

A

- AAAS: AAAS-Westinghouse science writing awards, 1495; Amendments to constitution and bylaws, 1086; preliminary announcement of meeting, 144, 276, 397, 539, 675, 811, 948, 1079, 1213, 1342, 1489, 1602
- Abelson, P. H.: (*editorials*): Advancement of the nation's health, 53; A damaging source of air pollution, 1527; Funds for new graduate students, 583; Meeting world food needs, 865; Privacy, 323; Student anxiety, 1139
- Abercrombie, M.: *book review* of Major problems in developmental biology, 250
- Ablation thermal protection systems, E. W. Ungar, 740
- Accelerator project problems (*letters*) E. L. Goldwasser and D. S. Greenberg, 48
- Achievement and management (*editorial*), D. Wolfe, 721
- Actinomycin D blocks formation of memory of shock-avoidance in goldfish, B. W. Agranoff *et al.*, 1600
- Actinomycin D effect on amino acid absorption from rat jejunal loops, C. Yamada *et al.*, 129
- Action potentials without contraction in frog skeletal muscle fibers with disrupted transverse tubules, P. W. Gage and R. S. Eisenberg, 1702
- Adams, J. B. *See* Gault, D. E., *et al.*
- Adenosine 3',5'-cyclic phosphate: stimulation of steroidogenesis in sonically disrupted adrenal mitochondria, S. Roberts *et al.*, 372
- Adhesion in biological systems (AAAS), R. S. Manly, 812
- Advancement of the nation's health (*editorial*), P. H. Abelson, 53
- Advances in alicyclic chemistry, H. HART and G. J. KARABATOS (Eds.), *book review* by K. B. Wiberg, 1039
- Agranoff, B. W., *et al.*: Actinomycin D blocks formation of memory of shock-avoidance in goldfish, 1600
- AKHIEZER, A. I., *et al.*: Collective oscillations in a plasma, *book review* of, 765
- AKHIEZER, I. A. *See* AKHIEZER, A. I., *et al.*
- Alan T. Waterman (*letter*), W. D. Carey, 1622
- Alarm reaction of the top smelt, *Atherinops affinis*: reexamination, R. H. Rosenblatt and G. S. Losey, Jr., 671
- Alberts, W. W. *See* Libet, B., *et al.*
- Alexander, B. K. *See* Bowers, J. M.
- Alexander, G. J. *See* DiPaolo, J. A.
- "All we like sheep have gone astray" (*letter*), F. P. Woodford, 1625
- ALLEN, G. W., William James, *book review* of, 480
- Allen, R. D., *et al.*: Optical differentiation of amoebic ectoplasm and endoplasmic flow, 142
- Allergic adenohypophysitis: new experimental disease of the pituitary gland, S. Levine, 1190
- Alloway, T. M., and A. Routtenberg; "Reminiscence" in the cold flour beetle (*Tenebrio molitor*), 1066
- Alternatives for balancing world food production and needs, *book review* by M. F. Millikan, 1560
- ALTMANN, S. A. (Ed.), Social communication among primates, *book review* of, 418

- Altschul, A. M.: Food proteins: new sources from seeds, 221
- Altstein, A. D., *et al.*: Transforming activity in green monkey SA7(08) adenovirus in tissue culture, 1455
- Aluminum-26 and beryllium-10 in Greenland ice, R. McCorkell *et al.*, 1690
- AMA persecution complex (*letter*), G. B. Dutton, Jr., 1622
- Amendments to AAAS constitution and bylaws (AAAS), D. Wolfe, 1086
- Anchel, M.: Enforcement of animal care bill (*letter*), 577
- Anderson, A. D. *See* Weertman, J., *et al.*
- Anderson, D. L.: *book review* of Gravity, deformation and the earth's crust, as studied by centrifuged models, 1561
- Anderson, J. D., *et al.*: Celestial mechanics experiment, 1689
- Andrews, E. W., IV: *book review* of Early cultures and human ecology in south coastal Guatemala, 364
- Anesthetization of porpoises for major surgery, S. H. Ridgway and J. C. McCormick, 510
- Angiostrongylus cantonensis*: proof of direct transmission with its epidemiological implications, D. Heyneman and B.-L. Lim, 1057
- Animal care: voluntary accreditation (*letters*), B. J. Cohen and B. J. Powell, 1621
- Animal gametes (male), V. NATH, *book review* by J. D. Biggers, 104
- Animals of the north. W. O. PRUITT, JR., *book review* by R. H. Manville, 764
- Antarctic Radiolaria, magnetic reversals, and climatic change, J. D. Hays and N. D. Opdyke, 1001
- Antennae and sexual receptivity in *Drosophila melanogaster* females, A. Manning, 136
- Antigenic competition: cellular or humoral, J. Radovich and D. W. Talmage, 512
- Antihemophilic factor release by perfused liver and spleen: relationship to hemophilia, J. C. Norman *et al.*, 1060
- Antonini, E.: Hemoglobin and its reaction with ligands, 1417
- APIANUS, P.: Astronomicum Caesareum, *book review* of, 102
- Arbovirus infections of laboratory workers, R. P. Hanson *et al.*, 1283
- Archaeology and dating by hydration of obsidian, J. W. Michels, 211
- Archer, L.: Buffalo River endangered (*letter*), 1266
- Are dental x-rays dangerous? (*letters*), F. M. Medwedeff and J. W. Stanford, 1397
- Are we to abandon the planets to the Soviet Union? (*editorial*), J. A. Van Allen, 1405
- Arid lands, E. S. HILLS (Ed.), *book review* by H. Aschmann, 106
- Arkani-Hamed, J. *See* Toksöz, M. N.
- Arlinghaus, R. B., and J. Polatnick: Detergent-solubilized RNA polymerase from cells infected with foot-and-mouth disease virus, 1320
- Armstrong, T. P. *See* Van Allen, J. A., *et al.*
- Arnold, H. A.: Manned submersibles for research, 84
- Aronoff, S. *See* Lee, S.
- Art of the soluble, The, P. B. MEDAWAR, *book review* by G. G. Simpson, 246
- Aschmann, H.: *book review* of Arid lands, 106
- Asofsky, R., and P. A. Small, Jr.; Colossal immunoglobulin-A: synthesis in vitro of T-chain by rabbit mammary gland, 932
- Aspects of marine zoology, N. B. MARSHALL (Ed.), *book review* by G. L. Clarke, 1441
- Astronomicum Caesareum, P. APIANUS, *book review* by D. J. de Solla Price, 102
- Atema, J. *See* Todd, J. H., *et al.*
- Atmosphere and ionosphere of Venus from the Mariner V S-band radio occultation measurement, The, A. Kliore *et al.*
- Atmospheric burnup of a plutonium-238 generator, P. W. Krey, 769
- Atz, J. W.: *book review* of Sharks, skates, and rays, 1038
- Audiogenic seizure susceptibility induced in CS7B1/6J mice by prior auditory exposure, K. R. Henry, 938
- Auerbach C.: The chemical production of mutations, 1141
- Aurora and airglow, B. M. MC CORMAC (Ed.), *book review* by C. A. Barth, 481
- Australian desert mice: independence of exogenous water, R. E. MacMillen and A. K. Lee, 383
- Automation in the laboratory, R. J. Spinard, 55
- Autosomal linkage between the albumin and Gc loci in humans, E. Kaarsalo *et al.*, 123
- Average evoked responses and learning, J. A. Horel *et al.*, 394
- Avian pineal gland: progonadotropic response in the Japanese quail, A. Sayler and A. Wolfson, 1478

B

- Backus, G. E.: Oil shale: conservation or development (*letter*), 47. *See also* Lvov, V., *et al.*
- Baghdiantz, A. *See* Blanquet, P., *et al.*
- BAINBRIDGE, R., *et al.* (Eds.), Light as an ecological factor, *book review* of, 1037
- Baker, F. D. and J. Hotchin: Slow virus kidney disease of mice, 502
- Baker, H. G.: *book review* of Plants and man on the Seychelles coast, 247
- Baker, W. R., Jr. *See* Allen, R. D., *et al.*
- Baldwin, C. L., and R. S. Runkle: Bio-hazards symbol: development of a biological hazards warning signal, 264.
- Bardach, J. E. *See* Todd, J. H., *et al.*
- Barghoorn, E. S. *See* Emery, K. O., *et al.*
- Barry, J. D. *See* Bender, P. J., *et al.*
- Barth, C. A.: *book review* of Aurora and airglow, 481
- Barth, C. A., *et al.*: Ultraviolet emissions observed near Venus from Mariner V, 1675
- Bartlett, A. S. *See* Emery, K. O., *et al.*
- Bartlett, G. A.: Scanning electron microscope: potentials in the morphology of microorganisms, 1318
- Barzun, J.: *book review* of William James, 480
- Basilar membrane vibration examined with

INDEX TO VOLUME 158

- the Mössbauer technique, B. M. Johnstone and A. J. F. Boyle, 389
 Bateman, P. C., and J. P. Eaton: Sierra Nevada batholith, 1407
 Batson, R. M. *See* Shoemaker, E. M., *et al.*
 Batterson, S. A. *See* Christensen, E. M., *et al.*
 Baylor, D. A. *See* Nicholls, J. G., *et al.*
 Beall, S. G. *See* Kawakami, T. G., *et al.*
 Beck, J.: book review of Sensory inhibition, 1296
 Behavior development in the dog: an interspecific analysis, R. B. Cairns and J. Werboff, 1070
 Behavior sciences and family planning (meeting report), M. Snyder, 677
 Behavioral research—New York Zoological Park (AAAS), R. Penney, 144
 Behavioral thermoregulation in the desert iguana, C. B. DeWitt *et al.*, 809
 Behrend, E. R. *See* Gonzalez, R. C., *et al.*
 Bence, A. E. *See* Hollister, L. S.
 Bender, P. L., *et al.*: Radio reflection by free radicals in Earth's atmosphere, 1487
 Benson, A. A. *See* Patton, S., *et al.*
 Benson, H. E. *See* Christensen, E. M., *et al.*
 BERG, G. (Ed.), Transmission of viruses by the water route, book review of, 367
 Berger, R. *See* Taylor, R. E.
 Bergs, V. V., and T. M. Scotti: Virus-induced peliosis hepatitis in rats, 377
 Bering land bridge, The, D. M. HOPKINS (Ed.), book review by P. S. Martin, 1168
 Berl, W. G.: "The intelligent man's guide" to the 1967 AAAS meeting (AAAS), 1342; Breaching the wall (AAAS), 1602
 Bern, H. A.: Hormones and endocrine glands of fishes, 455
 Bernhard, R. A.: book review of Terpenoids in plants, 1558
 Best, P. J. *See* Mink, W. D., *et al.*
 Betz, W. *See* Nicholls, J. G., *et al.*
 Bever, T. G. *See* Mehler, J.
 BHATIA, A. B.: Ultrasonic absorption, book review of, 1441
 Bhatnagar, R. S., *et al.*: Intracellular pool of unhydroxylated polypeptide precursors of collagen, 492
 BIBERMAN, I. M., reticles in electro-optical devices, book review of, 762
 Bidwell, R. G. S.: Decline of the lobster (letter), 1136
 Biggers, J. D.: book review of Animal gametes (male), 104
 Billingham, R. E. *See* Silver, W. K.
 Billings, W. D., and P. J. Godfrey: Photosynthetic utilization of internal carbon dioxide by hollow-stemmed plants, 121
 Binstock, L., and L. Goldman: Giant axon of *Myxicola*: some membrane properties as observed under voltage clamp, 1467
 Biochemical genetics of oxidative phosphorylation, L. Kóvač *et al.*, 1564
 Biochemistry of some food-borne microbial toxins, R. I. MATELES and G. N. WOGAN (Eds.), book review by J. R. Porter, 109
 Biohazards symbol: development of a biological hazards warning signal, C. L. Baldwin and R. S. Runkle, 264
 Biological aging research (letters), B. M. Wagner *et al.*, 1393
 Biology of ultimate concern, The, T. L. DOBZHANSKY, book review by H. F. Blum, 765
 Biosynthesis of antibiotics, J. F. SNELL (Ed.), book review by M. R. J. Salton, 1299
 Biscardi, A. M. *See* Chiocchio, S. R., *et al.*
 Bitterman, M. E. *See* Gonzalez, R. C., *et al.* *See also* Potts, A.
 Black pigmentation: adaptation for concealment or heat conservation?, R. B. Cowles *et al.*, 1340
 Blackwell, R. Q., *et al.*: Hemoglobin variants in Koreans: hemoglobin G Taegu, 1056
 Blanquet, P., *et al.*: Iodine determined in purified thyrocalcitonin, 381
 "Blastokinin": inducer and regulator of blastocyst development in the rabbit uterus, R. S. Krishnan and J. C. Daniel, Jr., 490
 Blaw, M. E., *et al.*: Experimental allergic encephalomyelitis in agammaglobulinemic chickens, 1198
 BLOCH, C. (Ed.), Many-body description of nuclear structure and reactions, book review of, 1440
 Blood clotting enzymology, W. H. SEE-GERS (Ed.), book review by K. Laki, 1171
 Blloth, B. *See* Svehag, S-E., *et al.*
 Blough, D. S.: Stimulus generalization as signal detection in pigeons, 940
 Blum, H. F.: book review of The biology of ultimate concern, 765
 Blumberg, B. S. *See* Kaarsalo, E., *et al.*
 Blume, P. *See* Bowman, R. L., *et al.*
 Blumer, M., and W. J. Cooper: Iso-prenoid acids in recent sediments, 1463
 BOAS, F.: Kwakiutl ethnography, book review of, 363
 Boeke, J.: Rioting patterns (letter), 577
 Boffey, P. M. (News and Comment): AMA Research Institute, 1653; draft deferments, 1435; federal research funds, 1286; research in Japan, 748; reshaping American medicine, 1160; Scientists and Engineers for McCarthy, 1554; systems analysis, 1028
 Bonaventura, J., and A. Riggs: Polymerization of hemoglobins of mouse and man: structural basis, 800
 Booher, E. E.: The decades ahead from a publisher's view, 882
 Booth, D. A.: Localization of the adrenergic feeding system in the rat diencephalon, 515
 Boretos, J. W., and W. S. Pierce: Segmented polyurethane: a new elastomer for biomedical applications, 1481
 Boron in plants: a biochemical role, S. Lee and S. Aronoff, 798
 Borsos, T. *See* Colten, H. R., *et al.*
 Borst, L. B. *See* Sauer, G. E.
 Bowers, J. M., and B. K. Alexander: Mice: individual recognition by olfactory cues, 1208
 Bowman, R. L., *et al.*: Capillary-tube scanner for mechanized microbiology, 78
 Boyce Thompson Institute for Plant Research (AAAS), G. L. McNew, 1489
 Boyer, J. S.: book review of Plant-water relationships, 1171
 Boyle, A. J. F. *See* Johnstone, B. M.
 BRADBURY, S., and G. L'E. TURNER (Eds.): Historical aspects of microscopy, book review of, 622
 Bradner, H. *See* Lvov, V., *et al.*
 Brady, J. D. *See* Hulet, E. K., *et al.*
 Brain research (meeting report), P. B. Dews *et al.*, 951
 Bramlette, M. N.: Primitive microfossils or not?, 673
 Branton, D. *See* Deamer, D. W.
 Bray, D. *See* Robbins, P. W., *et al.*
 Breaching the wall (AAAS), W. G. Berl, 1602
 Breckenridge, W. R. *See* Davey, K. G.
 Breiner, S., and R. L. Kovach: Local geomagnetic events associated with displacements on the San Andreas fault, 116
 Bridge, H. S., *et al.*: Mariner V: plasma and magnetic fields observed near Venus by Mariner V, 1669
 Brink, J. J., and D. G. Stein: Pemoline levels in brain: enhancement by dimethyl sulfoxide, 1479
 Brock, T. D.: Life at high temperatures, 1012
 Brodie, A. F. *See* Gutnick, D. L., *et al.*
 Broecker, W. S., *et al.*: Radium-226 and radon-222: concentration in Atlantic and Pacific oceans, 1307
 Bronchiolar and large alveolar cell in pulmonary phospholipid metabolism, A. H. Niden, 1323
 Brooks, R. R. *See* Presley, B. J., *et al.*
 Brostoff, S. W., and V. M. Ingram: Chemical modification of yeast alanine-tRNA with a radioactive carbodiimide, 666
 Brown, G. E.: book review of Many-body description of nuclear structure and reactions, 1440
 Brown, J. E., *et al.*: Photoelectric potential from photoreceptor cells in ventral eye of *Limulus*, 665
 Brown, J. R.: The world outlook for conventional agriculture, 604
 Brown, R. T., and J. A. Van Allen: Planetary magnetic fields and rotation, 674
 Brown, S. C.: book review of Photoionization processes in gases, 1663
 BROWN, S. C. (Ed.), Electrons, ions, and waves, book review of, 482
 Brown, W. S., *et al.*: The future of scientific journals, 1153
 Brunk, C. F., and P. C. Hanawalt: Repair of damaged DNA in a eucaryotic cell: *Tetrahymena pyriformis*, 663
 Bucher, N. L. R. *See* Moolten, F. L.
 Buchinger, M. *See* Heltne, P. G.
 Buckser, S., *et al.*: Vietnam (letters), 1393
 Budde, P. B. *See* Tolkmith, H., *et al.*
 Budington, W. S.: Information distribution: a plea for efficiency (letter), 320
 Buescher, E. L. *See* Hanson, R. P., *et al.*
 Buecher, R. W. *See* Odencrantz, F. K.
 Buffalo River endangered (letter), L. Archer, 1266
 Burgeoning ABM costs (letter), B. S. Jacobson, 718
 BURGER, A. (Ed.), Drugs affecting the peripheral nervous system, book review of, 900
 Burgess, F. J. *See* Olson, T. A.
 BURHOP, E. H. S. (Ed.), High energy physics, book review of, 251
 Burlingame, A. L. *See* Haug, P., *et al.*
 Busby, R. F.: Undersea penetration by ambient light, and visibility, 1178
 Bustard, H. R.: Gekkonid lizards adapt fat storage to desert environments, 1197
 Buu-Hoi, N. P. *See* Lacassagne, A., *et al.*
 Buzzell, J. C., Jr.: Rubber tubing disadvantages (letter), 1624
 Byram, E. T. *See* Friedman, H.
 Byrne, W. L.: Molecular approaches to learning and memory (AAAS), 1081

C

- Cabanac, M., *et al.*: *Tiliqua scincoides*: temperature-sensitive units in lizard brain, 1050
 Cadman, J. D., and R. E. Goodman: Landslide noise, 1182
 Cain, D. L. *See* Kliore, A., *et al.*
 Cairns, R. B., and J. Werboff: Behavior development in the dog: an interspecific analysis, 1070
 Calcitonin from ultimobranchial glands of dogfish and chickens, D. H. Copp *et al.*, 924
 California oath controversy, The, D. P. GARDNER, book review by R. K. Carr, 897

- Campbell, J. M.: book review of Eskimo masks, 1660
 Campbell, R. D.: book review of The cell biology of hydra, 1036
 Cancer dissemination (meeting report), H. G. Mandel, 958
 CANTONI, G. L. and D. R. DAVIES (Eds.), Procedures in nucleic acid research, book review of, 900
 CANTOW, M. J. R. (Ed.), Polymer fractionation, book review of, 764
 Capillary-tube scanner for mechanized microbiology, R. L. Bowman *et al.*, 78
 Carbohydrate chemistry, E. A. DAVIDSON, book review by R. L. Whistler, 1299
 Carbohydrate supply as a regulator of rat liver phosphoenolpyruvate carboxykinase activity, E. Shrago *et al.*, 1572
 Carey, W. D.: Alan T. Waterman (letter), 1622
 Carlson, S. D., *et al.*: Vitamin A deficiency: effect on retinal structure of the moth *Manduca sexta*, 268
 Carotenoid biosynthesis in *Rhodospirillum rubrum*: effect of pteridine inhibitor, N. A. Nugent and R. C. Fuller, 922
 Carpenter, C. R.: book review of Play, exploration and territory in mammals, 1300
 Carpenter, D. G. See Wagner, B. M., *et al.*
 Carr, R. K.: book review of The California oath controversy, 897
 Carrel, J. E. See Eisner T., *et al.*
 Carrier, W. L. See Sutherland, B. M., *et al.*
 Carricker, M. R., *et al.*: Gastropid *Urospalinx*: pH of accessory boring organ while boring, 920
 Carroll, J. D.: The process values of university research, 1019
 Carruthers, P. A.: book review of High energy physics, 251
 Carter, L. J. (News and Comment): Academic freedom, 477; dams and wild rivers, 233; Environmental Defense Fund, Inc., 1552; FCC ruling on cigarette ads, 888; higher education, 620; new towns, 752; planetary exploration, 1025
 Carver, T. R.: book review of Hyperfine interactions, 1036
 Casola, L. See Agranoff, B. W., *et al.*
 Catalogue and reclassification of the Neotropical Ichneumonidae, A. H. TOWNES and M. TOWNES, book review by C. C. Porter, 107
 Catt, K., and G. W. Tregear: Solid-phase radioimmunoassay in antibody-coated tubes, 1570
 Causality, consciousness and cerebral organization, W. R. Hess, 1279
 Celestial mechanics experiment, J. D. Anderson *et al.*, 1689
 Cell biology of hydra. The, T. L. LENTZ, book review by R. D. Campbell, 1036
 Central nervous system of vertebrates, The, H. KUHLENBECK, book review by D. M. Maynard, 1443
 Cerebellar Purkinje cell projection to the peripheral vestibular organ in the frog, R. Llinàs *et al.*, 1328
 Cerebellum as a neuronal machine, The, J. C. ECCLES *et al.*, book review by E. V. Evarts, 1439
 Cerumen in American Indians: genetic implication of sticky and dry types, N. L. Petrakis *et al.*, 1192
 CHANCE, B., *et al.* (Eds.), Hemes and hemoproteins, book review of, 485
 Chandler, P. T. See Patton, S., *et al.*
 Chandler, W. K. See Nicholls, J. G., *et al.*
 Changing identity of graduate earth science education, C. E. WEAVER (Ed.), book review by H. A. Meyerhoff, 249
 CHAPMAN, O. L. (Ed.), Organic photochemistry, book review of, 1039
 Charles Scott Sherrington, R. GRANIT, book review by T. C. Ruch, 1035
 Charlton, G. See Carricker, M. R., *et al.*
 Chemical analysis of the moon at the Surveyor V landing site, A. L. Turkevich *et al.*, 635
 Chemical communication in social behavior of a fish, the yellow bullhead (*Ictalurus natalis*), J. H. Todd *et al.*, 672
 Chemical modification of yeast alanine-tRNA with a radioactive carbodiimide, S. W. Brostoff and V. M. Ingram, 666
 Chemical production of mutations, The, C. Auerbach, 1141
 Chemistry and structure of nucleic acids of bacteriophages, J. A. Cohen, 343
 Chemistry of organic sulfur compounds, The, vol. 2, N. KHARASCH and C. Y. MEYERS (Eds.), book review by H. H. Szmant, 250
 CHEN, T. T. (Ed.), Research in protozoology, book review of, 484
 Chernetski, K. E. See van Bergeijk, W. A., *et al.*
 Chernoff, P. R., and R. G. Kazmann: Negro students at Michigan (letters), 205
 Chesebro, B. See Svehag, S.-E., *et al.*
 China: a reviving power (letter), S.-T. Li, 47
 Chiocchio, S. R., *et al.*: 5-Hydroxytryptamine in the carotid body of the cat, 790; erratum, 1556
 Choate, R. See Christensen, E. M., *et al.*
 Cholinergic binding capacity of proteolipids from isolated nerve-ending membranes, E. De Robertis *et al.*, 928
 Chondritic meteorites and the lunar surface, J. A. O'Keefe and R. F. Scott, 1174
 Chou, C. See Wurtman, R. J., *et al.*
 Chou, S.-M.: Myxovirus-like structures in a case of human chronic polymyositis, 1453
 Christensen, E. M., *et al.*: Surveyor V: lunar surface mechanical properties, 637
 Chromatography warning (letter), W. R. Middlebrook, 855
 Chromium and nickel in the fig tree shale from South Africa, R. V. Danchin, 261
 Chromosome abnormality in rat leukemia induced by 7,12-dimethylbenz[a]anthracene, T. Sugiyama *et al.*, 1058
 Cis-trans isomerism in naphthoquinones: interconversion and participation in oxidative phosphorylation, D. L. Gutnick *et al.*, 1469
 Clark, A. J. See Yamada, C., *et al.*
 CLARK, L. R., *et al.*: The ecology of insect populations in theory and practice, book review of, 622
 Clarke, G. L.: book review of Aspects of marine zoology, 1441
 Cleaver, J. E. See Heddle, J. A., *et al.*
 Cleft lip and cleft palate (meeting report), F. C. Fraser, 1603
 Clement, A. C., and A. Tyler: Protein-synthesizing activity of the anucleate polar lobe of the mud snail *Ilyanassa obsoleta*, 1457
 Clinical judgment, A. R. FEINSTEIN, book review by L. Lasagna, 246
 Coates, J. F. See Osterburg, J. W.
 Coccoliths as paleoclimatic indicators of Pleistocene glaciation, A. McIntyre, 1314
 Cockcroft, D. W. See Copp, D. H., *et al.*
 COE, M. D., and K. V. FLANNERY: Early cultures and human ecology in south coastal Guatemala, book review of, 364
 Cognitive capacity of very young children, J. Mehler and T. G. Bever, 141
 Cohen, B. J.: book review of Husbandry of laboratory animals, 1560
 Cohen, B. J., and B. J. Powell: Animal care: voluntary accreditation (letters), 1621
 Cohen, G. See Rosa, R. J., *et al.*
 Cohen, J. A.: Chemistry and structure of nucleic acids of bacteriophages, 343
 Colburn, D. S., *et al.*: Diamagnetic solar-wind cavity discovered behind Moon, 1040
 COLE, A. (Ed.), Theoretical and experimental biophysics, book review of, 108
 Coleman, P. J., Jr. See Bender, P. J., *et al.* See also Bridge, H. S., *et al.*
 Collective oscillations in a plasma, A. I. AKHIEZER *et al.*, book review by I. B. Bernstein, 765
 Collins, R. J. See Gault, D. E., *et al.*
 Colostral immunoglobulin-A: synthesis in vitro of T-chain by rabbit mammary gland, R. Asofsky and P. A. Small, Jr., 932
 Colten, H. R., *et al.*: Efficiency of the first component of complement (C1) in the hemolytic reaction, 1590
 Commas awry (letter), A. G. Oettinger, 1525
 Common English, please! (letter), N. B. Reynolds, 995
 Comparative medicine (meeting report), W. I. Gay, 1220
 Comparative x-ray and neutron diffraction study of bonding effects in *S*-triazine, P. Coppens, 1577
 CONALTY, M. L. (Ed.), Husbandry of laboratory animals, book review of, 1560
 Concanavalin A reaction with human normal immunoglobulin G and myeloma immunoglobulin G, M. A. Leon, 1325
 Concept of a national measurement system, R. D. Huntoon, 67
 Congenital malformations induced by mescaline, lysergic acid diethylamide, and bromolysergic acid in the hamster, W. F. Geber, 265
 Contemporary change in traditional societies, J. H. STEWARD (Ed.), book review by E. R. Wolf, 759
 Continental drift and spreading of ocean floors, E. Karp, 947
 Control of aldosterone secretion by the pituitary gland, W. P. Palmore and P. J. Mulrow, 1482
 Cooper, M. D. See Blaw, M. E., *et al.*
 Cooper, R. S.: Haskin Laboratories: research on human communication, marine ecology, and the biochemistry of protozoa (AAAS), 1213
 Cooper, W. J. See Blumer, M.
 Coops, M. S. See Hulet, E. K., *et al.*
 Copp, D. H., *et al.*: Calcitonin from ultimobranchial glands of dogfish and chickens, 924
 Coppens, P.: Comparative x-ray and neutron diffraction: study of bonding effects in *S*-triazine, 1577
 Correspondence of Isaac Newton, The, vol. 4, J. F. SCOTT (Ed.), book review by D. J. de Solla Price, 1298
 Cotran, R. S. See LoBuglio, A. F., *et al.*
 Cover pictures: Antarctic Radiolaria (24 Nov.); automated experiments (6 Oct.); cosmology (10 Nov.); Eskimo masks (29 Dec.); frozen membrane (3 Nov.); *Globigerina bulloides* (d'Orbigny) (8 Dec.); marine science (17 Nov.); moth retinulae (13 Oct.); otolith (20 Oct.); red cells (22 Dec.); stercoraceous parasol (15 Dec.); triplanar rotation (27 Oct.); web building (1 Dec.)
 Cowles, R. B., *et al.*: Black pigmentation: adaptation for concealment or heat conservation?, 1340
 Cowan, C. M. See Thorson, T. B., *et al.*
 Craig, A. K.: Lithophagic snail from southern British Honduras, 795
 Creange, J. E. See Roberts, S., *et al.*
 Crime, science, and technology (AAAS), J. W. Osterburg and J. F. Coates, 1079
 Croizet, M. See Blanquet, P., *et al.*

INDEX TO VOLUME 158

- Cromwell, J. *See* Broecker, W. S., *et al.*
 Cronyn M. W. *See* Youtz, B. L., *et al.*
 CROSLAND, I. M., The society of Arcueil, *book review* of, 1660
 Crowe, J. *See* Kylstra, J. A., *et al.*
 Crystal structure of the 1:1 complex of 5-fluorouracil and 9-ethylhypoxanthine, S.-H. Kim and A. Rich, 1046
 CRUON, R. (Ed.), Queuing theory: recent developments and applications, *book review* of, 1298
 "C"-type viral particles in plasma of cats with feline leukemia, T. G. Kawakami *et al.*, 1049
 Culberson, C. F. *See* Culberson, W. L.
 Culberson, W. L., and C. F. Culberson: Habitat selection by chemically differentiated races of lichens, 1195
 Currie, R. G. *See* Colburn, D. S., *et al.*

D

- Daily rhythm in tyrosine concentration in human plasma: persistence on low-protein diets, R. J. Wurtman *et al.*, 660
 Damaging source of air pollution, A (*editorial*), P. H. Abelson, 1527
 Danchin, R. V.: Chromium and nickel in the fig tree shale from South Africa, 261
 Dangers of reprogramming cells (*letter*), J. Lederberg, 313
 Dangers to marine mammals confirmed (*letter*), R. L. Van Citters, 206
 Daniel, E. E.: *book review* of Drugs affecting the peripheral nervous system, 900
 Daniel, J. R., Jr. *See* Krishnan, R. S.
 Dankert, M. *See* Robbins, P. W., *et al.*
 DARNELL, J. E. *See* LURIA, S. E.
 Davey, K. G., and W. R. Breckenridge: Neurosecretory cells in a cestode, *Hymenolepis diminuta*, 931
 David, H., *et al.*: Social science report to DOD (*letters*), 1624
 DAVIDSON, E. A., Carbohydrate chemistry, *book review* of, 1299
 Davidson, G. *See* Weertman, J., *et al.*
 DAVIES, D. R. *See* CANTONI, G. L.
 Davis, K.: Population policy: will current programs succeed?, 730
 Davis, L., Jr. *See* Bridge, H. S., *et al.*
 Davis, R. E. *See* Agranoff, B. W., *et al.*
 Daw, N. W.: Goldfish retina: organization for simultaneous color contrast, 942
 Deamer, D. W., and D. Branton: Fracture planes in an ice-bilayer model membrane system, 655
 Decades ahead from a publisher's view, The, E. E. Booher, 882
 Decay of visual information from a single letter, M. I. Posner and S. W. Keele, 137
 Decline of the lobster (*letter*), R. G. S. Bidwell, 1136
 Deep-sea tides: a program, W. H. Munk and B. D. Zetler, 884
 Defensive use of a "fecal shield" by a beetle larva, T. Eisner *et al.*, 1471
 Deformation lamellae parallel to (1013) and (0001) in quartz of the Coeur d'Alene district, Idaho, W. R. Greenwood, 1180
 De Leon, B. *See* Bergeijk, W. A., *et al.*
 DENISOV, E. T. *See* EMANUEL, N. M., *et al.*
 Dent, P. B. *See* Rawls, W. E., *et al.*
 Derrick, M.: Superconducting magnets in high-energy physics, 325
 De Robertis, E., *et al.*: Cholinergic binding capacity of proteolipids from isolated nerve-ending membranes, 928
 Derry, D. M., and L. S. Wolfe: Gangliosides in isolated neurons and glial cells, 1450

- de Solla Price, D. J.: *book reviews* of Astronomicum Caesareum, 102; The correspondence of Isaac Newton, vol. 4, 1298
 DeSombre, E. R. *See* Jensen, E. V., *et al.*
 Detergent-solubilized RNA polymerase from cells infected with foot-and-mouth disease virus, R. B. Arlinghaus and J. Polatnick, 1320
 DeWitt C. B., *et al.*: Behavioral thermoregulation in the desert iguana, 809
 Dews, P. B., *et al.*: Brain research (*meeting report*), 951
 de Wys, J. N.: Surveyor V: magnet experiment, 632
 Diamagnetic solar-wind cavity discovered behind Moon, D. S. Colburn *et al.*, 1040
 Dichoptic viewing and temporal discrimination: an attempted replication, D. H. Thor and D. N. Robinson, 1704
 Dickson, L. L. *See* DeWitt, C. B., *et al.*
 Dictionary of the biological sciences, The, P. GRAY, *book review* of, D. Rudnick, 1442
 Diener, T. O., and W. B. Raymer: Potato spindle tuber virus: a plant virus with properties of a free nucleic acid, 378
 DIENES, M. (Ed.), Energy conversion by the photosynthesis apparatus, *book review* of, 1662
 Difficult art of giving: the epic of Alan Gregg, W. PENFIELD, *book review* by T. B. Turner, 1169
 2,5-Dimethoxy-4-methyl-amphetamine (STP): a new hallucinogenic drug, S. H. Snyder *et al.*, 669
 DiPaolo, J. A., and G. J. Alexander: LSD: effect on offspring, 522
 DIRAC, P. A. M., Lectures on quantum field theory, *book review* of, 623
 Direct synaptic connection mediating both excitation and inhibition, H. Wachtel and E. R. Kandel, 1206
 Direction of chain growth in polysaccharide synthesis, P. W. Robbins *et al.*, 1536
 Direction of translation in bacteriophage S13, I. Tessman *et al.*, 267
 Disenfranchised AAAS membership (*letter*), A. W. Galston, 996
 Dissociation of the visual placing response into elicited and guided components, A. Hein and R. Held, 390
 Distribution of chromatins at mitosis, J. A. Heddle *et al.*, 929
 Diurnal rhythm of sensitivity of cotton seedlings to herbicides, J. G. Gosselink and L. C. Standifer, 120
 Dixon, F. J. *See* Oldstone, M. B. A.
 DOBÓ, J. and P. HEDVIG (Eds.), Second Tihany symposium on radiation chemistry, *book review* of, 366
 Dobzhansky, T. L.: Russian genetics: emerging from Lysenko (*letter*), 577; The biology of ultimate concern, *book review* of, 765
 Doctor shortage, The, R. FEIN, *book review* by G. J. Stigler, 1662
 Dodonova, N. N. *See* Altstein, A. D., *et al.*
 Does science neglect society? (*letters*), H. Wynberg *et al.*, 1134
 DONNELLY, R. J., Experimental superfluidity, *book review* of, 1442
 Dosimetry: high-energy radiation therapy (*meeting report*), J. S. Laughlin, 1499
 Dostal, H. C., and A. C. Leopold: Gibberellin delays ripening of tomatoes, 1579
 Dowling, J. E. (*News and Comment*): Nobel prize awarded to George Wald, 468
 Dreicer, H.: *book review* of Electrons, ions, and waves, 482
 Drug information (*meeting report*), C. D. Leake, 161
 Drugs affecting the peripheral nervous system, A. BURGER (Ed.), *book review* by E. E. Daniel, 900
 Du Mond, F. V. and T. C. Hutchinson: Squirrel monkey reproduction: the "fatted" male phenomenon and seasonal spermatogenesis, 1067
 Dumora, F. *See* Blanquet, P., *et al.*
 DUNCAN, C. J., The molecular properties and evolution of excitable cells, *book review* of, 1561
 Dungworth, D. L. *See* Kawakami, T. G., *et al.*
 Dunphy, P. J. *See* Gutnick, D. L., *et al.*
 Dutton, G. B., Jr.: AMA persecution complex (*letter*), 1622
 Dyson, R. H., Jr.: *book review* of The traditional crafts of Persia, 248

E

- Early cultures and human ecology in south coastal Guatemala, M. D. COE and K. V. FLANNERY, *book review* by E. W. Andrews, IV, 364
 Earth beneath the continents, The, J. S. STEINHART and J. T. SMITH (Eds.), *book review* by T. V. McEvilly, 763
 East Africa: science for development, T. R. Odhiambo, 876
 Eaton, J. P. *See* Bateman, P. C.
 ECCLES, J. C., *et al.*, The cerebellum as a neuronal machine, *book review* of, 1439
 Ecological ectocrines in experimental epidemiology, H. A. Schneider, 597
 Ecology of insect populations in theory and practice, The, L. R. CLARK *et al.*, *book review* by E. O. Wilson, 622
 Editorials: Achievement and management, 721; Advancement of the nation's health, 53; Are we to abandon the planets to the Soviet Union?, 1405; A damaging source of air pollution, 1527; Funds for new graduate students, 583; Meeting world food needs, 865; New words, 1627; Privacy, 323; Selective Service solution, 1271; Soviet population theory, 999; Student anxiety, 1139; Student unrest, 443; Technology assessment, 209
 Effect of amantadine hydrochloride on the response of human lymphocytes to phytohemagglutinin, W. E. Rawls *et al.*, 506
 Efficiency of the first component of complement (C1) in the hemolytic reaction, H. R. Colten *et al.*, 1590
 Efron, L. *See* Anderson, J. D., *et al.*
 Eisele, C.: *book review* of The mathematical papers of Isaac Newton, 245
 Eisenberg, R. S., and P. W. Gage: Frog skeletal muscle fibers: changes in electrical properties after disruption of transverse tubular system, 1700
 Eisenberg, R. S. *See* Gage, P. W.
 EISENMAN, G. (Ed.), Glass electrodes for hydrogen and other cations, *book review* of, 625
 Eisner, T., *et al.*: Defensive use of a "fecal shield" by a beetle larva, 1471
 Electron micrographs of limestones and their nannofossils, A. G. FISCHER *et al.*, *book review* by K. M. Towe, 1559
 Electron microprobe and optical absorption study of colored kyanites, E. W. White and W. B. White, 915
 Electron microscopy: enhancement of specimen contrast by injection of atoms, J. H. Manley, 1585
 Electronic properties of amorphous materials, J. Tauc, 1543
 Electrons, ions, and waves, S. C. BROWN

INDEX TO VOLUME 158

- (Ed.), book review by H. Dreicer, 482
 Electrophoretic variants of α -glycerophosphate dehydrogenase in *Drosophila melanogaster*, E. H. Grell, 1319
 Ellis, G. W. See Allen, R. D., et al.
 Elsasser W. M.: book review of Magnetism and the cosmos, 764
 EMANUEL, N. M., et al., Liquid-phase oxidation of hydrocarbons, book review of, 248
 Emery, K. O., et al.: Freshwater peat on the continental shelf, 1301
 EMERY, W. B., Lost land emerging, book review of, 483
 Energy conversion by the photosynthesis apparatus, M. DIENES (Ed.), book review by D. O. Hall, 1662
 Enforcement of animal care bill (letter), M. Anchel, 577
 Engelsberg, S.: book review of Magnetism in solids, 1168
 Enhancement of flicker by lateral inhibition, F. Ratliff et al., 392
 Enthalpy of transformation of a high-pressure polymorph of titanium dioxide to the rutile modification, A. Navrotsky et al., 388
 Enzyme concentrations in tissues, P. A. Srere, 936
 Enzyme induction by corticosteroids in embryonic cells: steroid structure and inductive effect, A. A. Moscona and R. Piddington, 496
 Enzyme reaction rates at limited water activities, J. J. Skujins and A. D. McLaren, 1569; erratum, 1556
 Errata: for News and Comment (13 Oct., p. 235), 361; (3 Nov., p. 613), 1034; (17 Nov., p. 895), 1167; for R. A. Sjodin and L. A. Beauge [156, 1248 (1967) J, 1034]
 Erythrocyte transfer RNA: change during chick development, J. C. Lee and V. M. Ingram, 1330
 Eshleman, V. R.: Radar astronomy, 585
 Eskimo masks, D. J. RAY, book review by J. M. Campbell, 1660
 Essay on criticism (letter), D. Loman, 718
 ESTABROOK, R. W. See CHANCE B., et al.
 Eugster, H. P. See Jones, B. F., et al.
 Eutrophication (meeting report), A. D. Hasler and M. E. Swenson, 278
 EVANS, G. C. See BAINBRIDGE, R., et al.
 Evans, G. E., and K. V. Kordes: Hydrazine-air fuel cells, 1148
 Evans, R. F. See Shaeffer, J. R., et al.
 Evanson, J. M., et al.: Human collagenase: identification and characterization of an enzyme from rheumatoid synovium in culture, 499
 Evarts, E. V.: book review of The cerebellum as a neuronal machine, 1439
 Eugster, H. P.: The supernova of 1572, 522
 Evolution of structure and function of proteases, H. Neurath et al., 1638
 Experimental allergic encephalomyelitis in agammaglobulinemic chickens, M. E. Blaw et al., 1198
 Experiential deprivation and later behavior, J. L. Fuller, 1645
 Experimental superfluidity, R. J. DONNELLY, book review by G. L. Pollack, 1442
 Eyring, E. M. See Eyring, H.
 Eyring, H., and E. M. Eyring: (News and Comment): Nobel prize in chemistry awarded to Eigen, Norrish, and Porter, 746
- F**
- Faillace, L. See Snyder, S. H., et al.
 Fairervis, W. A., Jr.: book review of Lost land emerging, 483
 FAIRWEATHER, G. W., Methods for experimental social innovation, book review of, 1037
 Faller, J. E.: Precision measurement of the acceleration of gravity, 60
 Fallout from the Chinese nuclear explosion of 17 June 1967, M. A. Reynolds et al., 1692
 Farming systems and political growth in ancient Oaxaca, K. V. Flannery et al., 445
 Fast potential spike of frog skin generated at the outer surface of the epithelium, B. Lindemann and U. Thorns, 1473
 Fastie, W. G. See Barth, C. A., et al.
 Fein, H. See Nicholls, J. G., et al.
 FEIN, R., The doctor shortage, book review of, 1662
 FEINSTEIN, A. R., Clinical judgment, book review of, 246
 Feinstein, B. See Libet, B., et al.
 Ferguson, D. E. See Landreth, H. F.
 FIELDER, G., Lunar geology, book review of, 105
 Fife, W. K.: Unlimited national resources? (letter), 207
 Fin, A. L. See Nicholls, J. G., et al.
 Fireman, E. L. See McCorkell, R., et al.
 FISCHER, A. G., et al., Electron micrographs of limestones and their nanofossils, book review of, 1559
 Fiszer, S. See De Robertis, E., et al.
 Fjeldbo, G. See Kliore, A., et al.
 Flannery, K. V., et al.: Farming systems and political growth in ancient Oaxaca, 445
 FLANNERY, K. V. See COE, M.D.
 Flessel, C. P., et al.: Polyribosomes of growing bacteria, 658
 Fletcher, J. E.: Weather modification (AAAS), 276
 Florey, E.: book review of Nervous and hormonal mechanisms of integration, 624
 Flux density of Cassiopedia-A at 3.0 megacycles per second, R. Parthasarathy, 1449
 Flyspeck on Glacier Peak (letter), A. A. Peugnet, 205
 Food proteins: new sources from seeds, A. M. Altschul, 221
 Food value of red tide (*Gonyaulax polyedra*), S. Patton et al., 789
 Forget, B. G., and S. M. Weissman: Nucleotide sequence of KB cell 5S RNA, 1695
 Foster, W.: Hormone-mediated nutritional control of sexual behavior in male dung flies, 1596
 Fountain Committee report (letter), L. H. Fountain, 995
 Fountain, L. H.: Fountain Committee report (letter), 995
 FOWLER, W. A., Nuclear astrophysics, book review of, 249
 Fracture planes in an ice-bilayer model membrane system, D. W. Deamer and D. Branton, 655
 Frank, L. A. See Van Ellen, J. A., et al.
 FRANKEL, R. R. See FREEMAN, A. J.
 Franklin, R. M.: book review of General virology, 484
 Franzgrote, E. J. See Turkevich A. L., et al.
 Fraser, F. C.: Cleft lip and cleft palate (meeting report), 1603
 FREEMAN, A. J., and R. R. FRANKEL (Eds.), Hyperfine interactions, book review of, 1036
 Freeman, C.: Research comparisons, 463
 Freeman, F. R., and W. F. Loomis: Vitamin D and skin pigments (letters), 579
 Fresh water and cheap power for tropical islands (letter), R. G. W. Willcocks, 1525
 Freshwater peat on the continental shelf, K. O. Emery et al., 1301
 Friedman, H., and E. T. Byram: X-rays from sources 3C 273 and M 87, 257
 Friedman, J. R. See Wynberg, H., et al.
 Friedman, L., and A. P. Irsa: Variations in the isotopic composition of carbon in urban atmospheric carbon dioxide, 263
 Frisch, K. V., et al.: Honeybees: do they use direction and distance information provided by their dancers?, 1072
 Frog skeletal muscle fibers: changes in electrical properties after disruption of transverse tubular system, R. S. Eisenberg and P. W. Gage, 1700
 Frontiers in physiological psychology, R. W. RUSSELL (Ed.), book review by M. R. Rosenweig, 1173
 Fuchs, L. H.: Stanfieldite: a new phosphate mineral from stony-iron meteorites, 910
 Fuller, G. See Patton, S., et al.
 Fuller, J. L.: Experimental deprivation and later behavior, 1645
 Fuller, R. C. See Nugent, N. A.
 Funds for new graduate students (editorial), P. H. Abelson, 583
 Fuson, N.: Recorded hearsay (letter), 996
 Future of scientific journals, The, W. S. Brown et al., 1153
- G**
- Gage, P. W., and R. S. Eisenberg: Action potentials without contraction in frog skeletal muscle fibers with disrupted transverse tubules, 1702
 Gage, P. W. See Eisenberg, R. S.
 Galaxies as gravitational lenses, D. Sadeh, 1176
 Gallegos, E. S. See Kenshalo, D. R.
 Galli-Olivier, C.: Pediplain in northern Chile and the Andean uplift, 653
 Galston, A. W.: Disenfranchised AAAS membership (letter), 996
 Gamma globulins: structure and control of biosynthesis (meeting report), F. W. Putnam, 813
 Gamow G.: History of the universe, 766
 Gangliosides in isolated neurons and glial cells, D. M. Derry and L. S. Wolfe, 1450
 Garcíá, I. R. A. See Rosa, R. J., et al.
 GARDNER, D. P., The California oath controversy, book review of, 897
 GARRISON, R. E. See FISCHER, A. G., et al.
 Gaston, S., and M. Menaker: Photoperiodic control of hamster testis, 925
 Gastropod *Urosalpinx*: pH of accessory boring organ while boring, M. R. Carriker et al., 920
 Gault, D. E., et al.: Surveyor V: discussion of chemical analysis, 641
 Gay, W. I.: Comparative medicine (meeting report), 1220
 Geber, W. F.: Congenital malformations induced by mescaline, lysergic acid diethylamide and bromolysergic acid in the hamster, 265
 GEIER, P. W. See CLARK, L. R., et al.
 Gekkonid lizards adapt fat storage to desert environments, H. R. Bustard, 1197
 Gelderman, A. G. See Peacock, A. C., et al.
 General virology, S. E. LURIA and J. E. DARRELL, Jr., book review by R. M. Franklin, 484
 Genetic background and expressivity of histocompatibility genes, W. K. Silvers and R. E. Billingham, 118
 Genus *Pinus*, The, N. T. MIROV, book review by E. L. Little, Jr., 626
 Geological exploration in an East Coast submarine canyon from a research

INDEX TO VOLUME 158

- submersible, J. V. A. Trumbull and M. J. McCamis, 370
 Geology along the North Atlantic: Gander conference (*meeting report*), H. P. Woodward, 1368
- Gergen, K. J.: *book review* of The Moynihan Report and the politics of controversy, 896
- Giant axon of *Myxicola*: some membrane properties as observed under voltage clamp, L. Binstock and L. Goldman, 1467
- Gibb, R. P., Jr. *See* Rosa R. J., et al.
 Gibberellin delays ripening of tomatoes, H. C. Dostal and A. C. Leopold, 1579
- GILBERT, P. W., et al. (Eds.), Sharks, skates, and rays, *book review* of, 1038
- Gill, E. D.: Stability of biogenetic opal, 810
- Glass electrodes for hydrogen and other cations, G. EISENMAN (Ed.), *book review* by M. E. Thompson, 625
- Glucksberg, S., and L. J. King: Motivated forgetting mediated by implicit verbal chaining: a laboratory analog of repression, 517
- Glutathione deficiency in sheep erythrocytes, J. E. Smith and B. I. Osburn, 374
- Godfrey, P. J. *See* Billings, W. D.
- Goldfish retina: organization for simultaneous color contrast, N. W. Daw, 942
- Goldman, L. *See* Binstock, L.
- Goldsmith, J. R., and A. C. Hexter: Respiratory exposure to lead: epidemiological and experimental dose-response relationship, 132
- Goldwasser, E. L., and D. S. Greenberg: Accelerator project problems (*letters*), 48
- Gonzalez, R. C., et al.: Reversal learning and forgetting in bird and fish, 519
- Good, R. A. *See* Blaw, M. E., et al.
See also Perey, D. Y. E., et al. *See also* Rawls, W. E., et al.
- Goodman, R. E. *See* Cadman, J. D.
- Gordon, C. C.: Montana's crusading scientists (*letter*), 1524
- Gordon, G.: *book review* of The organization of inquiry, 482
- Gordon Research Conferences: winter program, 1968 (*meeting report*), 1086
- Gosselink, J. G., and L. C. Standifer: Diurnal rhythm of sensitivity of cotton seedlings to herbicides, 120
- GRANIT, R., Charles Scott Sherrington, *book review* of, 1035
- GRASSÉ, P.-P. (Ed.), *Traité de zoologie: anatomie, systématique, biologie*, vol. 16, *book review* of, 625
- Gravity, deformation and the earth's crust, as studied by centrifuged models, H. RAMBERG, *book review* by D. L. Anderson, 1561
- Gray, P.: *book review* of The Larousse encyclopedia of animal life, 898
- GRAY, P., The dictionary of the biological sciences, *book review* of, 1442
- Greenberg, D. S. (*News and Comment*): Expanded role urged for Defense Department, 886; federal economizing, 473; Fountain committee and NIH, 611; Frankel resigns from State, 1436; housing, 1432; money for NSF, 357; money for research, 230; NIH and Shannon's retirement, 1165; NSF issues administrative study, 890; NSF issues new education survey, 96; Smale and NSF, 98, 618; Soviet space program, 1027; synthesis of DNA, 1548. *See also* David, H., et al. *See also* Goldwasser, E. L.
- Greenwood, W. R.: Deformation lamellae parallel to (1013) and (0001) in quartz of the Couer d'Alene district, Idaho, 1180
- Grell, E. H.: Electrophoretic variants of α -glycerophosphate dehydrogenase in *Drosophila melanogaster*, 1319
- Growth of isolated mesophyll cells of *Arachis hypogaea* in simple defined medium *in vitro*, P. C. Joshi and G. R. Noggle, 1575
- Grundfest, H.: *book review* of The molecular properties and evolution of excitable cells, 1561
- Gutknecht, J.: Membranes of *Valonia ventricosa*: apparent absence of water-filled pores, 787
- GUTTMANN, F., and L. E. LYONS, Organic semiconductors, *book review* of, 1663
- Gutnick, D. L., et al.: *Cis-trans* isomerism in naphthoquinones: interconversion and participation in oxidative phosphorylation, 1469
- Gutz, H.: "Twin meiosis" and other ambivalences in the life cycle of *Schizosaccharomyces pombe*, 796
- ## H
- Haarstad, V. B., et al.: New source for MS-222 (*letters*), 1524
- Habitat selection by chemically differentiated races of lichens, W. L. Culbertson and C. F. Culbertson, 1195
- Hafez, E. S. E.: Mammalian oviduct: international symposium (*meeting report*), 1606
- Halasz, N. A. *See* Tai, C.
- Hall, D. M.: Wax microchannels in the epidermis of white clover, 505
- Hall, D. O.: *book review* of Energy conversion by the photosynthesis apparatus, 1662
- Hameran, D. *See* Janis, R., et al.
- Hamilton, W. J., III. *See* Cowles, R. B., et al.
- Hammel, T. *See* Cabanac, M., et al.
- Hammon, W. McD. *See* Hanson, R. P., et al.
- Hanawalt, P. C. *See* Brunk, C. F.
- Hanson, R. P., et al.: Arbovirus infections of laboratory workers, 1283
- Haptoglobin levels in serum of various strains of mice, A. C. Peacock et al., 1703
- Hardy, J. D. *See* Cabanac, M., et al.
See also Rawson, R. O., et al.
- Hargis, W. J., Jr.: Virginia's marine institution (*letter*), 1622
- Harington, C. R. *See* Porsild, A. E., et al.
- Harris, J., et al.: Pi complexes in biological systems (*meeting report*) 1706
- HART, H., and G. J. KARABATSOS (Eds.), Advances in alicyclic chemistry, *book review* of, 1039
- Hartline, H. K. *See* Ratliff, F., et al.
- Hartmann, W. K.: *book review* of Lunar geology, 105
- Haskin Laboratories: research on human communication, marine ecology, and the biochemistry of protozoa (AAAS), R. C. Cooper, 1213
- Hasler, A. D., and M. E. Swenson: Eutrophication (*meeting report*), 278
- Haug, P., et al.: Isoprenoid and dicarboxylic acids isolated from Colorado Green River shale (Eocene), 772
- Haugen, R. K.: Tree ring indices: a circum-polar comparison, 773
- Havelock, R. G.: *book review* of Methods for experimental social innovation, 1037
- HAYASHI, T. (Ed.), Olfaction and taste II, *book review* of, 1664
- Hays, J. D., and N. D. Opdyke: Antarctic Radiolaria, magnetic reversals, and climatic change, 1001
- Hazards of iodine-131 fallout in Utah (AAAS), E. W. Pfeiffer, 397
- Heddle, J. A., et al.: Distribution of chromatids at mitosis, 929
- Hedgpeth, J. W.: *book review* of Pollution and marine ecology, 1300
- HEDVIG, P. *See* DOBÓ, J.
- Heeschen, D. S.: Radio astronomy: a large antenna array, 75
- Heiman, M.: UFO's: ideal space inhabitants (*letter*), 580
- Hein, A., and R. Held: Dissociation of the visual placing response into elicited and guided components, 390
- Heitzler, J. R. *See* Herron, E. M.
- Held, R. *See* Hein, A.
- Heltne, P. G., and M. Buchinger: Latin America: call for conservation (*letters*), 717
- Hemes and hemoproteins, B. CHANCE et al. (Eds.), *book review* by J. B. Wittnerberg, 485
- Hemley J. J., et al.: Sulfide solubilities in alteration-controlled systems, 1580
- Hemoglobin and its reaction with ligands, E. Antonini, 1417
- Hemoglobin variants in Koreans: hemoglobin G Taegu, R. Q. Blackwell et al., 1056
- Henry, K. R.: Audiogenic seizure susceptibility induced in C57B1/6J mice by prior auditory exposure, 938
- HENRY, S. M. (Ed.), Symbiosis, vol. 2, *book review* of, 366
- Hepatomas (*meeting report*), S. Weinhouse 542
- Heppner, F. *See* Cowles, R. B., et al.
- Herdman, R. C. *See* Perey, D. Y. E., et al.
- Herron, E. M., and J. R. Heitzler: Seafloor spreading near the Galapagos, 775
- Hess, W. R.: Causality, consciousness, and cerebral organization, 1279
- Hester, A. C. *See* Goldsmith, J. R.
- Heyneman, D., and B.-L. Lim: *Angiostrongylus cantonensis*: proof of direct transmission with its epidemiological implications, 1057
- Hicks, G. P. *See* Updike, S. J.
- High energy physics, E. H. S. BURHOP (Ed.), *book review* by P. A. Carruthers, 251
- Hildebrand, M.: Smoke-filled friendships (*letter*), 1266
- HILLS, E. S. (Ed.), Arid lands, *book review* of, 106
- HINDMARSH, W. R., et al. (Eds.), Magnetism and the cosmos, *book review* of, 764
- Hirano, M., et al.: Murine lymphoma: augmented growth in mice in pertussis vaccine-induced lymphocytosis, 1061
- Histocompatibility antigen transfer *in utero*: tolerance in progeny and sensitization in mother, C. Tai and N. A. Halasz, 125
- Historical aspects of microscopy, S. BRADBURY and G. L'E. TURNER (Eds.), *book review* by W. L. Hyde, 622
- History of four-footed beasts and serpents and insects, The, E. TOPSELL and T. MUFFET, *book review* by H. Woolf, 1663
- History of the universe, G. Gamow, 766
- Hobbs, P. V., and T. Osheroff: Splashing of drops on shallow liquids, 1184
- Hodgson, C. J. *See* Hemley, J. J., et al.
- Hoffman, H. *See* Peacock, A. C., et al.
- Hogan, A. W.: Ice nuclei from direct reaction of iodine vapor with vapors from leaded gasoline, 800
- Hollister, L. *See* Snyder, S. H., et al.
- Hollister, L. S., and A. E. Bence: Staurolite: sectoral compositional variations, 1053
- Holt, H. E. *See* Shoemaker, E. M., et al.
- Holzman, P. S.: *book review* of Individuality in pain and suffering, 1558
- Holzwarth, G.: *book review* of Optical

INDEX TO VOLUME 158

ix

- rotatory dispersion and circular dichroism in organic chemistry, 1664
Honea, R. M. *See* Strangway D. W., *et al.*
- Honeybees: do they use direction and distance information provided by their dancers? K. V. Frisch *et al.*, 1072
HONJO, S. *See* FISCHER, A. G., *et al.*
- Hook, E. B., and D. Wolfe: Upward spiral of cost and dues (*letters*), 854
HOPKINS, D. M. (Ed.), The Bering land bridge, *book review* of, 1168
Horel, J. A. *et al.*: Average evoked responses and learning, 394
Hormone-dependent differentiation of immature mouse mammary gland in vitro, A. E. Voytovich and Y. J. Topper, 1326
Hormone-mediated nutritional control of sexual behavior in male dung flies, W. Foster, 1596
Hormones and endocrine glands of fishes, H. A. Bern, 455
Hornig, J. E.: *book review* of Organic semiconductors, 1663
Hotchin, J. *See* Baker, F. D.
Howard, B. D.: Phage lambda mutants deficient in r_{II} exclusion, 1588
Howe, C. D. *See* Hirano, M., *et al.*
Howlett, L. E.: International basis for uniform measurement, 72
Huang, J. T.-H. *See* Blackwell, R. Q., *et al.*
HUGHES, G. M. (Ed.), Nervous and hormonal mechanisms of integration, *book review* of, 624
HUGHES, R. D. *See* CLARK, L. R., *et al.*
Hulet, E. K., *et al.*: Mendelevium: divalency and other chemical properties, 486
Human collagenase: identification and characterization of an enzyme from rheumatoid synovium in culture, J. M. Evanson *et al.*, 499
Huntoon, R. D.: Concept of a national measurement system, 67
Hurst, D. J. *See* Jensen, E. V., *et al.*
Husbandry of laboratory animals, M. L. CONALTY (Ed.), *book review* by B. J. Cohen, 1560
Hutchinson, T. C. *See* Du Mond, F. V.
Hutton, R. E. *See* Christensen, E. M., *et al.*
Hyde, L. W.: *book review* of Historical aspects of microscopy, 622
Hydraulic compression of mice to 166 atmospheres, J. A. Kylstra *et al.*, 793
Hydrazine-air fuel cells, G. E. Evans and K. V. Kordesch, 1148
5-Hydroxytryptamine in the carotid body of the cat, S. R. Chiocchio *et al.*, 790; *erratum*, 1556
Hyperfine interactions, A. J. FREEMAN and R. R. FRANKEL (Eds.), *book review* by T. R. Carver, 1036
- I**
- Iben, I., Jr.: *book review* of Nuclear astrophysics, 249
Ice nuclei from direct reaction of iodine vapor with vapors from leaded gasoline, A. W. Hogan, 800
Ikegami, S., *et al.*: Starfish gonad: action and chemical identification of spawning inhibitor, 1052
Imidazole: fungitoxic derivatives, H. Tolkmith *et al.*, 1462
Imine-bonding in membrane transport of monosaccharides: invalidity of kinetic evidence, P. G. LeFevre, 274
Immunization with skin isografts taken from tolerant mice, D. Steinmuller 127
Immunological time scale for hominid evolution, V. M. Sarich and A. C. Wilson, 1200
- Indium variations in a petrologic suite of L-group chondrites, S. N. Tandon and J. T. Wasson, 259
Individuality in pain and suffering, A. PETRIE, *book review* by P. S. Holzman, 1558
Induction of coiling in tendrils by auxin and carbon dioxide, L. Reinhold, 791
Information and control processes in living systems (*meeting report*), D. M. Ramsey, 1706
Information distribution: a plea for efficiency (*letter*), W. S. Budington, 320
Ingold, K. U.: *book review* of Liquid-phase oxidation of hydrocarbons, 248
Ingram, V. M. *See* Brostoff, S. W. *See also* Lee, J. C.
Institution and outcome, L. P. ULLMANN, *book review* by R. N. Wilson, 1170
"The intelligent man's guide" to the 1967 AAAS meeting (AAAS), W. G. Berl, 1342
International basis for uniform measurement, L. E. Howlett, 72
Interval analysis, R. E. MOORE, *book review* by J. F. Traub, 365
Intracellular pool of unhydroxylated polypeptide precursors of collagen, R. S. Bhatnagar *et al.*, 492
"Intrinsic" immunological tolerance in allophenic mice, B. Mintz and W. K. Silvers, 1484
Introduction to the quantum theory of scattering, L. S. RODBERG and R. M. THALER, *book review* by R. G. Newton, 762
Invertebrate nervous systems: their significance for mammalian neurophysiology, C. A. G. WIERSMA (Ed.), *book review* by T. H. Waterman, 1661
Iodine determined in purified thyrocalcitonin, P. Blanquet *et al.*, 381
Irsa, A. P. *See* Friedman, L.
Isaacs, J. D. *See* Lvov, V., *et al.*
Isoprenoid acids in recent sediments, M. Blumer and W. J. Cooper, 1463
Isoprenoid and dicarboxylic acids isolated from Colorado Green River shale (Eocene), P. Haug *et al.*, 772
Israelstam, D. M. *See* Loughman, W. D., *et al.*
ITO, M. *See* ECCLES J. C., *et al.*
- J**
- Jacobson, B. S.: Burgeoning ABM costs (*letter*), 718
Jacquigmon, P. *See* Lacassagne, A., *et al.*
Jaffe, L. D., and R. H. Steinbacher: Surveyor V: introduction, 613. *See also* Christensen, E. M., *et al.*
Jamieson, J. C. *See* Navrotsky, A., *et al.*
Jammer, M.: *book review* of Niels Bohr, 899
Jandl, J. H. *See* LoBuglio, A. F., *et al.*
Janis, R., *et al.*: Synovial cell synthesis of a substance immunologically like cartilage proteopolysaccharide, 1464
Jared, D. W. *See* Haarstad, V. B., *et al.*
Jeffrey, J. J. *See* Evanson, J. M., *et al.*
Jensen, E. V., *et al.*: Sulphydryl groups and estradiol-receptor interaction, 385
JEWELL, P. A., and C. LOIZOS (Eds.), Play, exploration and territory in mammals, *book review* of, 1300
John, E. R. *See* Horel, J. A., *et al.*
Johnsen, R. H.: *book review* of Second Tihany symposium on radiation chemistry, 366
Johnson, B. L.: Tetraploid wheats: seed protein electrophoretic patterns of the Emmer and Timopheevi groups, 131
Johnson, D. L. *See* Frisch, K. V., *et al.*
Johnston, J. A., Jr. *See* Allen, R. D., *et al.*
Johnstone, B. M., and A. J. F. Boyle:
- Basilar membrane vibration examined with the Mössbauer technique, 389
Jones, B. F., *et al.*: Silica in alkaline brines, 1310
Jones, D. E. *See* Bridge, H. S., *et al.*
Jones, R. H. *See* Christensen, E. M., *et al.*
Joshi, P. C., and G. R. Noggle: Growth of isolated mesophyll cells of *Arachis hypogaea* in simple defined medium in vitro, 1575
JUDD, B. R.: Second quantization and atomic spectroscopy, *book review* of 107
Jungblut, P. W. *See* Jensen, E. V., *et al.*
- K**
- Kaarsalo, E., *et al.*: Autosomal linkage between the albumin and Gc loci in humans, 123
Kalan, E. B. *See* Patton, S., *et al.*
Kanatani, H. *See* Patton, S., *et al.*
Kandel, E. R. *See* Wachtel, H.
Kaplan, I. R. *See* Presley, B. J., *et al.*
KARABATOS, G. J. *See* HART, H.
Kare, M. R.: *book review* of Olfaction and taste II, 1664
Karp, E.: Continental drift and spreading of ocean floors, 947
Kastler, A.: Optical methods for studying Hertzian resonances, 214
Katz, A. M. *See* Rubin, B. B.
Kavanau J. L.: *book review* of Theoretical and experimental biophysics, 108
Kawakami, T. G., *et al.*: "C"-type viral particles in plasma of cats with feline leukemia, 1049
Kazmann, R. G. *See* Chernoff, P. R.
Kean, D. W. *See* Wynberg, H., *et al.*
Keele, S. W. *See* Posner, M. I.
Kelly, K. K. *See* Barth, C. A., *et al.*
Kelman, R. B. *See* Pollard, E. C., *et al.*
Kenshalo, D. R., and E. S. Gallegos: Multiple temperature-sensitive spots innervated by single nerve fibers, 1064
KHARASCH, N., and C. Y. MEYERS (Eds.), The chemistry of organic sulfur compounds, vol. 2, *book review* of, 250
Kim, S.-H., and A. Rich: Crystal structure of the 1:1 complex of 5-fluorouracil and 9-ethylhypoxanthine, 1046
King, L. J. *See* Glucksberg, S.
Kingma, F. J.: MS-222: vanished and banished? (*letter*), 438
Kirkby, A. V. T. *See* Flannery, K. V., *et al.*
Kirkby, M. J. *See* Flannery, K. V., *et al.*
Kitai, S. T. *See* Llinás, R., *et al.*
Kittleman, L. R. *See* Morris, R. W.
Kleppa, O. J. *See* Navrotsky, A., *et al.*
Klick, C. C.: *book review* of The optical properties of solids, 1038
Kliore, A., *et al.*: Atmosphere and ionosphere of Venus from the Mariner V S-band radio occultation measurement, 1683
Knight, B. W. *See* Ratliff, F., *et al.*
Knoerr, K. R. *See* Rawlins, S. L., *et al.*
Ko, H. Y. *See* Christensen, E. M., *et al.*
Kojima, Y. *See* Norman, J. C., *et al.*
Kordesch, K. V. *See* Evans, G. E.
Kováč, L., *et al.*: Biochemical genetics of oxidative phosphorylation, 1564
Kovach, R. L. *See* Breiner, S.
Krane, S. M. *See* Evanson, J. M., *et al.*
Krey, P. W.: Atmospheric burnup of a plutonium-238 generator, 769
Krimgis, S. M. *See* Van Allen, J. A., *et al.*
Krinsky, N. I. *See* Leff, J.
Krishnan, R. S., and J. C. Daniel, Jr.: "Blastokinin": inducer and regulator of blastocyst development in the rabbit uterus, 490
Kristoffersson, A. B.: Successiveness discrimination as a two-state, quantal process, 1337

INDEX TO VOLUME 158

- Kueh, Y. *See* Copp, D. H., *et al.*
 KUHLENBECK, H., The central nervous system of vertebrates, *book review* of, 1443
 Kuiper, G. P. *See* Gault, D. E., *et al.*
 Kumar, S. *See* Tessman, I., *et al.*
 Kunishi, A. T. *See* Lieberman, M.
 Kurita, Y. *See* Sugiyama, T., *et al.*
 Kuroda, P. K. *See* Reynolds, M. A., *et al.*
 Kwakiutl ethnography, F. BOAS, *book review* by R. P. Rohner, 363
 Kylstra, J. A., *et al.*: Hydraulic compression of mice to 166 atmospheres, 793

L

- Lacassagne, A., *et al.*: 5-oxo-5H-benzo [eliochromeno-[4,3-*b*] indole, a new type of highly sarcomagenic lactone, 387
 Lachowicz, T. M. *See* Kováč, L., *et al.*
 Lagler, K. F.: *book review* of Light as an ecological factor, 1037
 Laki, K.: *book review* of Blood clotting enzymology, 1171
 Lambda transition in liquid sulfur, G. E. Sauer and L. B. Borst, 1567
 Lambilliotte, J.-P. *See* Norman, J. C., *et al.*
 Lamont Geological Observatory (*AAAS*), J. L. Worzel, 948
 Landreth, H. F., and D. E. Ferguson: Newts: sun-compass orientation, 1459
 Landslide noise, J. D. Cadman and R. E. Goodman, 1182
 Lang, S.: A revolt against time and effort reports (*letter*), 1268
 Langway, C. C. *See* McCorkell, R., *et al.*
 Lardy, H. A. *See* Shrago, E., *et al.*
 Larousse encyclopedia of animal life, The, *book review* by P. Gray, 898
 Lasagna, L.: *book review* of Clinical judgment, 246
 Latin America: call for conservation (*letters*), P. G. Heltne and M. Buchinger, 717
 Laughlin, J. S.: Dosimetry: high-energy radiation therapy (*meeting report*), 1499
 Lawson, R. B., and Mount, D. C.: Minimum condition for stereopsis and anomalous contour, 804
 Lazarus, A. J. *See* Bridge, H. S., *et al.*
 Leake, C. D.: Drug information (*meeting report*), 161
 Lectures on quantum field theory, P. A. M. DIRAC, *book review* by J. Sucher, 623
 Lederberg, J.: Dangers of reprogramming cells (*letter*), 313
 Lee, A. K. *See* MacMillen, R. E.
 Lee, J. C., and V. M. Ingram: Erythrocyte transfer RNA: change during chick development, 1330
 Lee, S., and S. Aronoff: Boron in plants: a biochemical role, 798
 LeFevre, P. G.: Imine-bonding in membrane transport of monosaccharides: invalidity of kinetic evidence, 274
 Leff, J., and N. I. Krinsky: A mutagenic effect of visible light mediated by endogenous pigments in *Euglena gracilis*, 1332
 LENTZ, T. L., The cell biology of hydra, *book review* of, 1036
 Leon, M. A.: Concanavalin A reaction with human normal immunoglobulin G and myeloma immunoglobulin G, 1325
 Leopold, A. C. *See* Dostal, H. C.
 Lester, G. *See* Youtz, B. L., *et al.*
 Leukocytes of humans exposed to lysergic acid diethylamide: lack of chromosomal damage, W. D. Loughman *et al.*, 508
 Levine, S.: Allergic adenohypophysitis: new experimental disease of the pituitary gland, 1190

- Levitt, J. *See* Rawlins, S. L., *et al.*
 Levy, G. S. *See* Kliore, A., *et al.*
 Li, S.-T.: China: a reviving power (*letter*), 47
 Li, Y. H. *See* Broecker, W. S., *et al.*
 Libby, L. M. *See* Bender, P. J., *et al.*
 Libby, W. F. *See* Bender, P. J., *et al.*
 Libet, B., *et al.*: Responses of human somatosensory cortex to stimuli below threshold for conscious sensation, 1597
 Lieberman, M., and A. T. Kunishi: Propanal may be a precursor of ethylene in metabolism, 938
 Life at high temperatures, T. D. Brock, 1012
 Light as an ecological factor, R. BAINBRIDGE *et al.* (*Eds.*), *book review* by K. F. Lagler, 1037
 Lilleley, F. E. M.: Weightlessness in space (*letter*), 317
 Lim, B.-L. *See* Heyneman, D.
 Lim, R. *See* Agranoff, B. W., *et al.*
 Lindemann, B., and U. Thorns: Fast potential spike of frog skin generated at the outer surface of the epithelium, 1473
 Liquid-phase oxidation of hydrocarbons, N. M. EMANUEL *et al.*, *book review* by K. U. Ingold, 248
 Lithophagic snail from southern British Honduras, A. K. Craig, 795
 Little, E. L., Jr.: The genus *Pinus*, *book review* of, 626
 Llinás, R., *et al.*: Cerebellar Purkinje cell projection to the peripheral vestibular organ in the frog, 1328
 Lloyd, J. E., and T. J. Walker: Names are not enough (*letter*), 1525
 LoBuglio, A. F., *et al.*: Red cells coated with immunoglobulin G: binding and spherling by mononuclear cells in man, 1582
 Local geomagnetic events associated with displacements on the San Andreas fault, S. Breiner and R. L. Kovach, 116
 Localization of the adrenergic feeding system in the rat diencephalon, D. A. Booth, 515
 LOCKE, M. (*Ed.*), Major problems in development biology, *book review* of, 250
 Loeblich, A. R., III. *See* Patton, S., *et al.*
 LOIZOS, C. *See* JEWELL, P. A.
 Loman, D.: Essay on criticism (*letter*), 718
 Loomis, W. F. *See* Freeman, F. R.
 Losey, G. S., Jr. *See* Rosenblatt, R. H.
 Lost land emerging, W. B. EMERY, *book review* by W. A. Fairervis, Jr., 483
 Lougheed, R. W. *See* Hulet, E. K., *et al.*
 Loughman, W. D., *et al.*: Leukocytes of humans exposed to lysergic acid diethylamide: lack of chromosomal damage, 508
 Lowenfels, A. B., *et al.*: Sonic booms (*letters*), 313
 LOWES, F. J. *See* HINDMARSH, W. R., *et al.*
 LSD: effect on offspring, J. A. DiPaolo and G. J. Alexander, 522
 Luco, J. V. *See* Dews, P. B., *et al.*
 Lukes, R. M.: Should Johnson trust the intellectuals? (*letter*), 47
 Lunar geology, G. FIELDER, *book review* by W. K. Hartmann, 105
 Lunar orbiter photographs: some fundamental observations, N. J. Trask and L. C. Rowan, 1529
 Lupinus arcticus Wats. grown from seeds of Pleistocene age, A. E. Porsild *et al.*, 113
 Luria, S. E., and A. Szent-Györgyi: Vietnam: a national catastrophe (*letter*), 47
 LURIA, S. E., and DARNELL, J. E., General virology, *book review* of, 484
 Lvov, V., *et al.*: Sky-hook: old idea, 946
 Lymphocytic choriomeningitis: production of antibody by "tolerant" infected mice, M. B. A. Oldstone and F. J. Dixon, 1193

- Lynch, T. F.: Quichqui Puncu: a pre-ceramic site in highland Peru, 780
 Lyons, G. M. *See* David, H., *et al.*
 LYONS, L. E. *See* GUTMANN, F.

M

- MacMillen, R. E., and A. K. Lee: Australian desert mice: independence of exogenous water, 383
 Magnetism and the cosmos, W. R. HINDMARSH *et al.* (*Eds.*), *book review* by W. M. Elsasser, 764
 Magnetism in solids, D. H. MARTIN, *book review* by S. Engelsberg, 1168
 MAIZUS, Z. K. *See* EMANUEL, N. M., *et al.*
 Major problems in developmental biology, M. LOCKE (*Ed.*), *book review* by M. Abercrombie, 250
 Major steps in vertebrate evolution, A. S. ROMER, 1629
 Mammalian oviduct: international symposium (*meeting report*), E. S. E. Hafez, 1606
 Man and transportation (*AAAS*), P. Rosenberg, 1083
 Mandel, H. G.: Cancer dissemination (*meeting report*), 958
 Mandelkern, L.: *book review* of Polymer fractionation, 764
 Mandell, A. J.: Psychochemical research strategies in man, 1496
 Mangane, M. *See* Lacassagne, A., *et al.*
 Manganese and related elements in the interstitial water of marine sediments, B. J. Presley *et al.*, 906
 Mangos, J. A. and N. R. McSherry: Sodium transport: inhibitory factor in sweat of patients with cystic fibrosis, 135
 Manley, J. H.: Electron microscopy: enhancement of specimen contrast by injection of atoms, 1585
 Manly, R. S.: Adhesion in biological systems (*AAAS*), 812
 Manned submersibles for research, H. A. Arnold, 84
 Manning, A.: Antennae and sexual receptivity in *Drosophila melanogaster* females, 136
 Manville, R. H.: *book review* of Animals of the north, 764
 Many-body description of nuclear structure and reactions, C. BLOCH (*Ed.*), *book review* by G. E. Brown, 1440
 Maran, S. P.: Telescopes and automation, 867
 Marine science (*AAAS*), A. E. Maxwell, 950
 Mariner Stanford Group: Venus: Ionosphere and Atmosphere as Measured by dual-frequency radio occultation of Mariner V, 1678
 Mariner V flight past Venus, The, C. W. Snyder, 1665
 Mariner V: plasma and magnetic fields observed near Venus, H. S. Bridge *et al.*, 1669
 MARR, G. V., Photoionization processes in gases, *book review* of, 1663
 Marschner, R. F. *See* Lowenfels, A. B., *et al.*
 MARSHALL, N. B. (*Ed.*), Aspects of marine zoology, *book review* of, 1441
 Martian ionosphere: a component due to solar protons, C. Sagan and J. Veverka, 110
 Martin, A. R. *See* Nicholls, J. G., *et al.*
 MARTIN, D. H., Magnetism in solids, *book review* of, 1168
 Martin, P. S.: *book review* of The Bering land bridge, 1168
 MATELES, R. I., and G. N. WOGAN (*Eds.*), Biochemistry of some foodborne microbial toxins, *book review* of, 109
 Mathematical papers of Isaac Newton, The, vol. 1, D. T. WHITESIDE (*Ed.*), *book review* by C. Eisele, 245

- MATHER, K. F. (Ed.), Source book in geology, 1900-1950, *book review* of, 898
- MATHEWSON, R. F. See GILBERT, P. W., et al.
- Maxwell, A. E.: Marine science (*AAAS*), 950
- Maynard, D. M.: *book review* of Central nervous system of vertebrates, 1443
- Mazursky, H. See Gault, D. E., et al.
- McCamis, M. J. See Trumbull, J. V. A.
- McConkey, E. H.: Ribonucleoproteins (*meeting report*), 1498
- McCorkell, R., et al.: Aluminum-26 and beryllium-10 in Greenland ice, 1690
- MC CORMAC, B. M. (Ed.), Aurora and air-glow, *book review* of, 481
- McCormick, J. G. See Ridgeway, S. H.
- McCune, R. W. See Roberts, S., et al.
- McEvily, T. V.: *book review* of The earth beneath the continents, 763
- McGinnis, S. M. See DeWitt, C. B., et al.
- McGranahan, D. V.: Prominent noses (*letter*), 317
- McIntyre, A.: Coccoliths as paleoclimatic indicators of Pleistocene glaciation, 1314
- McKinney, R. W. See Hanson, R. P., et al.
- McLaren, A. D. See Skujins, J. J.
- McMahon, B. E. See Strangway, D. W., et al.
- McMannus, J. F. A.: Objections of Fountain report (*letter*), 1621
- McNew, G. L.: Boyce Thompson Institute for Plant Research, Inc. (*AAAS*), 1489
- McSherry, N. R. See Mangos, J. A.
- MEDAWAR, P. B.: The art of the soluble, *book review* of, 246
- Medwedeff, F. M., and J. W. Stanford: Are dental x-rays dangerous? (*letters*), 1397
- Meeting Reports*: Behavior sciences and family planning, 677; Brain research, 951; Cancer dissemination, 958; Cleft lip and cleft palate, 1603; Comparative medicine, 1220; Dosimetry: high-energy radiation therapy, 1499; Drug information, 161; Eutrophication, 278; Gamma globulins: structure and control of biosynthesis, 813; Geology along the North Atlantic: Gander conference, 1368; Gordon Research Conferences: winter program, 1968, 1086; Hepatomas, 542; Information and control processes in living systems, 1706; Mammalian oviduct, 1606; Membrane structure and function, 146; Pi complexes in biological systems, 1707; Ribonucleoproteins, 1498; Sensory coding, 399
- Meeting world food needs (*editorial*), P. H. Abelson, 865
- Mehler, J., and T. G. Bever: Cognitive capacity of very young children, 141
- Melartin, L. See Kaarsalo, E., et al.
- Melnick, J. L. See Rawls, W. E., et al.
- Membrane structure and function (*meeting report*), J. H. Quastel, 146
- Membranes of *Valonia ventricosa*: apparent absence of water-filled pores, J. Gutknecht, 787
- Menaker, M. See Gaston, S.
- Mendelevium: divalency and other chemical properties, E. K. Hulet et al., 486
- Metcalf, R. L. See Williamson, R. L.
- Methods for experimental social innovation, G. W. FAIRWEATHER, *book review* by R. G. Havelock, 1037
- Meyer, C. See Hemley, J. J., et al.
- Meyerhoff, H. A.: *book review* of Changing identity of graduate earth science education, 249
- MEYERS, C. Y. See KHARASCH, N.
- Mice: individual recognition by olfactory cues, J. M. Bowers and B. K. Alexander, 1208
- Michels, J. W.: Archeology and dating by hydration of obsidian, 211
- Middlebrook, W. R.: Chromatography warning (*letter*), 855
- Mihalov, J. D. See Colburn, D. S., et al.
- Millikan, M. F.: *book review* of Alternatives for balancing world food production and needs, 1560
- Minimum condition for stereopsis and anomalous contour, R. B. Lawson and D. C. Mount, 804
- Mink, W. D., et al.: Neurons in paradoxical sleep and motivated behavior, 1335
- Mintz, B., and W. K. Silvers: "Intrinsic" immunological tolerance in allophenic mice, 1484
- MIROV, N. T., The genus *Pinus*, *book review* of, 626
- Mitchell, R. S.: Tridymite pseudomorphs after wood in Virginian Lower Cretaceous sediments, 905
- Mixtec kings and their people, The, R. SPOROS, *book review* by C. R. Wicke, 623
- Molecular approaches to learning and memory (*AAAS*), W. L. Byrne, 1081
- Molecular properties and evolution of excitable cells, The, C. J. DUNCAN, *book review* by H. Grundfest, 1561
- Molohon, K. T. See Pettrakis, N. L., et al.
- Montana's crusading scientists (*letter*), C. C. Gordon, 1524
- Montrose, C. J.: *book review* of Ultrasonic absorption, 1441
- Moolten, F. L., and N. L. R. Bucher: Regeneration of rat liver: transfer of humoral agent by cross circulation, 272
- MOORE, R. E.: Interval analysis, *book review* of, 365
- Morris, E. C. See Shoemaker, E. M., et al.
- MORRIS, R. F. See CLARK, L. R., et al.
- Morris, R. W., and L. R. Kittleman: Piezoelectric property of otoliths, 368
- Mortimer, R. K. See Resnick, M. A., et al.
- Morton, D. C. See Underhill, A. B.
- Moscona, A. A., and R. Piddington: Enzyme induction by corticosteroids in embryonic cells: steroid structure and inductive effect, 496
- Mosier, D. E.: A requirement for two cell types for antibody formation in vitro, 1573
- Motivated forgetting mediated by implicit verbal chaining: a laboratory analog of repression, S. Glucksberg, and L. J. King, 517
- Mount, D. C. See Lawson, R. B.
- Moura, A.-M. See Blanquet, P., et al.
- Moynihan Report and the politics of controversy, The, L. RAINWATER and W. L. YANCEY, *book review* by K. H. Gergen, 896
- MS-222: vanished and banished? (*letter*), F. J. Kingma, 438
- Mulholland, J. D.: Ohio's brain drain (*letter*), 717
- Mulligan, G. A. See Porsild, A. E.
- Mulrow, P. J. See Palmore, W. P.
- Multiple temperature-sensitive spots innervated by single nerve fibers, D. R. Kenshalo and E. S. Gallegos, 1064
- MULTHAUER, R. P., The origins of chemistry, *book review* of, 364
- MUMFORD, L., The myth of the machine, *book review* of, 105
- Munk, W. H., and B. D. Zetler: Deep-sea tides: a program, 884
- Munn, R. J. See Kawakami, T. G., et al.
- Murine lymphoma: augmented growth in mice in pertussis vaccine-induced lymphocytosis, M. Hirano et al., 1061
- Murray, J. R. See Brown, J. E., et al.
- Mussell, D. R. See Tolkmith, H., et al.
- Mutagenic effect of visible light mediated by endogenous pigments in *Euglena gracilis*, A. J. Leff and N. I. Krinsky, 1332
- Mutarotase in erythrocytes: isolation and properties, W. Sacks, 498
- MUTO, T. (Ed.), The physics of semiconductors, *book review* of, 1559
- Myxovirus-like structures in a case of human chronic polymyositis, S.-M. Chou, 1453
- Myth of the machine, The, L. MUMFORD, *book review* by J. H. Steward, 105
- N
- Names are not enough (*letter*), J. E. Lloyd and T. J. Walker, 1524
- Nantz, R. See Kylstra, J. A., et al.
- NATH, V., Animal gametes (male), *book review* of, 104
- National Academy of Sciences: abstracts of papers, 523
- Navrotsky, A., et al.: Enthalpy of transformation of a high-pressure polymorph of titanium dioxide to the rutile modification, 388
- Negro students at Michigan (*letters*), P. R. Chernoff and R. G. Kazmann, 205
- Nelson, B. (*News and Comment*): Air pollution, 355; alcoholism, 475; LBJ meets professors on Vietnam, 231; Negro graduates, 99; thermal pollution, 755
- Nelson, B. W.: Sedimentary phosphate method of estimating paleosalinities, 917
- Nervous and hormonal mechanisms of integration, G. M. HUGHES (Ed.), *book review* by E. Florey, 624
- Neurath, H., et al.: Evolution of structure and function of proteases, 1638
- Neurons in paradoxical sleep and motivated behavior, W. D. Mink, et al., 1335
- Neurosecretory cells in a cestode, *Hymenolepis diminuta*, K. G. Davey and W. R. Breckenridge, 931
- New high-temperature *Chlorella*, C. Sorokin, 1204
- New source for MS-222 (*letters*), V. B. Haarstad, 1524
- New words (*editorial*), D. Wolfe, 1627
- New York Aquarium and Osborn Laboratories of Marine Science (*AAAS*), G. D. Ruggieri, 675
- New York Botanical Garden—research and education (*AAAS*), W. C. Steere, 539
- News and Comment*: academic freedom, 477; academic research, 1032; alcoholism, 475; Aldabra, 1164; British science policy, 1030; dams and wild rivers, 233; Dow Chemical Company, 1031, 1289; draft, 757, 1434, 1435; education reform, 1162; Environmental Defense Fund, 1552; Euratom, 95, 1657; expanded role urged for Defense Department, 886; fallout shelter survey, 894; FCC ruling on cigarette ads, 888; federal economizing, 473; federal research funds, 1286; foot-and-mouth disease, 1435; Fountain Committee and NIH, 611; Frankel resigns from State, 1436; fund raising at Yale, 1658; higher education, 620; housing, 1432; LBJ meets professors on Vietnam, 231; money for NSF, 357; money for research, 230; Mt. Sinai Hospital, 614; NAS establishes a Board on Medicine, 891; Negro graduates, 99; new towns, 752; NIH and Shannon's retirement, 1165; Nobel prizes, 468, 745; NSF issues administrative study, 890; NSF issues new education survey, 96; planetary exploration, 1025; racial studies, 892; research in Japan, 748; reshaping American medicine, 1160; Russian declines Atoms for Peace Award, 360; Smale and NSF, 98, 618; Soviet space program, 1027; space science in Europe, 242; synthesis of DNA, 1548; systems analysis, 1028; thermal pollution, 755; un-American activities, 1294; U.S.-Soviet exchange agreement nears expiration, 751; "Utopia" and AMA Research Institute, 1653; Wald urges Cambridge Vietnam referendum, 617; water and air pollution, 351; Waterman dies at 75, 1293
- Newton, R. G.: *book review* of Introduction to the quantum theory of scattering, 762; NEWTON, R. G., Scattering theory of waves and particles, *book review* of, 1170
- News: sun-compass orientation, H. F. Landreth and D. E. Ferguson, 1459

INDEX TO VOLUME 158

- Nicholls, J. G., *et al.*: persistence transfer (*letter*), 1524
 Nicholson, H. P.: Pesticide pollution control, 871
 Niden, A. H.: Bronchiolar and large alveolar cell in pulmonary phospholipid metabolism, 1323
 Niels Bohr, S. ROZENTAL (Ed.), *book review* by M. Jammer, 899
 Nierlich, D. P.: Radioisotope uptake as a measure of synthesis of messenger RNA, 1186
 Nishizuka, Y. *See* Sugiyama, T., *et al.*
 Nitrogen-fixing plants, W. D. P. Stewart, 1426
 Noerdlinger, P. D. *See* Randolph, J.
 Noggle, G. R. *See* Joshi, P. C.
 Norman, J. C., *et al.*: Antihemophilic factor release by perfused liver and spleen: relationship to hemophilia, 1060
 Nuclear astrophysics, W. A. FOWLER, *book review* by I. Iben, Jr., 249
 Nucleotide sequence of KB cell 5S RNA, B. G. Forget and S. M. Weissman, 1695
 Nugent, N. A., and R. C. Fuller: Carotenoid biosynthesis in *Rhodospirillum rubrum*: effect of pteridine inhibitor, 922
 Nunnemacher, R. F., and V. A. Zullo: Woods Hole: now and then (*letters*), 852

O

- Objections to Fountain report (*letter*), J. F. A. McManus, 1621
 Oceanic basalt leads: a new interpretation and an independent age for the earth, T. J. Ulrych, 252
 Odencrantz, F. K., and R. W. Buecher: Temperature-dependence of the polarity of electrical charges on ice crystals, 256
 Odhiambo, T. R.: East Africa: science for development, 876
 Oduruh, M. *See* Nicholls, J. G., *et al.*
 Oettinger, A. G.: Commas awry (*letter*), 1525
 Ohio's brain drain (*letter*), J. D. Mulholland, 717
 Oil shale: conservation or development (*letter*), G. E. Backus, 47
 O'Keefe, J. A. *See* Gault, D. E., *et al.*
 O'Keefe, J. A., and R. F. Scott: Chondritic meteorites and the lunar surface, 1174
 Olds, J. *See* Mink, W. D., *et al.*
 Oldstone, M. B. A., and F. J. Dixon: Lymphocytic choriomeningitis: production of antibody by "tolerant" infected mice, 1193
 Olfaction and taste II, T. HAYASHI (Ed.), *book review* by M. R. Kare, 1664
 Olfactory input to the hypothalamus: electrophysiological evidence, J. W. Scott and C. Pfaffmann, 1592
 Oliver, E. D.: Openings for Negro engineers (*letter*), 1137
 Olson, G. B. *See* Rawls, W. E., *et al.*
 OLSON, T. A., and F. J. BURGESS (Eds.): Pollution and marine ecology, *book review* of, 1300
 On limiting offensive weapons (*letter*), A. M. Weinberg, 1622
 Opdyke, N. D. *See* Hays, J. D.
 Openings for Negro engineers (*letter*), E. D. Oliver, 1137
 Optical differentiation of amoebic ectoplasm and endoplasmic flow, R. D. Allen *et al.*, 142
 Optical environment about the OGO-III satellite, C. Wolff, 1045
 Optical methods for studying Hertzian resonances, A. Kastler, 214
 Optical properties of solids, The, J. TAUC (Ed.), *book review* by C. C. Klick, 1038
 Optical rotatory dispersion and circular dichroism in organic chemistry, G. SNATZKE (Ed.), *book review* by G. Holzwarth, 1664

- Organic photochemistry, O. L. CHAPMAN (Ed.), *book review* by N. C. Yang, 1039
 Organic semiconductors, G. GUTMANN and L. E. LYONS, *book review* by J. F. Hornig, 1663
 Organization of inquiry, The, G. TULLOCK, *book review* by G. Gordon, 482
 Origins of chemistry, The, R. P. MULTHAUF, *book review* by A. Thackray, 364
 Osburn, B. I. *See* Smith, J. E.
 Osheroft, T. *See* Hobbs, P. V.
 Osmotic mechanism and negative pressure, S. L. Rawlins *et al.*, 1210
 Oster, J. D. *See* Rawlins, S. L., *et al.*
 Osterburg, J. W., and J. F. Coates: Crime, science, and technology (AAAS), 1079
 Other natural bromo compounds, J. S. Webb, 522
 Overberger, C. G.: *book review* of Polymerization by organometallic compounds, 109
 5-oxo-H-benz[e]isochromeno[4,3-*b*] indole, a new type of highly sarcomagenic lactone, A. Lacassagne *et al.*, 387
- P
- Page, T.: Student skeptics study UFO's (*letter*), 1397
 Paleomagnetic field reversals and cosmic radiation, C. J. Waddington, 913
 Palmore, W. P., and P. J. Mulrow: Control of aldosterone secretion by the pituitary gland, 1482
 Parks, W. G.: Gordon Research Conferences: winter program, 1968 (*meeting report*), 1086
 Parrillo, G. M. (*News and Comment*): Russian declines Atoms for Peace Award, 360; Waterman, first NSF head, dies at 75, 1293
 Parthasarathy, R.: Flux density of Cassiopeia-A at 3.0 megacycles per second, 1449
 Pasik, P. *See* Schilder, P., *et al.*
 Pasik, T. *See* Schilder, P., *et al.*
 Patterson, J. H. *See* Turkevich, A. L., *et al.*
 Patton, S., *et al.*: Food value of red tide (*Gonyaulax polyedra*), 789
 Paul, W.: *book review* of The physics of semiconductors, 1559
 Peacock, A. C., *et al.*: Haptoglobin levels in serum of various strains of mice, 1703
 Pearce, J. B. *See* Barth, C. A., *et al.*
 Pease, G. E. *See* Anderson, I. D., *et al.*
 Pediplain in northern Chile and the Andean uplift, C. Galli-Olivier, 653
 Pemoline levels in brain: enhancement by dimethyl sulfoxide, J. J. Brink and D. G. Stein, 1479
 PENFIELD, W.: The difficult art of giving: the epic of Alan Gregg, *book review* of, 1169
 Penney, R.: Behavioral research—New York Zoological Park (AAAS), 144
 Perey, D. Y. E., *et al.*: Polycystic renal disease: a new experimental model, 494
 Persistence transfer (*letter*), J. G. Nicholls *et al.*, 1524
 Pesticide pollution control, H. P. Nicholson, 871
 Petrakis, N. L., *et al.*: Cerumen in American Indians: genetic implication of sticky and dry types, 1192
 PETRIE, A.: Individuality in pain and suffering, *book review* of, 1558
 Peugnet, A. A.: Flyspeck on Glacier Peak (*letter*), 205
 Pfaffman, C. *See* Scott, J. W.
 Pfeiffer, E. W.: Hazards of iodine-131 fallout in Utah (AAAS), 397
 Phage lambda mutants deficient in *r_n* exclusion, B. D. Howard, 1588
 Philanthropic foundations and grants to universities (*letter*), W. Weaver, 1133
 Phillips, P. G. *See* Gutnick, D. L., *et al.*
 Phinney, R. A. *See* Gault, D. E., *et al.*
 Photoelectric potential from photoreceptor cells in ventral eye of *Limulus*, J. E. Brown *et al.*, 665
 Photoionization processes in gases, G. V. MARR, *book review* by S. C. Brown, 1663
 Photoperiodic control of hamster testis, S. Gaston and M. Menaker, 925
 Photoreactivation in vivo of pyrimidine dimers in *Paramecium* DNA, B. M. Sutherland *et al.*, 1699
 Photosynthetic utilization of internal carbon dioxide by hollow-stemmed plants, W. D. Billings and P. J. Godfrey, 121
 Physics of semiconductors, The, T. MUTO (Ed.), *book review* by W. Paul, 1559
 Pi complexes in biological systems (*meeting report*), J. Harris *et al.*, 1706
 Piddington, R. *See* Moscona, A. A.
 Pierce, J. R. *See* Brown, W. S., *et al.*
 Pierce, W. S. *See* Boretos, J. W.
 Piezoelectric property of otoliths, R. W. Morris and L. R. Kittleman, 368
 Planetary magnetic fields and rotation, R. T. Brown and J. A. Van Allen, 674
 Plant-water relationships, R. O. SLATYER, *book review* by J. S. Boyer, 1171
 Plants and man on the Seychelles coast, J. D. SAUER, *book review* by H. C. Baker, 247
 Play, exploration and territory in mammals, P. A. JEWELL and C. LOIZOS (Eds.), *book review* by C. R. Carpenter, 1300
 POGLAZOV, B. F.: Structure and functions of contractile proteins, *book review* of, 1172
 Polatnick, J. *See* Arlinghaus, R. A.
 Pollack, G. L.: *book review* of Experimental superfluidity, 1442
 Pollard, E. C., *et al.*: Scientists' views on Vietnam (*letters*), 438
 Pollution and marine ecology, T. A. OLSON and F. J. BURGESS (Eds.), *book review* by J. W. Hedgpath, 1300
 Pollution by consent (*letter*), F. D. Sawby, 1625
 POLOVIN, R. V. *See* AKHIEZER, A. I., *et al.*
 Polycystic renal disease: a new experimental model, D. Y. E. Perey *et al.*, 494
 Polymer fractionation, M. J. R. CANTOW (Ed.), *book review* by L. Mandelkern, 764
 Polymerization by organometallic compounds, L. REICH and A. SCHINDLER, *book review* by C. G. Overberger, 109
 Polymerization of hemoglobins of mouse and man: structural basis, J. Bonaventura and A. Riggs, 800
 Polyribosomes of growing bacteria, C. P. Flessel *et al.*, 658
 Pomeroy, L. R.: Sewage: a rose by another name (*letter*), 579
 Population policy: will current programs succeed?, K. Davis, 730
 Porsild, A. E., *et al.*: *Lupinus arcticus* Wats. grown from seeds of Pleistocene age, 113
 Porter, C. C.: *book review* of A catalogue and reclassification of the Neotropical Ichneumonidae, 107
 Porter, J. R.: *book reviews* of Biochemistry of some foodborne microbial toxins, 109; Transmission of viruses by water route, 367
 Posner, M. I., and S. W. Keele: Decay of visual information from a single letter, 137
 Potamotrygon spp.: elasmobranchs with low urea content, T. B. Thorson *et al.*, 375
 Potato spindle tuber virus: a plant virus with properties of a free nucleic acid, T. O. Diener and W. B. Raymer, 378
 Potter, R. J.: *book review* of Reticles in electro-optical devices, 762
 Potts, A., and M. E. Bitterman: Puromycin and retention in the goldfish, 1594
 Powell, B. J. *See* Cohen, B. J.

- Powers, W. T. *See Rosa, R. J., et al.*
 Precht, W. *See Llinás, R., et al.*
 Precision measurement of the acceleration of gravity, J. E. Faller, 60
 Presley, B. J., *et al.*: Manganese and related elements in the interstitial water of marine sediments, 906
 Pribram, K. H. *See Horel, J. A., et al.*
 PRIDHAM, J. B. (Ed.), Terpenoids in plants, *book review of*, 1558
 Primitive microfossils or not?, M. N. Bramlette, 673
 Privacy (*editorial*), P. H. Abelson, 323
 Procedures in nucleic acid research, G. L. CANTONI and D. R. DAVIES (Eds.), *book review by* E. Reich, 900
 Process values of university research, The, J. D. Carroll, 1019
 Prockop, D. J. *See Bhatnagar, R. S., et al.*
 Progress in physiological psychology, E. STELLAR and J. M. SPRAGUE, *book review by* M. R. Rosenzweig, 1173
 Prokasy, W. F. *See Pollard, E. C., et al.*
 Prominent noses (*letter*), D. V. McGranahan, 317
 Promise of the International Atomic Energy Agency, The, G. T. Seaborg, 226
 Propanal may be a precursor of ethylene in metabolism, M. Lieberman and A. T. Kunishi, 938
 Protein-synthesizing activity of the anucleate polar lobe of the mud snail *Ilyanassa obsoleta*, A. C. Clement and A. Tyler, 1457
 PRUITT, W. O., JR., Animals of the north, *book review of*, 764
 Psychoanalytic studies in child development (AAAS), A. J. Solnit, 811
 Psychochemical research strategies in man (AAAS), A. J. Mandell, 1496
 Puromycin and retention in the goldfish, A. Potts and M. E. Bitterman, 1594
 Putnam, F. W.: Gamma globulins: structure and control of biosynthesis (*meeting report*), 813
- Q-R**
- Quastel, J. H.: Membrane structure and function (*meeting report*), 146.
 Queuing theory: recent developments and applications, R. CRUON (Ed.), *book review by* J. Riordan, 1298
 Quishqui Puncu: a preceramic site in highland Peru, T. F. Lynch, 780
 Rabbit hemoglobin biosynthesis: use of human hemoglobin chains to study molecule completion, J. R. Shaffer *et al.*, 488
 Race and racism, P. L. VAN DEN BERGHE, *book review by* J. M. Yinger, 1557
 RACKHAM, O. *See BAINBRIDGE, R., et al.*
 Radar astronomy, V. R. Eshleman, 585
 Radiative-capture studies of the giant dipole resonance, R. E. Segel, 723
 Radio astronomy: a large antenna array, D. S. Heesch, 75
 Radio reflection by free radicals in Earth's atmosphere, P. L. Bender *et al.*, 1487
 Radio sources in the vicinity of source M 31, C. M. Varsavsky, 1043
 Radiocarbon content of marine shells from the Pacific coasts of Central and South America, R. E. Taylor and R. Berger, 1180
 Radioisotope uptake as a measure of synthesis of messenger RNA, D. P. Nierlich, 1186
 Radium-226 and radon-222: concentration in Atlantic and Pacific oceans, W. S. Broecker *et al.*, 1307
 Radovich, J., and D. W. Talmage: Antigenic competition: cellular or humoral, 512
 Ragland, R. H. *See Peacock, A. C., et al.*
 RAINWATER, L., and W. L. YANCEY, The Moynihan Report and the politics of controversy, *book review of*, 896
- RALL, D. P. *See GILBERT, P. W., et al.*
 Ralph P. *See Flessel, C. P., et al.*
 RAMBERG, H.: Gravity, deformation and the earth's crust, as studied by centrifuged models, *book review of*, 1561
 Ramsey, D. M.: Information and control processes in living systems (*meeting report*), 1706
 Randolph, J., and P. D. Noerdlinger: "Spin-offs" of federal research (*letters*), 438
 Rapp, H. J. *See Colten, H. R., et al.*
 Rasool, S. I. *See Kliore, A., et al.*
 Ratliff, F. (*News and Comment*): Nobel prize awarded to Ragnar Granit and Haldan Keffer Hartline, 468
 Ratliff, F., *et al.*: Enhancement of flicker by lateral inhibition, 392
 Rawlins, S. L., *et al.*: Osmotic mechanism and negative pressure, 1210
 Rawls, W. E., *et al.*: Effect of amantadine hydrochloride on the response of human lymphocytes to phytohemagglutinin, 506
 Rawson, R. O., *et al.*: Visceral tissue vascularization: an adaptive response to high temperature, 1203
 Ray, D. J., Eskimo masks, *book review of*, 1660
 Raymer, W. B. *See Diener, T. O.*
 Reactions from Reed (*letters*), B. L. Youtz *et al.*, 1398
 Reagentless substrate analysis with immobilized enzymes, S. J. Updike and G. P. Hicks, 270
 Recorded hearsay (*letter*), N. Fuson, 996
 Red cells coated with immunoglobulin G: binding and spherling by mononuclear cells in man, A. F. LoBuglio *et al.*, 1582
 Reductionism and real biology (*letters*), W. A. van Bergeijk *et al.*, 857
 Regeneration of rat liver: transfer of humoral agent by cross circulation, F. L. Moolten and N. L. R. Bucher, 272
 Regge, T.: *book review of* Scattering theory of waves and particles, 1170
 Reich, E.: *book review of* Procedures in nucleic acid research, 900
 REICH, L., and A. SCHINDLER, Polymerization by organometallic compounds, *book review of*, 109
 Reiner, J. M. *See Buckser, S., et al.*
 Reinhold, L.: Induction of coiling in tentacles by auxin and carbon dioxide, 791
 "Reminiscence" in the cold flour beetle (*Tenebrio molitor*), T. M. Alloway and A. Routtenberg, 1066
 Renin-like enzyme in the adrenal gland, J. W. Ryan, 1589
 Rennilson, J. J. *See Shoemaker, E. M., et al.*
 Repair of damaged DNA in a eucaryotic cell: *Tetrahymena pyriformis*, C. F. Brunk and P. C. Hanawalt, 663
 Requirement for two cell types for antibody formation in vitro, A. D. E. Mosier, 1573
 Research comparisons, C. Freeman, 463
 Research in protozoology, T. T. CHEN (Ed.), *book review by* R. E. Thorson, 484
 Resnick, M. A., *et al.*: Separation of spores from diploid cells of yeast by stable-flow free-boundary electrophoresis, 803
 Respiratory exposure to lead: epidemiological and experimental dose-response relationships, J. R. Goldsmith and A. C. Hexter, 132
 Responses of human somatosensory cortex to stimuli below threshold for conscious sensation, B. Libet, 1597
 Reticles in electro-optical devices, L. M. BIBERMAN, *book review by* R. J. Potter, 762
 Rettig, S. L. *See Jones, B. F., et al.*
 Reversal learning and forgetting in bird and fish, R. C. Gonzalez *et al.*, 519
 Revolt against time and effort reports, A (*letter*), S. Lang, 1268
 Reynolds, M. A., *et al.*: Fallout from the Chinese nuclear explosion of 17 June 1967, 1692
 Reynolds, N. B.: Common English, please! (*letter*), 995
 Ribonucleic acid: control of steroid synthesis in endocrine tissue, D. B. Villee, 652
 Ribonucleoproteins (*meeting report*), E. H. McConkey, 1498
 Rich, A. *See Flessel, C. P., et al.* *See also Kim, S.-H.*
 Richards, P. I., and L. Van Valen: Writers: fancies and foibles (*letters*), 319
 Riddiford, L. M.: Trans-2-hexenal: mating stimulant for polyphemus moths, 139
 Ridge, R. A. *See Nicholls, J. G., et al.*
 Ridgeway, S. H., and J. G. McCormick: Anesthetization of porpoises for major surgery, 510
 Riggs, A. *See Bonaventura, J.*
 Right to breathe pure air, The (*letter*), G. Turbeville, 315
 Riordan, J.: *book review of* Queuing theory: recent developments and applications, 1298
 Rioting patterns (*letter*), J. Boeke, 577
 Ripley, S. D.: Saving Aldabra (*letter*), 205
 Ro, I. H. *See Blackwell, R. Q., et al.*
 ROBERTS, P. H. *See HINDMARSH, W. R., et al.*
 Roberts, S., *et al.*: Adenosine 3',5'-cyclic phosphate: stimulation of steroidogenesis in sonically disrupted adrenal mitochondria, 372
 Robbins, P. W., *et al.*: Direction of chain growth in polysaccharide synthesis, 1536
 Robbins, W. E. *See Carlson, S. D., et al.*
 Robinson, D. N. *See Thor, D. H.*
 RODBERG, L. S. and R. M. THALER, Introduction to the quantum theory of scattering, *book review of*, 762
 Roesel, M. E. *See Haarstad, V. B., et al.*
 Rohner, R. P.: *book review of* Kwakiutl ethnography, 362
 Romer, A. S.: Major steps in vertebrate evolution, 1629
 Rosa, R. J., *et. al.*: UFO consensus (*letters*), 1265
 Rose, C. M. *See Wurtman, R. J., et al.*
 Rosenberg, P.: Man and transportation (AAAS), 1083
 Rosenblatt, R. H., and G. S. Losey, Jr.: Alarm reaction of the top smelt, *Atherinops affinis*: reexamination, 671
 Rosenbloom, J. *See Bhatnagar, R. S., et al.*
 Rosenthal, J. *See Nicholls, J. G., et al.*
 Rosenzweig, M. R.: *book review of* Frontiers in physiological psychology and *Progress in physiological psychology*, 1173
 Rotation of Venus: continuing contradictions, B. A. Smith, 114
 Routtenberg, A. *See Alloway, T. M.*
 Rowan, L. C.: *See Trask, N. J.*
 ROZENTAL, S. (Ed.), Niels Bohr, *book review of*, 899
 Rubber tubing disadvantages (*letter*), J. C. Buzzell, Jr., 1624
 Rubin, B. B., and A. M. Katz: Sodium and potassium effects on skeletal muscle microsomal adenosine triphosphatase and calcium uptake, 1189
 Rubin, M. *See Emery, K. O., et al.*
 Ruch, T. C.: *book review of* Charles Scott Sherrington, 1035
 Ruchkin, D. S. *See Horel, J. A., et al.*
 Rudnick, D.: *book review of* The dictionary of the biological sciences, 1442
 Ruggieri, G. D.: New York Aquarium and Osborn Laboratories of Marine Science (AAAS), 675
 RUNCORN, S. K. *See HINDMARSH, W. R., et al.*
 Runkle, R. S. *See Baldwin, C. L.*
 RUSSELL, R. W. (Ed.), Frontiers in physiological psychology, *book review of*, 1173
 Russian genetics: emerging from Lysenko (*letter*), Th. Dobzhansky, 577
 Ryan, J. W.: Renin-like enzyme in the adrenal gland, 1589

S

Sacks, W.: Mutarotase in erythrocytes: isolation and properties, 498
 Sadeh, D.: Galaxies as gravitational lenses, 1176
 Sagan, C., and J. Veverka: Martian ionosphere: a component due to solar protons, 110
 Sakamoto, H. *See* Gutnick, D. L., *et al.*
 Salicylanilides: a new group of active uncouplers of oxidative phosphorylation: R. L. Williamson and R. L. Metcalf, 1694
 Salton, M. R. J.: *book review* of Biosynthesis of antibiotics, 1299
 Saltzman, H. A. *See* Kylstra, A. J., *et al.*
 Samuelson, R. J. (*News and Comment*): Dow Chemical Company, 1031, 1289; The draft and graduate schools, 757; Mt. Sinai Hospital, 614; Wald urges Cambridge Vietnam referendum, 617
 Sandson, J. *See* Janis, R., *et al.*
 Sargent, T. W. *See* Loughman, W. D., *et al.*
 Sarich, V. M., and A. C. Wilson: Immunological time scale for hominid evolution, 1200
 Sarty, M. E.: When monkeys are rats (*letter*), 205
 Sarycheva, O. F. *See* Altstein, A. D., *et al.*
 Sauer, G. E., and L. B. Borst: Lambda transition in liquid sulfur, 1567
 SAUER, J. D.: Plants and man on the Seychelles coast, *book review* of, 247
 Saving Aldabra (*letter*), S. D. Ripley, 205
 Sawby, F. D.: Pollution by consent (*letter*), 1625
 Sayler, A., and A. Wolfson: Avian pineal gland: progonadotropic response in the Japanese quail, 1478
 Scanning electron microscope: potentials in the morphology of microorganisms, G. A. Bartlett, 1318
 Scattering theory of waves and particles, R. G. NEWTON, *book review* by T. Regg, 1170
 Schaffner, K. F. *See* Van Bergeijk, W. A., *et al.*
 Schiff, W.: Symbols and symbolic codes (*letter*), 1398
 Schilder, P., *et al.*: Total luminous flux: a possible response determinant for the normal monkey, 806
 SCHINDLER, A. *See* REICH, L.
 Schmidt, F. N. *See* Christensen, E. M., *et al.*
 Schneider, H. A.: Ecological ectocrines in experimental epidemiology, 597
 Schnoes, H. K. *See* Haug, P., *et al.*
 Schofield, R. E.: *book review* of The society of Arcueil, 1660
 Scholander, P. F. *See* Rawlins, S. L., *et al.*
 Science of movement, The, R. A. R. TRICKER and B. J. K. TRICKER, *book review* by S. Vogel, 366
 Scientists' views on Vietnam (*letters*), E. C. Pollard *et al.*, 438
 SCOTT, J. F. (Ed.): The correspondence of Isaac Newton, vol. 4, *book review* of, 1298
 Scott, J. W., and C. Pfaffman: Olfactory input to the hypothalamus: electrophysiological evidence, 1592
 Scott, R. F. *See* Christensen, E. M., *et al.* *See also* O'Keefe, J. A.
 Scotti, T. M. *See* Bergs, V. V.
 Seaborg, G. T.: The promise of the International Atomic Energy Agency, 226
 Sea-floor spreading near the Galapagos, E. M. Herron and J. R. Heitzler, 775
 Second quantization and atomic spectroscopy, B. R. Judd, *book review* by C. W. Ufford, 107
 Second Tihany symposium on radiation

INDEX TO VOLUME 158

chemistry, J. DOBÓ and P. HEDVIG (Eds.), *book review* by R. H. Johnsen, 366
 Sedimentary phosphate method of estimating paleosalinities, B. W. Nelson, 917
 SEEGER, W. H. (Ed.): Blood clotting enzymology, *book review* of, 1171
 Segel, R. E.: Radiative-capture studies of the giant dipole resonance, 723
 Segmented polyurethane: a new elastomer for biomedical applications, J. W. Boretos and W. S. Pierce, 1481
 Seiber, J. N. *See* Tolkmith, H., *et al.*
 Seismic delay times: correlation with other data, M. N. Toksöz and J. Arkani-Hamed, 783
 Seismic refraction profile in Coral Sea Basin, G. G. Shor, Jr., 911
 Selective Service solution (*editorial*), D. Wolfe, 1271
 Sensory coding (*meeting report*), G. G. Somjen, 399
 Sensory inhibition, G. VON BÉKÉSY, *book review* by J. Beck, 1296
 Separation of spores from diploid cells of yeast by stable-flow free-boundary electrophoresis, M. A. Resnick, *et al.*, 803
 Setlow, R. B. *See* Sutherland, B. M., *et al.*
 Sewage: a rose by another name (*letter*), L. R. Pomeroy, 579
 Shaeffer, J. R., *et al.*: Rabbit hemoglobin biosynthesis: use of human hemoglobin chains to study molecule completion, 488
 Sharks, skates, and rays, P. W. GILBERT *et al.* (Eds.), *book review* by J. W. Altz, 1038
 Shoemaker, E. M. *See* Gault, D. E., *et al.*
 Shoemaker, E. M., *et al.*: Surveyor V: television pictures, 642
 Shor, G. G., Jr.: Seismic refraction profile in Coral Sea Basin, 911
 Should Johnson trust the intellectuals? (*letter*), R. M. Lukes, 47
 Shrago, E., *et al.*: Carbohydrate supply as a regulator of rat liver phosphoenolpyruvate carboxykinase activity, 1572
 Shullenberger, C. C. *See* Hirano, M., *et al.*
 Shurcliff, W. A. *See* Lowenfels, A. B., *et al.*
 Sierra Nevada batholith, P. C. Bateman and J. P. Eaton, 1407
 Silica in alkaline brines, B. F. Jones *et al.*, 1310
 Silvers, W. K. *See* Mintz, B.
 Silvers, W. K., and R. E. Billingham: Genetic background and expressivity of histocompatibility genes, 118
 Simpson, G. G.: *book review* of The art of the soluble, 246
 Singer, M. F. (*News and Comment*): In vitro synthesis of DNA, 1550
 Sinkovics, J. G. *See* Hirano, M., *et al.*
 Sise, H. S. *See* Norman, J. C., *et al.*
 SITENKO, A. G. *See* AKHIEZER, A. I., *et al.*
 Skujins, J. J., and A. D. McLaren: Enzyme reaction rates at limited water activities, 1569
 Sky-hook: old idea, V. Lvov *et al.*, 946
 Slatyer, R. O.: Plant-water relationships, *book review* of, 1171
 Slonimski, P. L. *See* Kováč, L., *et al.*
 Slow virus kidney disease of mice, F. D. Baker and J. Hotchin, 502
 Small, P. A., Jr. *See* Asofsky, R.
 Smith, B. A.: Rotation of Venus: continuing contradictions, 114
 Smith, C. *See* Janis, R., *et al.*
 Smith, E. J. *See* Bridge, H. S., *et al.*
 Smith, J. E., and B. I. Osburn: Glutathione deficiency in sheep erythrocytes, 374
 Smith, T. G. *See* Brown, J. E., *et al.*
 SMITH, T. J. *See* STEINHART, J. S.
 Smoke-filled friendships (*letter*), M. Hildebrand, 1266
 SNATZKE, G. (Ed.): Optical rotatory dispersion and circular dichroism in organic chemistry, *book review* of, 1664
 SNELL, J. F. (Ed.): Biosynthesis of antibiotics, *book review* of, 1299
 Snyder, C. W. *See* Bridge, H. S., *et al.*
 Snyder, C. W.: The Mariner V flight past Venus, 1665
 Snyder, M.: Behavior sciences and family planning (*meeting report*), 677
 Snyder, R. L.: *book review* of Traité de zoologie: anatomie, systématique, biologie, vol. 16, 625
 Snyder, S. H., *et al.*: 2,5-Dimethoxy-4-methylamphetamine (STP): a new hallucinogenic drug, 669
 Social communication among primates, S. A. ALTMANN (Ed.), *book review* by S. L. Washburn, 481
 Social sciences report to DOD (*letters*), H. David *et al.*, 1624
 Society of Arcueil, The, I. M. CROSLAND, *book review* by R. E. Schofield, 1660
 Sodium and potassium effects on skeletal muscle microsomal adenosine triphosphatase and calcium uptake, B. B. Rubin and A. M. Katz, 1189
 Sodium transport: inhibitory factor in sweat of patients with cystic fibrosis, J. A. Mangos and N. R. McSherry, 135
 Solid-phase radioimmunoassay in antibody-coated tubes, K. Catt and G. W. Tregear, 1570
 Solnit, A. J.: Psychoanalytic studies in child development (AAAS), 811
 Somjen, G. G.: Sensory coding (*meeting report*), 399
 Sonett, C. P. *See* Colburn, D. S., *et al.*
 Sonic booms (*letters*), A. B. Lowenfels *et al.*, 313
 Sorokin, C.: New high-temperature Chlorella, 1204
 Soto, E. F. *See* De Robertis, E., *et al.*
 Source book in geology, 1900-1950, K. F. MATHER (Ed.), *book review* by G. W. White, 898
 Soviet population theory (*editorial*), D. Wolfe, 999
 Spencer, R. L. *See* Christensen, E. M., *et al.*
 Sperling, F. B. *See* Christensen, E. M., *et al.*
 Sperry, K. (*News and Comment*): draft reclassification, 1434; fallout shelter survey, 894; NAS establishes a Board on Medicine, 891; un-American activities, 1294; U.S.-Soviet exchange agreement nears expiration, 751; water pollution, 351
 "Spin-offs" of federal research (*letters*), J. Randolph and P. D. Noerdlinger, 438
 Spinard, R. J.: Automation in the laboratory, 55
 Spinelli, D. N. *See* Horel, J. A., *et al.*
 Splashing of drops on shallow liquids, P. V. Hobbs and T. Osherooff, 1184
 SPORES, R.: The Mixtec kings and their people, *book review* of, 623
 SPRAGUE, J. M. *See* STELLAR, E.
 Squirrel monkey reproduction: the "fatted" male phenomenon and seasonal spermatogenesis, F. V. Du Mond and T. C. Hutchinson, 1067
 Srere, P. A.: Enzyme concentrations in tissue, 936; *erratum*, 1556
 Stability of biogenetic opal, E. D. Gill, 810
 Stable magnetic remanence in antiferromagnetic goethite, D. W. Strangway *et al.*, 785
 Standifer, L. C. *See* Gosselink, J. G.
 Stanifeldite: a new phosphate mineral from stony-iron meteorites, L. H. Fuchs, 910
 Stanford, J. W. *See* Medwedeff, F. M.
 Starfish gonad: action and chemical identification of spawning inhibitor, S. Ikegami *et al.*, 1052
 Staurolite: sectoral compositional variations, L. S. Hollister and A. E. Bence, 1053
 Steere, W. C.: New York Botanical Gar-

INDEX TO VOLUME 158

- den—research and education (*AAAS*), 539
- Steeves, H. R., III. *See* Carlson, S. D., *et al.*
- Steffey, P. C. *See* Rosa, R. J., *et al.*
- Stein, D. G. *See* Brink, J. J.
- Steinbacher, R. H. *See* Jaffe, L. D.
- STEINHART, J. S., and T. J. SMITH (Eds.), The earth beneath the continents, *book review of*, 763
- Steinmuller, D.: Immunization with skin isografts taken from tolerant mice, 127
- STELLAR, E., and J. M. SPRAGUE, Progress in physiological psychology, *book review of*, 1173
- STEPANOV, K. N. *See* AKHIEZER, A. I., *et al.*
- Steward, J. H.: *book review of* The myth of the machine, 105
- STEWARD, J. H. (Ed.), Contemporary change in traditional societies, *book review of*, 759
- Stewart, W. D. P.: Nitrogen-fixing plants, 1426
- Stigler, G. J.: *book review of* The doctor shortage, 1662
- Stimulus generalization as signal detection in pigeons, D. S. Blough, 940
- Stone, R. E. *See* Hulet, E. K., *et al.*
- Strangway, D. W., *et al.*: Stable magnetic remanence in antiferromagnetic goethite, 785
- Strehler, B. L. *See* Wagner, B. M., *et al.*
- Structure and functions of contractile proteins, B. F. POGLAZOV, *book review by* E. W. Taylor, 1172
- Stuart, A. E. *See* Nicholls, J. G., *et al.*
- Student anxiety (*editorial*), P. H. Abelson, 1139
- Student skeptics study UFO's (*letter*), T. Page, 1397
- Student unrest (*editorial*), D. Wolfle, 443
- Successiveness discrimination as a two-state, quantal process, A. B. Kristofferson, 1337
- Sucher, J.: *book review of* Lectures on quantum field theory, 623
- Sugiyama, T., *et al.*: Chromosome abnormality in rat leukemia induced by 7,12-dimethylbenz[a]anthracene, 1058
- Sulfhydryl groups and estradiol-receptor interaction, E. V. Jensen *et al.*, 385
- Sulfide solubilities in alteration-controlled systems, J. J. Hemley *et al.*, 1580
- Sulkin, S. E. *See* Hanson, R. P., *et al.*
- Superconducting magnets in high-energy physics, M. Derrick, 325
- Supernova of 1572, The, H. P. Eugster, 522
- Surveyor V: discussion of chemical analysis, D. E. Gault *et al.*, 641
- Surveyor V: introduction, L. D. Jaffe and R. H. Steinbacher, 631
- Surveyor V: lunar surface mechanical properties, E. M. Christensen *et al.*, 637
- Surveyor V: magnet experiment, J. N. De Wys, 632
- Surveyor V: television pictures, E. M. Shoemaker *et al.*, 642
- Sutherland, B. M., *et al.*: Photoreactivation in vivo of pyrimidine dimers in *Paramecium DNA*, 1699
- Sutton, G. H. *See* Christensen, E. M., *et al.*
- Svehag, S-E., *et al.*: Ultrastructure of gamma M immunoglobulin and alpha macroglobulin: electron-microscopic study, 933
- Swendsen, M. E. *See* Yamada, C., *et al.*
- Swenson, M. E. *See* Hasler, A. D.
- Swindle, D. L. *See* Reynolds, M. A., *et al.*
- Symbiosis, vol. 2, S. M. HENRY (Ed.), *book review by* N. A. Weber, 367
- Symbols and symbolic codes (*letter*), W. Schiff, 1398
- Synovial cell synthesis of a substance immunologically like cartilage proteoplysaccharide, R. Janis *et al.*, 1464
- SZENTAGOOTHAL, J. *See* ECCLES, J. C., *et al.*
- Szent-Györgyi, A. *See* Luria, S. E.
- Szmant, H. H.: *book review of* The chemistry of organic sulfur compounds, vol. 2, 250
- T
- Tai, C., and N. A. Halasz: Histocompatibility antigen transfer *in utero*: tolerance in progeny and sensitization in mother, 125
- Talmage, D. W. *See* Radovich, J.
- Tamura, S. *See* Ikegami, S., *et al.*
- Tandon, S. N., and J. T. Wasson: Indium variations in a petrologic suite of L-group chondrites, 259
- Tauc, J.: Electronic properties of amorphous materials, 1543
- TAUC, J., (Ed.), The optical properties of solids, *book review of*, 1038
- Tausworthe, R. C. *See* Anderson, J. D., *et al.*
- Taylor, E. W.: *book review of* Structure and functions of contractile proteins, 1172
- Taylor, R. E., and R. Berger: Radiocarbon content of marine shells from the Pacific coasts of Central and South America, 1180
- Taylor, W. P. *See* Pollard, E. C., *et al.*
- Technology assessment (*editorial*), D. Wolfle, 209
- Telescopes and automation, S. P. Maran, 867
- Temperature-dependence of the polarity of electrical charges on ice crystals, F. K. Odencrantz and R. W. Buecher, 256
- Tepper, D. J. *See* Petrakis, N. L., *et al.*
- Terpenoids in plants, J. B. PRIDHAM (Ed.), *book review by* R. A. Bernhard, 1558
- Tessman, E. S. *See* Tessman, I., *et al.*
- Tessman, I., *et al.*: Direction of translation in bacteriophage S13, 267
- Tetraploid wheats: seed protein electrophoretic patterns of the Emmer and Timopheevi groups, B. L. Johnson, 131
- Thackray, A.: *book review of* The origins of chemistry, 364
- THALER, R. M. *See* RODEBERG, L. S.
- Thatcher, A. B. *See* Hemley, J. J., *et al.*
- Theilen, G. H. *See* Kawakami, T. G., *et al.*
- Theoretical and experimental biophysics, A. COLE (Ed.), *book review by* J. L. Kavanau, 108
- Thompson, M. E.: *book review of* Glass electrodes for hydrogen and other cations, 625
- Thor, D. H., and D. N. Robinson: Dichoptic viewing and temporal discrimination: an attempted replication, 1704
- Thorns, U. *See* Lindemann, B.
- Thorson, R. E.: *book review of* Research in protozoology, 484
- Thorson, T. B., *et al.*: *Potamotrygon spp.*: elasmobranchs with low urea content, 375
- Tiliqua scincoides*: temperature-sensitive units in lizard brain, M. Cabanac *et al.*, 1050
- Tippetts, R. D. *See* Resnick, M. A., *et al.*
- Todd, J. H., *et al.*: Chemical communication in social behavior of a fish, the yellow bullhead (*Ictalurus natalis*), 672
- Toksöz, M. N., and Arkani-Hamed: Seismic delay times: correlation with other data, 783
- Tolkmith, H., *et al.*: Imidazole: fungitoxic derivatives, 1462
- Topper, Y. J. *See* Voytovich, A. E.
- TOPSELL, E.: The history of four-footed beasts and serpents and insects, *book review of*, 1663
- Total luminous flux: a possible response determinant for the normal monkey, P. Schilder *et al.*, 806
- Towe, K. M.: *book review of* Electron micrographs of limestones and their nannofossils, 1559
- TOWNES, H., and M. TOWNES, A catalogue and reclassification of the Neotropic Ichneumonidae, *book review of*, 107
- TOWNES, M. *See* TOWNES, H.
- Toyoda, J.-I. *See* Ratliff, F., *et al.*
- Traditional crafts of Persia, The, H. E. WULFF, *book review by* R. H. Dyson, Jr., 248
- Traité de zoologie: anatomie, systématique, biologie, vol. 16, P.-P. GRASSÉ (Ed.), *book review by* R. L. Snyder, 625
- Tramezzani, J. H. *See* Chiocchio, S. R., *et al.*
- Transforming activity in green monkey SA7(C8) adenovirus in tissue culture, A. D. Altstein *et al.*, 1455
- Trans-2-hexenal: mating stimulant for polyphemus moths, L. M. Riddiford, 139
- Transition-state models and hydrogen-isotope effects, R. E. Weston, Jr., 332
- Transmission of viruses by the water route, G. BERG (Ed.), *book review by* J. R. Porter, 367
- Trask, N. J., and L. C. Rowan: Lunar orbiter photographs: some fundamental observations, 1529
- Traub, J. F.: *book review of* Interval analysis, 365. *See also* Brown, W. S., *et al.*
- Tree ring indices: a circumpolar comparison, R. K. Haugen, 773
- Tregear, G. W. *See* Catt, K.
- TRICKER, B. J. K. *See* TRICKER, R. A. R.
- TRICKER, R. A. R., and B. J. K. TRICKER, The science of movement, *book review of*, 366
- Tridymite pseudomorphs after wood in Virginian Lower Cretaceous sediments, R. S. Mitchell, 905
- Trostle, P. K. *See* Shaeffer, J. R., *et al.*
- Trumbull, J. V. A., and M. J. McCamis: Geological exploration in an East Coast submarine canyon from a research submersible, 370
- Tsutsui, M. *See* Harris, J., *et al.*
- TULLOCK, G.: The organization of inquiry, *book review of*, 482
- Turbeville, G.: The right to breathe pure air (*letter*), 315
- Turkevich, A. L., *et al.*: Chemical analysis of the moon at the Surveyor V landing site, 635
- TURNER, G. L'E. *See* BRADBURY, S.
- Turner, T. B.: *book review of* The difficult art of giving: the epic of Alan Gregg, 1169
- "Twin meiosis" and other ambivalences in the life cycle of *Schizosaccharomyces pombe*, H. Gutz, 796
- Tyler, A. *See* Clement, A. C.
- U
- Ufford, C. W.: *book review of* Second quantization and atomic spectroscopy, 107
- UFO consensus (*letters*), R. J. Rosa *et al.*, 1265
- UFO's: ideal space inhabitants (*letter*), M. Heiman, 580
- ULLMANN, L. P., Institution and outcome, *book review of*, 1170
- Ulrych, T. J.: Oceanic basalt leads: a new interpretation and an independent age for the earth, 252
- Ultrasonic absorption, A. B. BHATIA, *book review by* C. J. Montrose, 1441
- Ultrastructure of gamma M immunoglobulin and alpha macroglobulin: electron-microscopic study, S-E. Svehag *et al.*, 933
- Ultraviolet emissions observed near Venus from Mariner V, C. A. Barth, *et al.*, 1675

INDEX TO VOLUME 158

- Ultraviolet spectra of stars, A. B. Underhill and D. C. Morton, 1273
 Underhill, A. B., and D. C. Morton: Ultraviolet spectra of stars, 1273
 Undersea penetration by ambient light, and visibility, R. F. Busby, 1178
 Ungar, E. W.: Ablation thermal protection systems, 740
 Unlimited national resources? (*letter*), W. K. Fife, 207
 Updike, S. J., and G. P. Hicks: Reagentless substrate analysis with immobilized enzymes, 270
 Upward spiral of cost and dues (*letters*), E. B. Hook and D. Wolfle, 854

V

- Vallee, J. F. *See* Rosa, R. J., *et al.*
 Van Allen, J. A., *et al.* Venus: an upper limit on the intrinsic magnetic dipole moment based on the absence of a Venusian radiation belt, 1673
 Van Allen, J. A. (*editorial*): Are we to abandon the planets to the Soviet Union?, 1405. *See also* Brown, R. T.
 van Bergeijk, W. A., *et al.*: Reductionism and real biology (*letters*), 857
 Van Citters, R. L.: Dangers to marine mammals confirmed (*letter*), 206
 Vandenberg, J. S. *See* Carlson, S. D., *et al.*
 VAN DEN BERGHE, P. L.: Race and racism, *book review* of, 1557
 Van Duuren, B. L. *See* Harris, J., *et al.*
 van Tassell, E. *See* Eisner, T., *et al.*
 Van Valen, L. *See* Richards, P. I.
 Van Zandt, D. *See* Carricker, M. R., *et al.*
 Variations in the isotopic composition of carbon in urban atmospheric carbon dioxide, L. Friedman and A. P. Irsa, 263
 Varsavsky, C. M.: Radio sources in the vicinity of source M 31, 1043
 Vasko, K. A. *See* Rawson, R. O., *et al.*
 Venus: an upper limit on the intrinsic magnetic dipole moment based on the absence of a Venusian radiation belt, J. A. Van Allen *et al.*, 1673
 Venus: ionosphere and atmosphere as measured by dual-frequency radio occultation of Mariner V, Mariner Stanford Group, 1678
 Venus: tectonic activity, J. Weertman *et al.*, 395
 Veverka, J. *See* Sagan, C.
 Vierck, C. J., Jr. *See* Horel, J. A., *et al.*
 Vietnam (*letters*), S. Buckser *et al.*, 1393
 Vietnam: a national catastrophe (*letter*), S. E. Luria and A. Szent-Györgyi, 47
 Villegas, D. B.: Ribonucleic acid: control of steroid synthesis in endocrine tissue, 652
 Vine, A. C. *See* Lvov, V., *et al.*
 Virginia's marine institute (*letter*), W. J. Hargis, Jr., 1622
 Virus-induced peliosis hepatitis in rats, V. V. Bergs and T. M. Scotti, 377
 Visceral tissue vascularization: an adaptive response to high temperature, R. O. Rawson *et al.*, 1203
 Visual form discrimination after removal of the visual cortex in cats, S. S. Winans, 944
 Vitamin A deficiency: effect on retinal structure of the moth *Manduca sexta*, S. D. Carlson *et al.*, 268
 Vitamin D and skin pigments (*letters*), F. R. Freeman and W. F. Loomis, 579
 Vogel, S.: *book review* of The science of movement, 366
 VON BÉKÉSY, G.: Sensory inhibition, *book review* of, 1296
 Voytovich, A. E., and Y. J. Topper: Hormone-dependent differentiation of immature mouse mammary gland in vitro, 1326
 Vurek, G. G. *See* Bowman, R. L., *et al.*

W

- Wachtel, H., and E. R. Kandel: Direct synaptic connection mediating both excitation and inhibition, 1206
 Waddington, C. J.: Paleomagnetic field reversals and cosmic radiation, 913
 Wagner, B. M., *et al.*: Biological aging research (*letters*), 1393
 Wagner, W. *See* Kylstra, J. A., *et al.*
 Walker, T. J. *See* Lloyd, J. E.
 Wallace, L. *See* Barth, C. A., *et al.*
 Wallace, R. A. *See* Haarstad, V. B., *et al.*
 Walsh, J. (*News and Comment*): Aldabra, 1164; British science policy, 1030; education reform, 1162; Euratom, 95; foot-and-mouth disease, 1435; space science in Europe, 242
 Walsh, K. A. *See* Neurath, H., *et al.*
 Washburn, S. L.: *book review* of Social communication among primates, 481
 Wasson, J. T. *See* Tandon, S. N.
 Waterman, T. H.: *book review* of Invertebrate nervous systems: their significance for mammalian neurophysiology, 1661
 Watson, D. E. *See* Thorson, T. B., *et al.*
 Wax microchannels in the epidermis of white clover, D. M. Hall, 505
 Weather modification (*AAAS*), J. E. Fletcher, 276
 WEAVER, C. E. (Ed.): Changing identity of graduate earth science education, *book review* of, 249
 Weaver, W.: Philanthropic foundation and grants to universities (*letter*), 1133
 Web-building spiders (*AAAS*), P. N. Witt, 1216
 Webb, J. S.: Other natural bromo compounds, 522
 Weber, N. A.: *book review* of Symbiosis, vol. 2, 366
 Weertman, J., *et al.*: Venus: tectonic activity, 395
 Weightlessness in space (*letter*), F. E. M. Lilley, 317
 Weinberg, A. M.: On limiting offensive weapons (*letter*), 1622
 Weinhouse, S.: Hepatomas (*meeting report*), 542
 Weisskopf, V. F. (*News and Comment*): Nobel prize for Hans A. Bethe, 745
 Weissman, S. M. *See* Forget, B. G.
 Wenner, A. M. *See* Frisch, K. v., *et al.*
 Werboff, J. *See* Cairns, R. B.
 Weston, R. E., Jr.: Transition-state models and hydrogen-isotope effects, 332
 When monkeys are rats (*letter*), M. E. Sarty, 205
 Whissell, D. *See* Heddle, J. A., *et al.*
 Whistler, R. L.: *book review* of Carbohydrate chemistry, 1299
 Whitaker, E. A. *See* Shoemaker, E. M., *et al.*
 White, E. W., and W. B. White: Electron microscope and optical absorption study of colored kyanites, 915
 White, G. W.: *book review* of Source book in geology, 1900-1950, 898
 White, W. B. *See* White, E. W.
 WHITESIDE, D. T. (Ed.): The mathematical papers of Isaac Newton, *book review* of, 245
 Viberg, K. B.: *book review* of Advances in alicyclic chemistry, 1039
 Wicke, C. R.: *book review* of The Mixtec kings and their people, 623
 Wickelgren, W. O. *See* Nicholls, J. G., *et al.*
 WIERSMA, C. G. A. (Ed.): Invertebrate nervous systems: their significance for mammalian neurophysiology, *book review* of, 1661
 Wieser, W. *See* van Bergeijk, W. A., *et al.*
 Wigley, R. L. *See* Emery, K. O., *et al.*
 Willcocks, R. G. W.: Fresh water and cheap power for tropical islands (*letter*), 1525

William James, G. W. ALLEN, *book review* by J. Barzun, 480

Williams, A. W., Jr. *See* Flannery, K. V., *et al.*

Williamson, R. L., and R. L. Metcalf: Salicylanilides: a new group of active uncouplers of oxidative phosphorylation, 1694

Wilson, A. C. *See* Sarich, V. M.

Wilson, E. O.: *book review* of The ecology of insect populations in theory and practice, 622

Wilson, R. N.: *book review* of Institution and outcome, 1170

Winans, S. S.: Visual form discrimination after removal of the visual cortex in cats, 944

Winter, W. P. *See* Neurath, H., *et al.*

Witt, P. N.: Web-building spiders (*AAAS*), 1216

Wittenberg, J. B.: *book review* of Hemes and hemoproteins, 485

WOGAN, G. N. *See* MATELES, R. I.

Wolf, E. R.: *book review* of Contemporary change in traditional societies, 759

Wolff, C.: Optical environment about the OGO-III satellite, 1045

Wolff, S. *See* Heddle, J. A., *et al.*

Wolffe, D. (*editorials*): Achievement and management, 721; Amendments to AAAS constitution and bylaws, 1086; New words, 1627; Selective Service solution, 1271; Soviet population theory, 999; Student unrest, 443; Technology assessment, 209. *See also* Hook, E. B.

Wolffe, L. S. *See* Derry, D. M.

Wolfson, A. *See* Sayler, A.

Woodford, F. P.: "All we like sheep have gone astray" (*letter*), 1625

Woods Hole: now and then (*letters*), R. F. Nunnemacher and V. A. Zullo, 852

Woodward, H. P.: Geology along the North Atlantic (*meeting report*), 1368

Woolf, H.: *book review* of The history of four-footed beasts and serpents and insects, 1663

Woolsey, C. N. *See* Dews, P. B., *et al.*

Work, T. H. *See* Hanson, R. P., *et al.*

World outlook for conventional agriculture, The, L. R. Brown, 604

Worzel, J. L.: Lamont Geological Observatory (*AAAS*), 948

Wright, A. *See* Robbins, P. W., *et al.*

Wright, E. W., Jr. *See* Libet, B., *et al.*

Wright, R. J. *See* Reynolds, M. A., *et al.*

Writers: fancies and foibles (*letters*), P. I. Richards and L. Van Valen, 319

WULFF, H. E.: The traditional crafts of Persia, *book review* of, 248

Wurtman, R. J., *et al.*: Daily rhythm in tyrosine concentration in human plasma: persistence on low-protein diets, 660

Wynberg, H., *et al.*: Does science neglect society? (*letters*), 1134

Wynne, E. S. *See* Buckser, S., *et al.*

X-Z

X-rays from sources 3C 273 and M 87, H. Friedman and E. T. Byram, 257

Yamada, C., *et al.*: Actinomycin D effect on amino acid absorption from rat jejunal loops, 129

YANCEY, W. L. *See* RAINWATER, L.

Yang, N. C.: *book review* of Organic photochemistry, 1039

Yinger, J. M.: *book review* of Race and racism, 1557

Yonetani, T. *See* Chance, B., *et al.*

Young, J. W. *See* Shrago, E., *et al.*

Young, P. L. *See* Roberts, S., *et al.*

Youtz, B. L., *et al.*: Reactions from Reed (*letters*), 1398

Zajdela, F. *See* Lacassagne, A., *et al.*

Zetler, B. D. *See* Munk, W. H.

Zullo, V. A. *See* Nunnemacher, R. F.