
 Wolf, G. A., Jr.: *book review* of Socialized medicine in England and Wales, 504
 Wolfe, D. E., *et al.*: Localizing tritiated norepinephrine in sympathetic axons by electron microscopic autoradiography, 440
 Wolfe, D.: *book review* of Intelligence and experience, 24; *editorials*: Conflict of interest, 865; Too slow, 561; Who teaches science?, 779; Whose responsibility?, 7
 WOLLMAN, N., *et al.*, The value of water in alternative uses, *book review* of, 1253
 Woodring, J. P. *See* Blum, M. S.
 Woodwell, G. M.: Effects of ionizing radiation on terrestrial ecosystems, 572
 Workman, E. J.: The problem of weather modification, 407
 Wright, Q.: *book review* of Conflict and defense, a general theory, 1385; ———, W. M. EVANS, and M. DEUTSCH (Eds.), Preventing World War III, *book review* of, 1256
 Wrong subtitle (*letter*), D. K. Price, 476
 WYNNE-EDWARDS, V. C.: Animal dispersion in relation to social behaviour, *book review* of, 1389
 Wyss, O. *See* Meyer, G. H. *et al.*

X

X-ray-induced chromosome aberrations in the corneal epithelium of the Chinese hamster, J. C. Brewen, 820

Y

Yardsticks (*letter*), R. K. Davis, 735

Z

Zahler, S. A.: Life on Mars (*letter*), 1197
 Zirin, M. H. *See* Chernick, C. L., *et al.*