

SCIENCE

Index to Volume 196, April-June 1977

Issue No.	Date	Pages	Issue No.	Date	Pages	Issue No.	Date	Pages
4285	1 April	1-100	4290	6 May	565-694	4294	3 June	1035-1134
4286	8 April	101-240	4291	13 May	695-810	4295	10 June	1135-1250
4287	15 April	241-364	4292	20 May	811-926	4296	17 June	1251-1374
4288	22 April	365-472	4293	27 May	927-1034	4297	24 June	1375-1486
4289	29 April	473-564						

The names of authors of books reviewed are in SMALL CAPITALS.

A

- Abelson, J.: Recombinant DNA: examples of present-day research, 159. *See also* Beckmann, J. S., *et al.*
- Abelson, P. H. (editorials): Alaskan oil, 13; Energy conservation is not enough, 1159; Office of Technology Assessment, 1391
- Abundance effects in classification, B. HAUCK and P. C. KEENAN (Eds.), *book review* by E. J. Wampler, 777
- Abzug, C. *See* Winson, J.
- Academy energy study (*letter*), H. Brooks and E. L. Ginzton, 372
- Adams, J. A. S., *et al.*: Wood versus fossil fuel as a source of excess carbon dioxide in the atmosphere: a preliminary report, 54
- Adams, R. N., *et al.*: "Scientific" social anthropology (*letters*), 372
- Adaptation to environment, R. C. NEWELL (Ed.), *book review* by J. E. Bardach, 644
- Adequate response of plasma 1,25-dihydroxyvitamin D to parturition in paretic (milk fever) dairy cows, R. L. Horst *et al.*, 662
- African trypanosomes: cultivation of animal-infective *Trypanosoma brucei* in vitro, H. Hirumi *et al.*, 992
- Ahmed, A. *See* Wiktor-Jedrzejczak, W., *et al.*
- Ahn, H. *See* John, E. R., *et al.*
- AISLE conference aids Massachusetts lawmakers (AAAS), R. A. Scribner, 46
- AITKEN, H. G. J., Syntony and spark, *book review* of, 1083
- Alaskan oil (*editorial*), P. H. Abelson, 13
- Alcohol drinking: abnormal intake caused by tetrahydropapaveroline in brain, R. D. Myers and C. L. Melchior, 554
- Aldehyde oxidase compartmentalization in *Drosophila melanogaster* wing imaginal disks, D. T. Kuhn and G. N. Cunningham, 875
- Alexander, R. D., and P. W. Sherman: Local mate competition and parental investment in social insects, 494
- Allelopathic influence on blue-green bloom sequence in a eutrophic lake, K. I. Keating, 885
- Allen, J. R. *See* Bushnell, P. J., *et al.*
- Altay, G. *See* Garver, F. A., *et al.*
- Altman, A. J. *See* Mundy, G. R., *et al.*
- Alvarez, L. W. *See* Muller, R. A., *et al.*
- Alzheimer's disease, trisomy 21, and myeloproliferative disorders: associations suggesting a genetic diathesis, L. L. Heston, 322
- Amarose, A. P. *See* Koo, G. C., *et al.*
- Amplitude spectrum representation in the Doppler-shifted-CF processing area of the auditory cortex of the mustache bat, N. Suga, 64
- Analog of enkephalin having prolonged opiate-like effects in vivo, An., J. M. Walker *et al.*, 85
- Analysis of chicken ribosomal RNA genes and construction of lambda hybrids containing gene fragments, W. McClements and A. M. Skalka, 195
- Anderson, D. L., *et al.*: The earth as a seismic absorption band, 1104
- Anderson, M. J. *See* Ko, P. K., *et al.*
- Angiotensin injected into the neostriatum after learning disrupts retention performance, J. M. Morgan and A. Routtenberg, 87
- Anomalous temperature dependence for a partial vapor pressure, J. A. Roberts, Jr., and A. W. Searcy, 525
- Anoxic, hypersaline basin in the northern Gulf of Mexico, R. F. Shokes *et al.*, 1443
- Antagonisms and controversies (*letter*), M. E. Smith, 258
- Antarctic marine flora: uniquely devoid of kelps, R. L. Moe and P. C. Silva, 1206
- Antigen-antibody reactions in rat brain sites induce transient changes in drinking behavior, C. A. Williams, Jr., and N. Schupf, 328
- Antileukemia activity in the oscillatoriae: isolation of debromoaplysiatoxin from *Lyngbya*, J. S. Mynderse *et al.*, 538
- Antischizophrenic drugs: chronic treatment elevates dopamine receptor binding in brain, D. R. Burt *et al.*, 326
- Apical dichotomy demonstrated in the angiosperm *Flagellaria*, P. B. Tomlinson and U. Posluszny, 1111
- Armstrong, K. A., *et al.*: Gene cloning and containment properties of plasmid Col E1 and its derivatives, 172
- ASHBURNER, M., and E. NOVITSKI (Eds.), The genetics and biology of *Drosophila*, *book review* of, 290
- ASM on recombinant DNA (*letter*), H. O. Halvorson, 1154
- Aspergillus oryzae* (NRRL strain 1988), L. Stoloff *et al.*, 1353
- Association Affairs: AAAS news, 46, 642, 1076; annual elections, 1078; annual meeting, 749
- Assortative mating by unwed biological parents of adopted children, R. Plomin *et al.*, 449
- Astronomy transformed, D. O. EDGE and M. J. MULKAY, *book review* by D. J. Kevles, 774
- Asymmetric structure of the purple membrane, A. E. Blaurock and G. I. King, 1101
- Asymptomatic gonorrhea in men: caused by gonococci with unique nutritional requirements, G. Crawford *et al.*, 1352
- Atcher, R. *See* Fried, S., *et al.*
- Athenstaedt, H. *See* Lang, S. B.
- Atoms and molecules in electric fields, N. RYDE, *book review* by W. Happer, 866
- Attallah, A. *See* Houck, J. C., *et al.*
- AUDUS, L. J. (Ed.), Herbicides, *book review* of, 419
- Aumüller, G. *See* Stumpf, W. E., *et al.*
- Ayala, F. J.: *book review* of Evolution and the genetics of populations, 1191

B

- Babesia rodhaini*: requirement of complement for penetration of human erythrocytes, W. E. Chapman and P. A. Ward, 67
- Backman, K., *et al.*: Use of phage immunity in molecular cloning experiments, 182
- Baer, W. S., *et al.*: Government-sponsored demonstrations of new technologies, 950
- Baig, S. *See* Volavka, J., *et al.*
- BAILEY, D. K., and R. MACDONALD (Eds.), The evolution of the crystalline rocks, *book review* of, 518
- Baker, H. J. *See* Cork, L. C., *et al.*
- Baker, M. M. *See* Garver, F. A., *et al.*
- Baker, T. S., *et al.*: Ribulose biphosphate carboxylase: a two-layered, square-shaped molecule of symmetry 422, 293
- Bandelin, J. G. See Mundy, G. R., *et al.*
- Bandi, W. R.: Second phases in steel, 136
- Bandy, A. R. *See* Maroulis, P. J.
- Bárány, M.: *book review* of Calcium in biological systems, 289
- Bardach, J. E.: *book review* of Adaptation to environment, 644
- Barker, D. S.: *book review* of The evolution of the crystalline rocks, 518
- Barker, J. *See* Benz, E., Jr., *et al.*
- Barnes, C. R. (Ed.), Conodont paleoecology, *book review* of, 1433
- Barnett, W. E. *See* Lomax, M. I., *et al.*
- Barnhart, J. E. *See* Pizzi, W. J., *et al.*
- Barot, D. T. *See* Tien, C., *et al.*
- Barranger, J. A. *See* Sakuragawa, N., *et al.*
- BARRETT, P. H. (Ed.). The collected papers of Charles Darwin, *book review* of, 784
- Bartke, A. *See* Dalterio, S., *et al.*
- Bartlett, F. *See* John, E. R., *et al.*
- Bashi, J. *See* Davis, D. J., *et al.*
- Basilevsky, A. T. *See* Florensky, C. P., *et al.*

- Be and shell stars, A. SLETTEBAK (Ed.), *book review* by E. J. Wampler, 777
- Beagley, W. K., and T. L. Holley: Hypothalamic stimulation facilitates contralateral visual control of a learned response, 321
- BEALE, I. L. *See* CORBALLIS, M. C.
- Beatty, B. J. *See* Thompson, W. H.
- Beckmann, J. S., *et al.*: Cloning of yeast transfer RNA genes in *Escherichia coli*, 205
- BEGAB, M. J., and S. A. RICHARDSON (Eds.), *The mentally retarded and society, book review of*, 1192
- Beidelman, T. O. *See* Adams, R. N., *et al.*
- Belfield, R.: *book review of* Syntony and spark, 1083
- BELLAIRS, A. D'A., and C. B. COX (Eds.), *Morphology and biology of reptiles, book review of*, 866
- Bellisle, F. *See* Beninger, R. J., *et al.*
- Beninger, R. J., *et al.*: Schedule control of behavior reinforced by electrical stimulation of the brain, 547
- Benton, W. D., and R. W. Davis: Screening λ gt recombinant clones by hybridization to single plaques in situ, 180
- Benz, E., Jr., *et al.*: Stability of the individual globin genes during erythroid differentiation, 1213
- Benzo[a]pyrene diol epoxides: mechanism of enzymatic formation and optically active intermediates, S. K. Yang *et al.*, 1199
- Berg, P. *See* Villarreal, L. P.
- Berger, P. J. *See* Negus, N. C.
- Bergström, G. *See* Tengö, J.
- Berman, H. M.: *book review of* Protein crystallography, 50
- Berntson, G. G. *See* Walker, J. M., *et al.*
- Berremán, G. D. *See* Adams, R. N., *et al.*
- Bersch, N. *See* Golde, D. W., *et al.*
- Besch, H. R., Jr. *See* Kennedy, S. J., *et al.*
- Besharse, J. C., *et al.*: Photoreceptor outer segments: accelerated membrane renewal in rods after exposure to light, 536
- Bile, prolactin, and the maternal pheromone, H. Moltz and L. C. Leidahl, 81
- Biomechanics and energetics of muscular exercise, R. MARGARIA, *book review* by R. E. Davies, 50
- Birr, K.: *book review of* A history of engineering and science in the Bell System, 49
- Birth order and intellectual development: the confluence model in the light of cross-cultural evidence, D. J. Davis *et al.*, 1470
- BISHOP, Y. M. M., *et al.*: Discrete multivariate analysis, *book review of*, 156
- Bito, L. Z.: Inflammatory effects of endotoxin-like contaminants in commonly used protein preparations, 83
- BITTERMAN, M. E. *See* MASTERTON, R. B., C. B. G. CAMPBELL, M. E. BITTERMAN, N. HOTTON
- BLACK, C. G. *See* BURRIS, R. H.
- Blass, E. M. *See* Kenny, J. T.
- Blattner, F. R., *et al.*: Charon phages: safer derivatives of bacteriophage lambda for DNA cloning, 161
- Blaurock, A. E., and G. I. King: Asymmetric structure of purple membrane, 1101
- Blechl, A. E. *See* Blattner, F. R., *et al.*
- Blind side of science policy, The (*editorial*), W. D. Carey, 1045
- Blough, D. S.: Visual search in the pigeon: hunt and peck method, 1013
- BLUNDELL, T. L., and L. N. JOHNSON: Protein crystallography, *book review of*, 50
- Bodenhamer, R. *See* Pollak, G., *et al.*
- Boeck, W. L. *See* Gjørup, H. L.
- Boffey, P. M. (*News and Comment*): arms control impact statements, 1181; Atkinson and National Science Foundation, 145; Daddario resigns from Office of Technology Assessment, 1066; election process at National Academy of Sciences, 738; industrial researchers and NSF grants, 142; military medical schools rescued, 742; polio vaccine safety, 35; Press as science adviser, 38, 412, 742; smallpox, 1298; Solar Energy Research Institute, 278; Stanford faculty members in Washington, 631; Swedish approach to energy, 856
- Bolin, B.: Changes of land biota and their importance for the carbon cycle, 613
- Bombesin: potent effects on thermoregulation in the rat, M. Brown *et al.*, 998
- Bonilla, E. *See* Schotland, D. L., *et al.*
- Boranes and their relatives, The, W. N. Lipscomb, 1047
- BORGERS, M., and M. DE BRABANDER (Eds.), *Microtubules and microtubule inhibitors, book review of*, 421
- Bormann, F. H., *et al.*: Nitrogen budget for an aggrading northern hardwood forest ecosystem, 981
- Borun, T. *See* Kendall, F., *et al.*
- Bowers, W. S., *et al.*: Sesquiterpene progenitor, germacrene A: an alarm pheromone in aphids, 680
- BOWLER, P. J., *et al.*: Fossils and progress, *book review of*, 517
- Bowman, R. E. *See* Bushnell, P. J., *et al.*
- Boyer, H. W. *See* Scheller, R. H., *et al.*, page 177
- Brady, R. O. *See* Sakuragawa, N., *et al.*
- Branscomb, L. M.: International conferences and tax reform (*editorial*), 719; Science in the White House: a new start, 848
- Brattsten, L. B., and C. F. Wilkinson: Insecticide solvents: interference with insecticidal action, 1211
- Brattsten, L. B., *et al.*: Herbivore-plant interactions: mixed-function oxidases and secondary plant substances, 1349
- Britten, R. J. *See* Lee, A. S., *et al.* *See also* Scheller, R. H., *et al.*, page 197
- Brooks, C. *See* Chayes, F., *et al.*
- Brooks, H., and E. L. Ginzton: Academy energy study (*letter*), 372
- Brown, D. *See* John, E. R., *et al.*
- Brown, J. H., and D. W. Davidson: Competition between seed-eating rodents and ants in desert ecosystems, 880
- Brown, M., *et al.*: Bombesin: potent effects on thermoregulation in the rat, 998; Somatostatin: analogs with selected biological activities, 1467
- Brown, T. J. *See* Sibert, J., *et al.*
- BRUSH, S. G.: The kind of motion we call heat, *book review of*, 783
- Brusilow, S. W. *See* Epstein, M. H., *et al.*
- Btu borrowing? (*letter*), S. F. Singer, 1041
- Buchwald, J. S. *See* Norman, R. J., *et al.*
- Buckley, R. *See* Hotchin, J., and R. Buckley
- Burdowski, A. J. *See* Naughton, B. A., *et al.*
- BURRIS, R. H., and C. C. BLACK (Eds.), *CO₂ metabolism and plant productivity, book review of*, 1084
- Burstein, S. *See* Dalterio, S., *et al.*
- Burt, D. R., *et al.*: Antischizophrenic drugs: chronic treatment elevates dopamine receptor binding in brain, 326
- Busbee, G. *See* Press, F.
- Bushnell, P. J., *et al.*: Scotopic vision deficits in young monkeys exposed to lead, 333
- Butterfield, W. K. *See* Shortridge, K. F., *et al.*
- BUTZER, K. W.: Early hydraulic civilization in Egypt, *book review of*, 971
- Byrne, G. F. *See* Kalma, J. D., *et al.*
- Cacheiro, N. L. A. *See* Moses, M. J., *et al.*
- Cahan, S. *See* Davis, D. J., *et al.*
- Calcium in biological systems, *book review* by M. Bárány, 289
- Cameron, J. R. *See* Panasencko, S. M., *et al.*
- Cameron, J. R., and R. W. Davis: The effects of *Escherichia coli* and yeast DNA insertions on the growth of lambda bacteriophage, 212
- CAMPBELL, C. B. G. *See* MASTERTON, R. B., C. B. G. CAMPBELL, M. E. BITTERMAN, N. HOTTON
- Campbell, C. H. *See* Shortridge, K. F., *et al.*
- Campbell, D. B., *et al.*: Galilean satellites of Jupiter: 12.6-centimeter radar observations, 650
- Cangiano, A., and L. Lutzemberger: Partial denervation affects both denervated and innervated fibers in the mammalian skeletal muscle, 542
- Cannabinoids inhibit testosterone secretion by mouse testes in vitro, S. Dalterio *et al.*, 1472
- CANNELL, M. G. R., and F. T. LAST (Eds.), *Tree physiology and yield improvement, book review of*, 865
- Cannon, P. J.: Meteorite impact crater discovered in central Alaska with Landsat imagery, 1322
- Caracena, F. *See* Kuhn, P., *et al.*
- CO₂ metabolism and plant productivity, R. H. BURRIS and C. C. BLACK (Eds.), *book review* by G. H. Heichel, 1084
- Carcinogens in schools (*letter*), E. B. Sansone and W. Lijinsky, 1272
- Cardiac pacemaking: an obligatory role of catecholamines?, G. H. Pollack, 731
- CAREY, S. W.: The expanding earth, *book review of*, 778
- Carey, W. D. (*editorials*): The blind side of science, 1045; The Denver meeting: afterthoughts, 265
- Carino, M. A. *See* Smith, J. R., *et al.*
- Carlson, P. S. *See* Szeto, W. W., *et al.*
- CARROLL, J. S., and J. W. PAYNE (Eds.), *Cognition and social behavior, book review of*, 1309
- Carter, L. J. (*News and Comment*): Alaskan gas, 1068; Andrus at Department of Interior, 507; Bergland and research at Department of Agriculture, 506; energy message by Carter, 630; environment high on Carter agenda, 1065; public interest lawyers, 961; soil erosion, 409; water projects dispute, 1303
- Caspian escargotières, The: a clarification, D. Lubell, 335
- Catastrophe theory (*letters*), M. Senechal *et al.*, 1270
- Cell membrane sodium pump as a mechanism for increasing thermogenesis during cold acclimation in rats, D. L. Guernsey and E. D. Stevens, 908
- Cell motility, R. GOLDMAN *et al.* (Eds.), *book review* by R. E. Kane, 773
- Cerebrospinal fluid production: stimulation by cholera toxin, M. H. Epstein *et al.*, 1012
- Chainlike formation of particle deposits in fluid-particle separation, C. Tien *et al.*, 983
- Chamness, G. C. *See* Zava, D. T., *et al.*
- Chandler, J. F. *See* Campbell, D. B., *et al.*
- Chang, K. C., *et al.*: Stable semiconductor liquid junction cell with 9 percent solar-to-electrical conversion efficiency, 1097
- Chang, S. C. *See* Harshbarger, J. C., *et al.*
- Changes in land biota and their importance for the carbon cycle, B. Bolin, 613
- Changnon, S. A., Jr.: Section W annual meeting symposia break records (AAAS), 643
- Chapman, W. E., and P. A. Ward: *Babesia rodhaini*: requirement of complement for penetration of human erythrocytes, 67
- Chapra, S. C., and A. Robertson: Great Lakes eutrophication: the effect of point source control of total phosphorus, 1448
- Characterization of a new human diploid cell strain, IMR-90, W. W. Nichols *et al.*, 60
- Charon phages: safer derivatives of bacteriophage lambda for DNA cloning, F. R. Blattner *et al.*, 161
- Chayes, F., *et al.*: Use of correlation statistics with rubidium-strontium systematics, 1234
- Chee, F. K. W. *See* Clark, D. L., *et al.*
- Chemical synthesis of restriction enzyme recognition sites useful for cloning, R. H. Scheller *et al.*, 177
- Chemotaxis of *Rhizobium spp.* to a glycoprotein produced by birdsfoot trefoil roots, W. W. Currier and G. A. Strobel, 434
- Chen, J. R., *et al.*: Legionnaires' disease: nickel levels, 906
- Cheng, C. H. *See* Toksöz, M. N., *et al.*
- Chesnut, R. M. *See* Smith, J. R., *et al.*
- Chiang, C. C., and I. C. Paul: Monomeric forms of the acid ionophore lasalocid A (X-537A) from polar solvents, 1441
- Chin, J. H., and D. B. Goldstein: Drug toler-

C

- ance in biomembranes: a spin label study of the effects of ethanol, 684
- Chirgwin, J. *See* Ullrich, A., *et al.*
- Chlamydiae (with phages), mycoplasmas, and rickettsiae in Chesapeake Bay bivalves, J. C. Harshbarger *et al.*, 666
- Chovnick, A.: *book review* of The genetics and biology of *Drosophila*, 290
- Chowdhury, P. *See* Glaser, C. B., *et al.*
- Christian, C. N., *et al.*: Synapse formation between two clonal cell lines, 995
- Chromatic organization of primate cones, R. E. Marc and H. G. Sperling, 454
- Chu, M. Y. *See* Raetz, C. R. H., *et al.*
- Chung, A. *See* Houck, J. C., *et al.*
- Civil defense and nuclear blackmail (*letter*), E. P. Wigner and C. M. Haaland, 912
- Clark, A. J. *See* Crisona, N. J.
- CLARK, C. W., Mathematical bioeconomics, *book review* of, 1082
- Clark, D. L., *et al.*: Vestibular stimulation influence on motor development in infants, 1228
- Clark, M. T. *See* Wilson, W. A., *et al.*
- Classical conditioning with auditory discrimination of the eye blink in decerebrate cats, R. J. Norman *et al.*, 551
- Classical nictitating membrane conditioning in the awake, normal, restrained cat, M. M. Patterson *et al.*, 1124
- Clear air turbulence: detection by infrared observations of water vapor, P. Kuhn *et al.*, 1099
- Clement, J. *See* Patterson, M. M., *et al.*
- Clement, R. C.: World hunger (*letter*), 938
- Cleptoparasitism and odor mimetism in bees: do *Nomada* males imitate the odor of *Andrena* females?, J. Tengö and G. Bergström, 1117
- Cloned ribosomal RNA genes from chloroplasts of *Euglena gracilis*, M. I. Lomax *et al.*, 202
- Clones of individual repetitive sequences from sea urchin DNA constructed with synthetic Eco RI sites, R. H. Scheller *et al.*, 197
- Cloning of cauliflower mosaic virus (CLMV) DNA in *Escherichia coli*, W. W. Szeto *et al.*, 210
- Cloning of yeast transfer RNA genes in *Escherichia coli*, J. S. Beckmann *et al.*, 205
- Coffelt, C. F. *See* Stern, E., *et al.*
- Cognition and social behavior, J. S. CARROLL and J. W. PAYNE (Eds.), *book review* by M. Ross, 1309
- Cognitive development, A. R. LURIA, *book review* by S. H. White, 767
- Cohen, M. *See* Eisner, T., *et al.*
- Cohen, M. W. *See* Ko, P. K., *et al.*
- COHN, W. E., and E. VOLKIN (Eds.), Progress in nucleic acid research and molecular biology, *book review* of, 644
- Colinvaux, P.: *book review* of Soils of the polar landscapes, 779
- Collected papers in avian paleontology honoring the 90th birthday of Alexander Wetmore, S. L. OLSON (Ed.), *book review* by C. A. Walker, 288
- Collected papers of Charles Darwin, The, P. H. BARRETT (Ed.), *book review* by M. T. Ghiselin, 784
- Collector, M. I. *See* Monjan, A. A.
- Collins, M. S. *See* McKeachie, W. J., *et al.*
- COLP, R., JR. (Ed.), To be an invalid, *book review* of, 1431
- Comparative breeding characteristics of fusion and fast reactors, P. Fortescue, 1326
- Competition between seed-eating rodents and ants in desert ecosystems, J. H. Brown and D. W. Davidson, 880
- Compound ovary with open carpels in Winteraceae (magnoliales): evolutionary implications, A. J.-F. Leroy, 977
- Conklin, H. E.: Soil conversation (*letter*), 1040
- Conner, W. E. *See* Eisner, T., *et al.*
- Conodont paleoecology, C. R. BARNES (Ed.), *book review* by T. J. M. Schopf, 1433
- Controlling the pink bollworm by disrupting sex pheromone communication between adult moths, L. K. Gaston *et al.*, 904
- Controversial grant proposal (*letter*), E. A. Shneur, 124
- Conway, G. R.: *book review* of Mathematical bioeconomics, 1082
- Cook, E. *See* Dorfman, R.
- Cooper, R., *et al.*: Cortical potentials associated with the detection of visual events, 74
- CORBALLIS, M. C., and I. L. BEALE, The psychology of left and right, *book review* of, 768
- Cork, L. C., *et al.*: GM₂ ganglioside lysosomal storage disease in cats with β -hexosaminidase deficiency, 1014
- Corning, W. C. *See* John, E. R., *et al.*
- CORNUDELLA, L. *See* KORNBERG, A., *et al.*
- Cortical potentials associated with the detection of visual events, R. Cooper *et al.*, 74
- Cotzias, G. C., *et al.*: Levodopa, fertility, and longevity, 549
- Counce, S. J.: *book review* of Insect development, 772
- Covalent labeling of the tetrodotoxin receptor in excitable membranes, R. J. Guillory *et al.*, 883
- Covers: abalone releasing sperm (15 Apr.); California coastline shown by remote sensing techniques (29 Apr.); Charon 11 vector phages (8 Apr.); decanter reproduction (27 May); embryonic sporophytes of Antarctic brown seaweeds (10 June); fossil reptile reconstruction (3 June); Höküle'a heading south toward Tahiti (17 June); keel-billed toucan (6 May); micropyle on surface of egg (24 June); plant "growth under difficulties" (13 May); stomatal guard cells from an onion cotyledon (20 May); tomato plant afflicted with lethal necrotic disease (22 Apr.); wheat field (1 Apr.)
- Cowgill, G. L.: *book review* of Spatial analysis in archaeology, 972
- COX, C. B. *See* BELLAIRS, A. D'A.
- Coy, D. H. *See* Walker, J. M., *et al.*
- Coyle, J. T., and M. E. Molliver: Major innervation of newborn rat cortex by monoaminergic neurons, 444
- Craig, J. C.: Vibrotactile pattern perception: extraordinary observers, 450
- Craig, R. S. *See* Elattar, A., *et al.*
- Craske, B.: Perception of impossible limb positions induced by tendon vibration, 71
- Crawford, G., *et al.*: Asymptomatic gonorrhea in men: caused by gonococci with unique nutritional requirements, 1352
- Crawford, M. H.: *book review* of Patterns of human variation, 153
- Crecelius, E. A. *See* Robertson, D. E., *et al.*
- Creese, I. *See* Burt, D. R., *et al.*
- Crisona, N. J., and A. J. Clark: Increase in conjugational transmission frequency of nonconjugative plasmids, 186
- Cristofalo, V. J. *See* Nichols, W. W., *et al.*
- Croxen, R. L. *See* Kuettner, K. E., *et al.*
- Cucumber mosaic virus associated RNA 5: causal agent for tomato necrosis, J. M. Kaper and H. E. Waterworth, 429
- Culliton, B. J. (*News and Comment*): academics and disclosure policies, 37; assistant secretary for health, 148, 635, 739; drugs in animal feeds, 510, mammography and National Cancer Institute, 853; NCI directorship, 635; saccharin, 276, 1179
- Cunningham, G. N. *See* Kuhn, D. T.
- Curie-Cohen, M. *See* Usinger, W. R., *et al.*
- CURIO, E., The ethology of predation, *book review* of, 157
- Currier, W. W., and G. A. Strobel: Chemotaxis of *Rhizobium spp.* to a glycoprotein produced by birdsfoot trefoil roots, 434
- Curtiss, R., III. *See* Maturin, L., Sr.
- Cushman, D. W. *See* Ondetti, M. A., *et al.*
- Cyclic GMP accumulation causes degeneration of photoreceptor cells: simulation of an inherited disease, R. N. Lolley *et al.*, 664
- Cytochrome c: immunofluorescent localization of the testis-specific form, E. Goldberg *et al.*, 1010

D

- Dahlman, D. L. *See* Rosenthal, G. A., *et al.*
- Dalterio, S., *et al.*: Cannabinoids inhibit testosterone secretion by mouse testes in vitro, 1472
- D'Arrigo, J. S. *See* Guillory, R. J., *et al.*
- Davidson, D. W. *See* Brown, J. H.
- Davidson, E. H. *See* Lee, A. S., *et al.* *See also* Scheller, R. H., *et al.*, page 197
- DAVIES, I. J. *See* NAFTOLIN, F., *et al.*
- Davies, R. E.: *book review* of Biomechanics and energetics of muscular exercise, 50
- Davis, D. J., *et al.*: Birth order and intellectual development: the confluence model in the light of cross-cultural evidence, 1470
- Davis, K. T., and A. Shearn: In vitro growth of imaginal disks from *Drosophila melanogaster*, 438
- Davis, R. W. *See* Benton, W. D. *See also* Cameron, J. R. *See also* Panasenko, S. M., *et al.*
- DAWKINS, R., The selfish gene, *book review* of, 757
- Dayton, P. K. *See* Tegner, M. J.
- Deakin, M. A. B. *See* Senechal, M., *et al.*
- DE BRABANDER, M. *See* BORGERS, M.
- Deep western boundary current in the eastern Indian Ocean, B. A. Warren, 53
- DeFries, J. C. *See* Plomin, R., *et al.*
- Degradation and detoxification of canavanine by a specialized seed predator, G. A. Rosenthal *et al.*, 658
- Degradation of DNA by nucleases in intestinal tract of rats, L. Maturin, Sr., and R. Curtiss III, 216
- DeLuca, H. F. *See* Horst, R. L., *et al.*
- Denervated skeletal muscle fibers develop discrete patches of high acetylcholine receptor density, P. K. Ko *et al.*, 540
- Denniston-Thompson, K. *See* Blattner, F. R., *et al.*
- Denver meeting: afterthoughts, The (*editorial*), W. D. Carey, 265
- Desert varnish: the importance of clay minerals, R. M. Potter and G. R. Rossman, 1446
- Design of specific inhibitors of angiotensin-converting enzyme: new class of orally active antihypertensive agents, M. A. Ondetti *et al.*, 441
- Determining the general circulation of the oceans: a preliminary discussion, C. Wunsch, 871
- Detritus-based food webs: exploitation by juvenile chum salmon (*Oncorhynchus keta*), J. Sibert *et al.*, 649
- Devon Island ice cap: core stratigraphy and paleoclimate, R. M. Koerner, 15
- DE VORE, I. *See* LEE, R. B.
- Di Chiara, G. *See* Spano, P. F., *et al.*
- Dickerson, R. E. *See* Scheller, R. H., *et al.*, page 177
- Diebold, G. J., and R. N. Zare: Laser fluorimetry: subpicogram detection of aflatoxins using high-pressure liquid chromatography, 1439
- Direct resorption of bone by human monocytes, G. R. Mundy *et al.*, 1109
- Discovery of the J particle, The: a personal recollection, S. C. C. Ting, 1167
- Discrete multivariate analysis, Y. M. M. BISHOP *et al.*, *book review* by I. Olkin, 156
- Distrust of nuclear power, The, C. Hohenemser *et al.*, 25
- Dodge, K. R. *See* Eisner, T., *et al.*
- Dorfman, R., and E. Cook: Social cost (*letters*), 940
- Dorus, E. *See* Koo, G. C., *et al.*
- Dosik, H. *See* Koo, G. C., *et al.*
- Doyle, J. J. *See* Hirumi, H., *et al.*
- Drachman, D. B. *See* Kao, I.
- Drug tolerance in biomembranes: a spin label study of the effects of ethanol, J. H. Chin and D. B. Goldstein, 684
- Dubé, D. *See* Pelletier, G., *et al.*
- Dubner, R. *See* Hayes, R., *et al.*
- Duchenne dystrophy: alteration in muscle plasma membrane structure, D. L. Schotland *et al.*, 1005

DUFFY, J., The healers, *book review of*, 864
 Duncan, H. *See* Morse, D. E., *et al.*
 Dust concentration in the atmosphere of the equatorial North Atlantic: possible relationship to the Sahelian drought, J. M. Prospero and R. T. Nees, 1196
 Dwight, S. A. *See* Nichols, W. W., *et al.*

E

Early chemical evolution of nucleic acids: a theoretical model, D. A. Usher, 311
 Early hydraulic civilization in Egypt, K. W. BUTZER, *book review by* C. E. Stearns, 971
 Earth as a seismic absorption band, The, D. L. Anderson *et al.*, 1104
 Easton, P. *See* John, E. R., *et al.*
 Echo-detecting characteristics of neurons in inferior colliculus of unanesthetized bats, G. Pollak *et al.*, 675
 Ecology and evolution of flowering plant dominance, P. J. Regal, 622
 EDGE, D. O., and M. J. MULKAY, Astronomy transformed, *book review of*, 774
Editorials: Alaskan oil, 13; The blind side of science policy, 1045; The Denver meeting: afterthoughts, 256; Energy conservation is not enough, 1159; Energy development in the Americas, 611; Intergovernmental science and technology, 943; International conferences and tax reform, 179; Office of Technology Assessment, 1391; Policy for ocean resource development, 383; The recombinant DNA debate, 127; Science and technology strategy for the LDC's, 837; Science and the future of the family, 487; Tropical medicine—new vigor, 1275
 Edsall, J. T.: *book review of* Reflections on biochemistry, 769
 Effects of *Escherichia coli* and yeast DNA insertions on the growth of lambda bacteriophage, The, J. R. Cameron and R. W. Davis, 212
 Eisenberg, D. *See* Baker, T. S., *et al.*
 Eisinger, F. *See* Baker, T. S., *et al.*
 Eisman, J. A. *See* Horst, R. L., *et al.*
 Eisner, T. *See* Brattsten, L. B., *et al.*
 Eisner, T., *et al.*: Stink of stinkpot turtle identified: ω -phenylalkanoic acids, 1347
 EK2 derivatives of bacteriophage lambda useful in the cloning of DNA from higher organisms: the λ gtWES system, P. Leder *et al.*, 175
 Elattar, A., *et al.*: Intermetallic compounds of the type MNi_5 as methanation catalysts, 1093
 Elemental sulfur: accumulation in different species of fungi, R. Pezet and V. Pont, 428
 ElGebaly, S. A. *See* Lee, K.-H., *et al.*
 Elk in the shrub-steppe region of Washington: an authentic record, W. H. Rickard *et al.*, 1009
 Elusive rise in the American birthrate, The, C. Gibson, 500
 Endothelial damage and thrombocyte adhesion in pigeon atherosclerosis, J. C. Lewis and B. A. Kottke, 1007
 Energy analysis (*letters*), M. Slessor *et al.*, 259
 Energy conservation is not enough (*editorial*), P. H. Abelson, 1159
 Energy development in the Americas (*editorial*), A. Orfila, 611
 Energy: the "soft path" (*letter*), A. B. Lovins, 1384
 Eneroth, P. *See* Fuxe, K., *et al.*
 Engel, G. L.: The need for a new medical model: a challenge for biomedicine, 129
 Enquist, L. *See* Leder, P., *et al.*
 Environmental asbestos pollution related to use of quarried serpentine rock, A. N. Rohl *et al.*, 1319
 Environmental task force report (*letter*), T. L. Kimball, 258
 Epstein, M. H., *et al.*: Cerebrospinal fluid production: stimulation by cholera toxin, 1012
 Erickson, R. O. *See* Maksymowych, R.
Erratum: for A. L. Hammond [195, 563

(1977)], 150; for G. B. Kolata (8 Apr., p. 144), 745; for W. D. Metz (1 Apr., p. 41), 150; for J. Salk and D. Salk [195, 834 (1977)], 150; for D. Shapley [195, 1311 (1977)], 745; for J. Walsh (15 Apr., p. 281), 745
 Erythema chronicum migrans and Lyme arthritis: cryoimmunoglobulins and clinical activity of skin and joints, A. C. Steere *et al.*, 1121
 Eschenmoser, A., and C. E. Wintner: Natural product synthesis and vitamin B₁₂, 1410
 Essex, M. *See* Sliski, A. H., *et al.*
 Estimate of the contribution of biologically produced dimethyl sulfide to the global sulfur cycle, P. J. Maroulis and A. R. Bandy, 647
 Estimating evaporation: difficulties of applicability in different environments, J. D. Kalma *et al.*, 1354
 Estradiol shortens the period of hamster circadian rhythms, L. P. Morin *et al.*, 305
 Ethology of predation, The, E. CURIO, *book review by* T. W. Schoener, 157
 Etzioni, A.: Science and the future of the family (*editorial*), 487
 Evidence for abnormal heart induction in cardiac-mutant salamanders (*Ambystoma mexicanum*), L. F. Lemanski *et al.*, 894
 Evidence for late Tertiary volcanic activity in the northern Black Hills, South Dakota, J. G. Kirchner, 977
 Evolution and the genetics of populations, S. WRIGHT, *book review by* F. J. Ayala, 1191
 Evolution and tinkering, F. Jacob, 1161
 Evolution, brain, and behavior, R. B. MASTERTON *et al.* (Eds.), *book review by* J. H. Kaas, 756
 Evolution, development, and children's learning, H. D. FISHBEIN (Ed.), *book review by* M. Konner, 1310
 Evolution of brain and behavior in vertebrates, R. B. MASTERTON *et al.* (Ed.), *book review by* J. H. Kaas, 756
 Evolution of the crystalline rocks, The, D. K. BAILEY and R. MACDONALD (Eds.), *book review by* D. S. Barker, 518
 Excavation of the Abri Pataud, H. L. MOVIUS, JR. (Ed.), *book review by* P. A. Mellars, 969
 Excision and recombination of adenovirus DNA fragments in *Escherichia coli*, M. Perricaudet *et al.*, 208
 Expanding earth, The, S. W. CAREY, *book review by* J. R. Heirtzler, 778
 Experimental allergic encephalomyelitis in Lewis rats: chemical synthesis of disease-inducing determinant, G. A. Hashim, 1219
 Experimental diabetes reduces circulating 1,25-dihydroxyvitamin D in the rat, L. E. Schneider *et al.*, 1452
 Experimental triggering of reproduction in a natural population of *Microtus montanus*, N. C. Negus and P. J. Berger, 1230

F

Faber, H. E. *See* Blattner, F. R., *et al.*
 FAGAN, M. D. (Ed.), A history of engineering and science in the Bell System, *book review of*, 49
 Fairbank, W. M., Jr.: *book review of* High-resolution laser spectroscopy, 973
 Fallat, R. J. *See* Glaser, C. B., *et al.*
 Fan, T. Y., *et al.*: N-nitrosodiethanolamine in synthetic cutting fluids: a part-per-hundred impurity, 70
 Fanslow, D. J. *See* Pizzi, W. J., *et al.*
 Farber, D. B. *See* Lolley, R. N., *et al.*
 Farrington, G. C. *See* Roth, W. L.
 FEATHERMAN, D. L. *See* SEWELL, W. H., *et al.*
 Feder, R. *See* Sayre, D., *et al.*
 Feldman, A. M. *See* Epstein, M. H., *et al.*
 Feline oncornavirus-associated cell membrane antigen: expression in transformed nonproducer mink cells, A. H. Sliski *et al.*, 1336
 Female-female pairing in western gulls (*Larus occidentalis*) in southern California, G. L. Hunt, Jr., and M. W. Hunt, 1466

Ferguson, E. S.: *book review of* Harpers Ferry Armory and the new technology, 1432
 Ferrari, T. E., and D. H. Wallace: Incompatibility on *Brassica stigma* is overcome by treating pollen with cycloheximide, 436
 Field, S. *See* Starr, C., *et al.*
 FIENBERG, S. E. *See* BISHOP, Y. M. M., *et al.*
 Fine, D. H. *See* Fan, T. Y., *et al.*
 Finney, B. R.: Voyaging canoes and the settlement of Polynesia, 1277
 FISHBEIN, H. D. (Ed.), Evolution, development and children's learning, *book review of*, 1310
 Fitzgerald, K. M. *See* Morin, L. P., *et al.*
 Fitzner, R. E. *See* Rickard, W. H., *et al.*
 Five hundredfold overproduction of DNA ligase after induction of a hybrid lambda lysogen constructed in vitro, S. M. Panasenkov *et al.*, 188
 Flannery, K. V.: *book review of* The valley of Mexico, 759
 Flavonoids and other chemical constituents of fossil Miocene *Zelkova* (ulmaceae), K. J. Niklas and D. E. Giannasi, 877
 Fleming, P. M. *See* Kalma, J. D., *et al.*
 Florensky, C. P., *et al.*: Geomorphic degradations on the surface of Venus: an analysis of Venera 9 and Venera 10 data, 869
 Forecasting climatic fluctuations: the winter of 1977 (*letter*), J. Namias, 1386
 Forget, B. G., *See* Wilson, J. T., *et al.*
 Forsythe, A. B. *See* Stern, E., *et al.*
 Fortescue, P.: Comparative breeding characteristics of fusion and fast reactors, 1326
 Fossils and progress, P. J. BOWLER, *book review by* S. J. Gould, 517
 Francisco, R. B. *See* Chen, J. R., *et al.*
 Freeman, A. R. *See* Kennedy, S. J., *et al.*
 Fried, S., *et al.*: Retention of plutonium and americium by rock, 1087
 FRIEDLAENDER, J. S., Patterns of human variation, *book review of*, 153
 Friedman, A. M. *See* Fried, S., *et al.*
 Friedman, M. I. *See* Stricker, E. M., *et al.*
 Fritsch, A. *See* Perricaudet, M., *et al.*
 From the psi to charm: the experiments of 1975 and 1976, B. Richter, 1286
 Fruchter, J. S. *See* Robertson, D. E., *et al.*
 Fukuda, J., and K. Kawa: Permeation of manganese, cadmium, zinc, and beryllium through calcium channels of an insect muscle membrane, 309
 Furlong, L.-A. *See* Blattner, F. R., *et al.*
 Fuxe, K., *et al.*: Prolactin-like immunoreactivity: localization in nerve terminals of rat hypothalamus, 899

G

Gaither, W. S.: Policy for ocean resource development (*editorial*), 383
 Galilean satellites of Jupiter: 12.6-centimeter radar observations, D. B. Campbell *et al.*, 650
 Galinat, W. C. *See* Zevallos M., C., *et al.*
 Galston, A. W.: *book review of* Herbicides, 419
 Ganges, R. G. *See* Miller, M. E.
 Garver, F. A., *et al.*: Radioimmunoassay for abnormal hemoglobins, 1334
 Gaskins, D. W., Jr., *et al.*: Uranium resources (*letters*), 600
 Gaston, L. K., *et al.*: Controlling the pink bollworm by disrupting sex pheromone communication between adult moths, 904
 Gating of neuronal transmission in the hippocampus: efficacy of transmission varies with behavioral state, J. Winson and C. Abzug, 1223
 Geertz, C. *See* Adams, R. N., *et al.*
 Geertz, H. *See* Adams, R. N., *et al.*
 GEHRELS, T. (Ed.), Jupiter, *book review of*, 153
 Gelboin, H. V. *See* Yang, S. K., *et al.*
 Gene cloning and containment properties of plasmid Col EI and its derivatives, K. A. Armstrong *et al.*, 172

- Genetic result of a lethal "null" activity allele of 6-phosphogluconate dehydrogenase in *Drosophila melanogaster*, M. B. Hughes and J. C. Lucchesi, 1114
- Genetics and biology of *Drosophila*, The, M. ASHBURNER and E. NOVITSKI (Eds.), *book review* by A. Chovnick, 290
- Geomagnetic disturbance and the orientation of nocturnally migrating birds, F. R. Moore, 682
- Geomorphic degradations on the surface of Venus: an analysis of Venera 9 and Venera 10 data, C. P. Florensky *et al.*, 869
- Geophysics of the Pacific Ocean basin and its margin, The, G. H. SUTTON *et al.* (Eds.), *book review* by P. Lonsdale, 519
- Gerson, I. *See* John, E. R., *et al.*
- Ghangas, G. S., and G. Milman: Hypoxanthine phosphoribosyltransferase: two-dimensional gels from normal and Lesch-Nyhan hemolyzates, 1119
- Ghiselin, M. T.: *book review* of The collected papers of Charles Darwin, 784
- Giannasi, D. E. *See* Niklas, K. J.
- Gibson, C.: The elusive rise in the American birthrate, 500
- Gillespie, C. M., Jr. *See* Kuhn, P., *et al.*
- Gillespie, D.: Newly evolved repeated DNA sequences in primates, 889
- Gingle, A. R., and A. Robertson: Morphologies of cells from 1-day chick embryos, 59
- Ginsburg, R. M.: *book review* of Stromatolites, 780
- Ginzton, E. L. *See* Brooks, H.
- Giordani, B. *See* Morrison, F. J., *et al.*
- Gjorup, H. L., and W. L. Boeck: Krypton-85 and atmospheric conductivity (*letters*), 380
- Glaser, C. B., *et al.*: Influence of cadmium on human alpha-1-antitrypsin: a reexamination, 556
- Glass, H. B.: Subcommittee on Infringements of Scientific Freedom (AAAS), 46
- Glass hydration: a method of dating glass objects, W. A. Lanford, 975
- Glende, E. A., Jr., *See* Roders, M. K., *et al.*
- Global age, The: roles of basic and applied research, W. D. McElroy, 267
- GM₁ ganglioside lysosomal storage disease in cats with β -hexosaminidase deficiency, L. C. Cork *et al.*, 1014
- Goins, N. R. *See* Toksöz, M. N., *et al.*
- Goldberg, E., *et al.*: Cytochrome c: immunofluorescent localization of the testis-specific form, 1010
- Golde, D. W., *et al.*: Growth hormone: species-specific stimulation of erythropoiesis in vitro, 1112
- GOLDMAN, R., *et al.* (Eds.), Cell motility, *book review* of, 773
- Goldstein, D. B. *See* Chin, J. H.
- Golomb, M.: Paul Erdős: addenda (*letter*), 938
- Gonder, M. D. *See* Mundy, G. R., *et al.*
- Gonzalez, N. L. *See* Adams, R. N., *et al.*
- Goodman, H. M. *See* Ullrich, A., *et al.*
- Gordon, A. S. *See* Naughton, B. A., *et al.*
- Gorecki, M. *See* Votano, J. R., *et al.*
- Gorman, A. L. F. *See* Thomas, M. V.
- Gould, S. J.: *book review* of Fossils and progress, 517
- Government-sponsored demonstrations of new technologies, W. S. Baer *et al.*, 950
- Grantham, R.: Long-sentence obscurantism? (*letter*), 1154
- Gravely, M. *See* Garver, F. A., *et al.*
- Great Lakes eutrophication: the effect of point source control of total phosphorus, S. C. Chapra and A. Robertson, 1448
- Greenbaum, E.: The photosynthetic unit of hydrogen evolution, 879
- Greene, A. E. *See* Nichols, W. W., *et al.*
- Growth hormone: species-specific stimulation of erythropoiesis in vitro, D. W. Golde *et al.*, 1112
- Grunwald, D. J. *See* Blattner, F. R., *et al.*
- Guernsey, D. L., and E. D. Stevens: The cell membrane sodium pump as a mechanism for increasing thermogenesis during cold acclimation in rats, 908
- Guillory, R. J., *et al.*: Covalent labeling of the tetrodotoxin receptor in excitable membranes, 883
- Gustafsson, J.-Å. *See* Fuxe, K., *et al.*
- Guthrie, J.: *book review* of Science textbook controversies and the politics of equal time, 752

H

- Haaland, C. M. *See* Wigner, E. P.
- Hadgraft, R. I. *See* Lee, K.-H., *et al.*
- Hale, J. *See* Crawford, G., *et al.*
- Halioua, M. *See* Stroke, G. W., *et al.*
- Hall, I. H. *See* Lee, K.-H., *et al.*
- Halpern, B. P. *See* Wiesenfeld, Z., *et al.*
- Halvorson, H. O.: ASM on recombinant DNA (*letter*), 1154
- Hamer, D. E.: Interbacterial transfer of *Escherichia coli*-*Drosophila melanogaster* recombinant plasmids, 220
- Hamer, D. H. *See* Szeto, W. W., *et al.*
- Hamilton, W. D.: *book review* of The selfish gene, 575
- Hammond, A. L. (*News and Comment*): "soft technology" energy debate, 959; (*Research News*): remote sensing, 511
- Hankins, T. L.: *book review* of The kind of motion we call heat, 783
- Happer, W.: *book review* of Atoms and molecules in electric fields, 867
- Hardin, J. A. *See* Steere, A. C., *et al.*
- Haring, J. R. *See* Gaskins, D. W., Jr., *et al.*
- Harke, B. A. *See* Sawyer, T. K., *et al.*
- Harmony, T. *See* John, E. R., *et al.*
- Harper, E. *See* Kuettner, K. E., *et al.*
- Harpers Ferry Armory and the new technology, M. R. SMITH (Ed.), *book review* by E. S. Ferguson, 1432
- Harshbarger, J. C. *See* Rose, F. L.
- Harshbarger, J. C., *et al.*: Chlamydiae (with phages), mycoplasmas, and rickettsiae in Chesapeake Bay bivalves, 666
- Hart, R. S. *See* Anderson, D. L., *et al.*
- Hart, S. R. *See* Chayes, F., *et al.*
- HARVEY, J. H., *et al.* (Eds.), New directions in attribution research, *book review* of, 765
- Hashim, G. A.: Experimental allergic encephalomyelitis in Lewis rats: chemical synthesis of disease-inducing determinant, 1219
- HAUCK, B., and P. C. KEENAN (Eds.), Abundance effects in classification, *book review* of, 777
- HAUSER, R. M. *See* SEWELL, W. H., *et al.*
- Hausler, M. R. *See* Schneider, L. E., *et al.*
- Hawkes, N. (*Science in Europe*): Benn and British rethink energy policy, 146; Carter nuclear policy finds few friends, 1067; low marks for high technology, 636
- Hawley, D. *See* Backman, K., *et al.*
- Hayden, J. A., *et al.*: Measuring plutonium concentrations in respirable dust, 1126
- Hayes, R., *et al.*: Naloxone antagonism as evidence for narcotic mechanisms (*letter*), 600
- Hays, B. D., *et al.*: Natural gas and Science paper (*letters*), 10
- Head capsule transmission of long-wavelength light in the Curculionidae, J. R. Meyer, 524
- Healers, The, J. DUFFY, *book review* by J. H. Young, 864
- Healey, M. C. *See* Sibert, J., *et al.*
- Heart: a target organ for estradiol, The, W. E. Stumpf *et al.*, 319
- Hecker, L. I. *See* Lomax, M. I., *et al.*
- Hedlund, J. D. *See* Rickard, W. H., *et al.*
- Heezen, B. C., and M. Rawson: Visual observations of the sea floor subduction line in the Middle-America Trench, 423
- Heichel, G. H.: *book review* of CO₂ metabolism and plant productivity, 1084
- Heilbron, J. L.: *book review* of Scientific elite, 754
- Heindell, H. C. *See* Liu, A. Y., *et al.*
- Heintzler, J. R.: *book review* of The expanding earth, 778
- Helinski, D. R. *See* Armstrong, K. A., *et al.*
- Heller, A. *See* Chang, K. C., *et al.*
- Helling, R. B. *See* Lomax, M. I., *et al.*
- Hemoglobin ontogenesis: test of the gene excision hypothesis, Th. Papayannopoulou *et al.*, 1215
- Hepatic regeneration and erythropoietin production in the rat, B. A. Naughton *et al.*, 301
- Hepler, P. K. *See* Zeiger, E.
- Herbicides, L. J. AUDUS (Ed.), *book review* by A. W. Galston, 419
- Herbivore-plant interactions: mixed-function oxidases and secondary plant substances, L. B. Brattsten *et al.*, 1349
- Hershfield, V. *See* Armstrong, K. A., *et al.*
- Heston, L. L.: Alzheimer's disease, trisomy 21, and myeloproliferative disorders: associations suggesting a genetic diathesis, 322
- Heteromorphic sex chromosomes in male rainbow trout, G. H. Thorgaard, 900
- Heyns, B.: *book review* of Schooling and achievement in American society, 763
- Hibernation and body weight in dormice: a new type of endogenous cycle, N. Mrosovsky, 902
- Hicks, K. *See* Eisner, T., *et al.*
- High rates of vertical crustal movement near Ventura, California, R. S. Yeats, 295
- High-resolution laser spectroscopy, K. SHIMODA (Ed.), *book review* by W. M. Fairbank, Jr., 973
- Hildebrand, J. G.: *book review* of The nervous system, 419
- Hill, B. C., *et al.*: Laser interferometer measurement of changes in crayfish axon diameter concurrent with action potential, 426
- Hill, C. S. *See* Lemanski, L. F., *et al.*
- Hilmen, M. *See* Zieg, J., *et al.*
- Hines, J. *See* Fried, S., *et al.*
- Hirumi, H., *et al.*: African trypanosomes: cultivation of animal-infective *Trypanosoma brucei* in vitro, 992
- Hirumi, K. *See* Hirumi, H., *et al.*
- History of engineering and science in the Bell System, A. M. D. FAGAN (Ed.), *book review* by K. Birr, 49
- Hiti, J. *See* Kuettner, K. E., *et al.*
- HODDER, I., and C. ORTON, Spatial analysis in archaeology, *book review* of, 972
- HODOS, W. *See* MASTERTON, R. B., W. HODOS, H. JERISON
- Hoffman, K. A.: Polarity transition records and the geomagnetic dynamo, 1329
- Hohenemser, C., *et al.*: The distrust of nuclear power, 25
- Höckfelt, T. *See* Fuxe, K., *et al.*
- Holden, C. (*News and Comment*): British science attaché attacks Toxic Substances Control Act, 1182; coal conversion methods of the Nazi period reviewed, 508; contract archeology, 1070; endangered species, 1426; heroin flow from Mexico unabated, 509; Laetlile battle continues unabated, 854; mollusc expert resists transfer, 1427; "Science for Citizens" program, 1423; Smithsonian and new federal scrutiny, 857
- HOLLAND, P. W. *See* BISHOP, Y. M. M., *et al.*
- Holley, T. L. *See* Beagley, W. K.
- Holley, W. R. *See* Muller, R. A., *et al.*
- Hollyfield, J. G. *See* Beshare, J. C., *et al.*
- See also* Lolley, R. N., *et al.*
- Holmes, K. K. *See* Crawford, G., *et al.*
- Holography and image display in x-ray crystallography (*letter*), G. W. Stroke *et al.*, 1040
- Homeostasis during hypoglycemia: central control of adrenal secretion and peripheral control of feeding, E. M. Stricker *et al.*, 79
- Hooker, N. *See* Morse, D. E., *et al.*
- HORECKER, B. L. *See* KORNBERG, A., *et al.*
- Horita, A. *See* Smith, J. R., *et al.*
- Hormone-induced cyclic guanosine monophosphate secretion from guinea pig pancreatic lobules, C. L. Kapoor and G. Krishna, 1003
- Horst, R. L., *et al.*: Adequate response of plasma 1,25-dihydroxyvitamin D to parturition in paretic (milk fever) dairy cows, 662
- Horwitz, K. B. *See* Zava, D. T., *et al.*
- Hotchin, J., and R. Buckley: Latent form of

- scrapie virus: a new factor in slow-virus disease, 668
- Hotchin, J., and R. Seegal: Virus-induced behavioral alteration of mice, 671
- HOTTEN, N. *See* MASTERTON, R. B., C. B. G. CAMPBELL, M. E. BITTERMAN, N. HOTTON
- Houck, J. C., *et al.*: Lymphocyte and fibroblast chalcones: some chemical properties, 896
- Howard, J. N.: *book review* of Optics of the atmosphere, 1084
- HOWSON, C. (Ed.), Method and appraisal in the physical sciences, *book review* of, 517
- Hoy, M. A.: Rapid response to selection for a nondispersing gypsy moth, 1462
- Huettner, D. A. *See* Slessner, M., *et al.*
- Huffaker, T. *See* Glaser, C. B., *et al.*
- Hughes, M. B., and J. C. Lucchesi: Genetic result of a lethal "null" activity allele of 6-phosphogluconate dehydrogenase in *Drosophila melanogaster*, 1114
- Huhey, J. E., and G. D. Ruggieri: Origin of Roman "royal purple" (*letters*), 262
- Huisman, T. H. J. *See* Garver, F. A., *et al.*
- Human breast cancer: biologically active estrogen receptor in the absence of estrogen?, D. T. Zava *et al.*, 663
- Human globin messenger RNA: importance of cloning for structural analysis, J. T. Wilson *et al.*, 200
- Humphrey, N. K.: *book review* of Intelligence in ape and man and Language learning by a chimpanzee, 755
- Hung, A. C. F., and S. B. Winson: Interspecific hybridization and caste specificity of protein in fire ant, 1458
- Hunt, C. *See* Houck, J. C., *et al.*
- Hunt, G. L., Jr., and M. W. Hunt: Female-female pairing in western gulls (*Larus occidentalis*) in southern California, 1466
- Hunt, M. W. *See* Hunt, G. L., Jr.
- Hussa, R. O. *See* Pattillo, R. A., *et al.*
- H-Y antigen: expression in human subjects with the testicular feminization syndrome, G. C. Koo *et al.*, 655
- Hybridization in situ of SV40 plaques: detection of recombinant SV40 virus carrying specific sequences of nonviral DNA, L. P. Villarreal and P. Berg, 183
- Hydrogen peroxide induces spawning in mollusks, with activation of prostaglandin endoperoxide synthetase, D. E. Morse *et al.*, 298
- Hypothalamic stimulation facilitates contralateral visual control of a learned response, W. K. Beagley and T. L. Holley, 321
- Hypoxanthine phosphoribosyltransferase: two-dimensional gels from normal and Lesch-Nyhan hemolyzates, G. S. Ghangas and G. Milman, 1119

I

- ICKES, W. J. *See* HARVEY, J. H., *et al.*
- Idso, S. B. *See* Kalma, J. D., *et al.*
- Idso, S. B., *et al.*: Remote-sensing of crop yields, 19
- In at the beginning, P. M. MORSE, *book review* by R. D. Richtmyer, 776
- Incompatibility on *Brassica* stigmas is overcome by treating pollen with cycloheximide, T. E. Ferrari and D. H. Wallace, 436
- Increase in conjugational transmission frequency of nonconjugative plasmids, N. J. Crisona and A. J. Clark, 186
- Increasing photosynthesis by inhibiting photorespiration with glyoxylate, D. J. Oliver and I. Zelitch, 1450
- Inflammatory effects of endotoxin-like contaminants in commonly used protein preparations, L. Z. Bito, 83
- Influence of cadmium on human alpha-1-antitrypsin: a reexamination, C. B. Glaser *et al.*, 556
- Infrared reflectance in leaf-sitting neotropical frogs, P. A. Schwalm *et al.*, 1225
- Insect development, P. A. LAWRENCE (Ed.), *book review* by S. J. Counce, 772

- Insecticide solvents: interference with insecticidal action, L. B. Brattsten and C. F. Wilkinson, 1211
- Intelligence in ape and man, D. PREMACK, *book review* by N. K. Humphrey, 755
- Interbacterial transfer of *Escherichia coli-Drosophila melanogaster* recombinant plasmids, D. E. Hamer, 220
- Intergovernmental science and technology (*editorial*), F. Press and G. Busbee, 943
- Intermetallic compounds of the type MNi₅ as methanation catalysts, A. Elattar *et al.*, 1093
- Internal calcium changes in a bursting pacemaker neuron measured with arsenazo III, M. V. Thomas and A. L. F. Gorman, 531
- International conferences and tax reform (*editorial*), L. M. Branscomb, 719
- Interspecific hybridization and caste specificity of protein in fire ant, A. C. F. Hung and S. B. Winson, 1458
- Interspersion of short repetitive sequences studied in cloned sea urchin DNA fragments, A. S. Lee *et al.*, 189
- In vitro growth of imaginal disks from *Drosophila melanogaster*, K. T. Davis and A. Shearn, 438
- Is Sweden more energy-efficient? (*letters*), C. Starr *et al.*, 121
- Itakura, K. *See* Scheller, R. H., *et al.*, page 177

J

- Jackson, R. D. *See* Kalma, J. D., *et al.* *See also* Idso, S. B., *et al.*
- Jacob, F.: Evolution and tinkering, 1161
- James, D. E. *See* Chayes, F., *et al.*
- Janzen, D. H. *See* Rosenthal, G. A., *et al.*
- Jenkins, W. J.: Tritium-helium dating in the Sargasso Sea: a measurement of oxygen utilization rates, 291
- JENKNER, H. *See* WEISS, W. W., *et al.*
- Jensen's AAAS fellowship (*letters*), W. J. McKeachie *et al.*, 831
- JERISON, H. *See* MASTERTON, R. B., W. HODOS, H. JERISON
- John, E. R., *et al.*: Neurometrics, 1393
- John, M. *See* John, E. R., *et al.*
- Johnson, C. J. *See* Hayden, J. A., *et al.*
- Johnson, C. K.: Will holography revolutionize crystallography? (*letter*), 478
- Johnson, L. L. *See* Baer, W. S., *et al.*
- JOHNSON, L. N. *See* BLUNDELL, T. L.
- Johnson, P. F. *See* Beckmann, J. S., *et al.*
- Jones, C. S. *See* Garver, F. A., *et al.*
- Jones, T. H. *See* Eisner, T., *et al.*
- Jorgensen, N. A. *See* Horst, R. L., *et al.*
- Jupiter, T. GEHRELS (Ed.), *book review* by J. W. Warwick, 153

K

- Kaae, R. S. *See* Gaston, L. K., *et al.*
- Kass, J. H.: *book review* of Evolution, brain, and behavior and Evolution of brain and behavior in vertebrates, 756
- Kac, M., and S. I. Rubinow: Probability of the Pittsburgh deaths (*letter*), 480
- Kaiser, K. L. E., and J. Lawrence: Polyelectrolytes: potential chloroform precursors, 1205
- Kakar, R. K., *et al.*: Mars: microwave detection of carbon monoxide, 1090
- Kalahari hunter-gatherers, R. B. LEE and I. DE VORE (Eds.), *book review* by B. J. Williams, 761
- Kalma, J. D., *et al.*: Estimating evaporation: difficulties of applicability in different environments, 1354
- Kanagalingam, K. *See* Houck, J. C., *et al.*
- Kanamori, H. *See* Anderson, D. L., *et al.*
- Kane, R. E.: *book review* of Cell motility, 773
- Kao, I., and D. B. Drachman: Myasthenic immunoglobulin accelerates acetylcholine receptor degradation, 527
- Kaper, J. M., and H. E. Waterworth: Cucumber mosaic virus associated RNA 5: causal agent for tomato necrosis, 429

- Kaplan, S. M. *See* Naughton, B. A., *et al.*
- Kapoor, C. L., and G. Krishna: Hormone-induced cyclic guanosine monophosphate secretion from guinea pig pancreatic lobules, 1003
- Karic, L. *See* Glaser, C. B., *et al.*
- Karmel, B. Z. *See* John, E. R., *et al.*
- Kashiwagi, M. *See* Mynderse, J. S., *et al.*
- Kask, B. A. *See* Sibert, J., *et al.*
- Kasperson, R. *See* Hohenemser, C., *et al.*
- Kastin, A. J. *See* Walker, J. M., *et al.*
- Kates, R. *See* Hohenemser, C., *et al.*
- Katz, J. L., *et al.*: Nucleation on photoexcited molecules, 1203
- Kawa, K. *See* Fukuda, J.
- Kaye, H. *See* John, E. R., *et al.*
- Keating, K. I.: Allelopathic influence on blue-green bloom sequence in a eutrophic lake, 885
- KEENAN, P. C. *See* HAUCK, B.
- Kendall, F., *et al.*: Nuclear morphometry during the cell cycle, 1106
- Kennedy, E. R. *See* McKeachie, W. J., *et al.*
- Kennedy, S. J., *et al.*: Synthetic peptides form ion channels in artificial lipid bilayer membranes, 1341
- Kennett, J. P., and R. C. Thunell: On explosive Cenozoic volcanism and climatic implications, 1231
- Kenny, J. T., and E. M. Blass: Suckling as incentive to instrumental learning in preweanling rats, 898
- "Kerfuffle" (*letter*), F. M. McMillan, 1041
- Kevles, D. J.: *book review* of Astronomy transformed, 774
- Keyes, R. W.: Microstructure fabrication, 945
- KIDD, R. F. *See* HARVEY, J. H. *et al.*
- Kiefer, D. O. *See* Blattner, F. R., *et al.*
- Kim, D. M. *See* Sayre, D., *et al.*
- Kimball, T. L.: Environmental task force report (*letter*), 258
- Kind of motion we call heat, The, S. G. BRUSH, *book review* by T. L. Hankins, 783
- King, G. I. *See* Blaurock, A. E.
- Kirchner, J. G.: Evidence for late Tertiary volcanic activity in the northern Black Hills, South Dakota, 977
- Kirz, J. *See* Sayre, D., *et al.*
- Kitcher, P.: *book review* of Proofs and refutations, 782
- Klein, W. H. *See* Scheller, R. H., *et al.*, page 197
- Klumpp, K. M. *See* Zavallos M., C., *et al.*
- Knapp, J. S. *See* Crawford, G., *et al.*
- Ko, P. K., *et al.*: Denervated skeletal muscle fibers develop discrete patches of high acetylcholine receptor density, 540
- Koerner, R. M.: Devon Island ice cap: core stratigraphy and paleoclimate, 15
- Kolata, G. B. (*News and Comment*): mathematician Paul Erdős, 144 (*erratum*, 745); (*Research News*): animal viruses, 417; Calabi conjecture, 1308; catastrophe theory, 287; hormone receptor regulation, 747; overlapping genes, 1187
- Konner, M.: *book review* of Evolution, development, and children's learning, 1310
- Koo, G. C., *et al.*: H-Y antigen: expression in human subjects with the testicular feminization syndrome, 655
- KORNBERG, A., *et al.* (Eds.), Reflections on biochemistry, *book review* of, 769
- Koshland, D. E., Jr.: A response regulator model in a simple sensory system, 1055
- Kottke, B. A. *See* Lewis, J. C.
- Kourilsky, P.: Use of isolators in recombinant DNA research, 215
- Krakauer, R. S., *et al.*: Prevention of autoimmunity in experimental lupus erythematosus by soluble immune response suppressor, 56
- Krass, A. S.: Laser enrichment of uranium: the proliferation connection, 721
- Kreutzberg, J. R. *See* Clark, D. L., *et al.*
- Krishna, G. *See* Kapoor, C. L.
- Krypton-85 and atmospheric conductivity (*letters*), H. L. Gjörup and W. L. Boeck, 380
- Kuettner, K. E., *et al.*: Tumor cell collagenase and its inhibition by a cartilage-derived protease inhibitor, 653

- Kuhn, D. T., and G. N. Cunningham: Aldehyde oxidase compartmentalization in *Drosophila melanogaster* wing imaginal disks, 875
- Kuhn, P., et al.: Clear air turbulence: detection by infrared observations of water vapor, 1099
- Kuiper, T. B. H., and M. Morris: Searching for extraterrestrial civilizations, 616
- Kuwabara, T. See Sakuragawa, N., et al.

L

- Labeling theory (letters), J. M. Townsend et al., 480
- La Hann, T. R. See Smith, J. R., et al.
- LAKATOS, I., Proofs and refutations, book review of, 782
- Lake, C. R., and M. G. Ziegler: Lesch-Nyhan syndrome: low dopamine- β -hydroxylase activity and diminished sympathetic response to stress and posture, 905
- Lakoff, S. A.: book review of A minor miracle, 750
- Lanford, W. A.: Glass hydration: a method of dating glass objects, 975
- Landsberg, L. See Young, J. B.
- Lang, S. B., and H. Athenstaedt: Pyroelectricity and induced pyroelectric polarization in leaves of the palmlike plant *Encephalartos villosus*, 985
- Langer, A. M. See Rohl, A. N., et al.
- Language learning by a chimpanzee, D. M. RUMBAUGH (Ed.), book review by N. K. Humphrey, 755
- Larsen, C. W.: The Smithsonian: fact and hearsay (letter), 1152
- Laser enrichment of uranium: the proliferation connection, A. S. Krass, 721
- Laser fluorimetry: subpicogram detection of aflatoxins using high-pressure liquid chromatography, G. J. Diebold and R. N. Zare, 1439
- Laser interferometer measurement of changes in crayfish axon diameter concurrent with action potential, B. C. Hill et al., 426
- LAST, F. T. See CANNELL, M. G. R.
- Latent form of scrapie virus: a new factor in slow-virus disease, J. Hotchin and R. Buckley, 668
- Lathrap, D. W. See Zavallos M., C., et al.
- Laudan, L.: book review of Method and appraisal in the physical sciences, 517
- Lawrence, J. See Kaiser, K. L. E.
- LAWRENCE, P. A. (Ed.), Insect development, book review of, 772
- Leder, P., et al.: EK2 derivatives of bacteriophage lambda useful in the cloning of DNA from higher organisms, the λ gtWES system, 175
- Lee, A. S. See Scheller, R. H., et al., page 197
- Lee, A. S., et al.: Interspersion of short repetitive sequences studied in cloned sea urchin DNA fragments, 189
- Lee, K.-H., et al.: Sesquiterpene antitumor agents: inhibitors of cellular metabolism, 533
- LEE, R. B., and I. DE VORE (Eds.), Kalahari hunter-gatherers, book review of, 761
- Legion of night. T. D. SARGENT, book review by J. A. Powell, 288
- Legionnaires' disease: nickel levels, J. R. Chen et al., 906
- Lehman, I. R. See Panasenkov, S. M., et al.
- Leidahl, L. C. See Moltz, H.
- Lemanski, L. F., et al.: Evidence for abnormal heart induction in cardiac-mutant salamanders (*Ambystoma mexicanum*), 894
- Leng, E. R. See Zavallos M., C., et al.
- Lens cataract formation and reversible alteration in crystallin synthesis in cultured lenses, J. Piatigorsky and T. Shinohara, 1345
- Lepper, M. R.: book review of New directions in attribution research, 765
- Leroy, J.-F.: A compound ovary with open carpels in Winteraceae (magnoliales): evolutionary implications, 977
- Lesch-Nyhan syndrome: low-dopamine- β -hy-

- droxylase activity and diminished sympathetic response to stress and posture, C. R. Lake and M. G. Ziegler, 905
- Leutz, J. C. See Yang, S. K., et al.
- Levin, B. R., and F. M. Stewart: Probability of establishing chimeric plasmids in natural populations of bacteria, 218
- Levodopa, fertility, and longevity, G. C. Cotzias et al., 549
- Lewis, J. C., and B. A. Kottke: Endothelial damage and thrombocyte adhesion in pigeon atherosclerosis, 1007
- Lewis, M. See Senechal, M., et al.
- Li, C. H. See Golde, D. W., et al.
- Lichtenberg, A. J. See Starr, C., et al.
- Licking behavior: evidence of hypoglossal oscillator, Z. Wiesenfeld et al., 1122
- Lieberman, M. A. See Gaskins, D. W., Jr., et al.
- Light and stomatal function: blue light stimulates swelling of guard cell protoplasts, E. Zeiger and P. K. Hepler, 887
- Lijinsky, W. See Sansone, E. B.
- Likens, G. E. See Bormann, F. H., et al.
- Lipscomb, W. N.: The boranes and their relatives, 1047
- Lithium ion entry through the sodium channel of cultured mouse neuroblastoma cells: a biochemical study, E. Richelson, 1001
- Lithium-sodium beta alumina: first of a family of co-ionic conductors?, W. L. Roth and G. C. Farrington, 1332
- Liu, A. Y., et al.: Nucleotide sequences from a rabbit alpha globin gene inserted in a chimeric plasmid, 192
- Liu, H.-P. See Anderson, D. L., et al.
- Local mate competition and parental investment in social insects, R. D. Alexander and P. W. Sherman, 494
- Localization of nigral dopamine-sensitive adenylate cyclase on neurons originating from the corpus striatum, P. F. Spano et al., 1343
- Lolley, R. N., et al.: Cyclic GMP accumulation causes degeneration of photoreceptor cells: simulation of an inherited disease, 664
- LOMASK, M., A minor miracle, book review of, 750
- Lomax, M. I., et al.: Cloned ribosomal RNA genes from chloroplasts of *Euglena gracilis*, 202
- Lombardi, J. R., and J. G. Vandenberg: Pheromonally induced sexual maturation in females: regulation by the social environment of the male, 545
- Long-sentence obscurantism? (letter), R. Grantham, 1154
- Lonsdale, P.: book review of The geophysics of the Pacific Ocean basin and its margin, 519
- Lorenz, M. D. See Cork, L. C., et al.
- Louria, D. B. See Glaser, C. B., et al.
- Lovins, A. B.: Energy: the "soft path" (letter), 1384
- Low-level radiation: predicting the effects (letter), B. Wolfe, 1387
- Lubell, D.: The Caspian escargotières: a clarification, 335
- Lucchesi, J. C. See Hughes, M. B.
- Ludwick, J. D. See Robertson, D. E., et al.
- Luminous bacterium that emits yellow light, A. E. G. Ruby and K. H. Neelson, 432
- Lundell, L. L. See Adams, J. A. S., et al.
- LURIA, A. R., Cognitive development, book review of, 767
- Lutsemberger, L. See Cangiano, A.
- Lymphocyte and fibroblast chalcones: some chemical properties, J. C. Houck et al., 896
- Lymphocyte-defined loci in cattle, W. R. Usinger et al., 1017
- MACDONALD, R. See BAILEY, D. K.
- Mahoney, M. S.: book review of The mathematical papers of Isaac Newton, 864
- Major innervation of newborn rat cortex by monoaminergic neurons, J. T. Coyle and M. E. Molliver, 444
- Maksymowych, R., and R. O. Erickson:

- Phyllotaxis in *Xanthium* shoots altered by gibberellic acid, 1201
- Malaria vaccines (letter), P. H. Silverman, 1156
- Malawista, S. E. See Steere, A. C., et al.
- Malin, M. C., and R. S. Saunders: Surface of Venus: evidence of diverse landforms from radar observations, 987
- Mallya, A. See Volavka, J., et al.
- MANGHNANI, M. H. See SUTTON, G. H., et al.
- Mantovani, M. S. M. See Adams, J. A. S., et al.
- Mar, E.-C. See Lee, K.-H., et al.
- Marc, R. E., and H. G. Sperling: Chromatic organization of primate cones, 454
- Marcos, J. G. See Zavallos M., C., et al.
- Marczynska, B. See Kuettner, K. E., et al.
- MARGARIA, R., Biomechanics and energetics of muscular exercise, book review of, 50
- Margoliash, E. See Goldberg, E., et al.
- Marine sediment transport and environmental management, D. J. STANLEY and D. J. P. SWIFT (Eds.), book review by R. H. Meade, 420
- Marlar, R. J. See Bushnell, P. J., et al.
- Maroulis, P. J., and A. R. Bandy: Estimate of the contribution of biologically produced dimethyl sulfide to the global sulfur cycle, 647
- Marquardt, H., et al.: Mutagenic activity of nitrite-treated foods: human stomach cancer may be related to dietary factors, 1000
- Mars: microwave detection of carbon monoxide, R. K. Kakar et al., 1090
- Marsh, D. See Pollak, G., et al.
- Marx, B. S. See Lemanski, L. F., et al.
- Marx, J. L. (Research News): aspirin and heart attacks, 1075; blood clotting, 1072; carbon tetrachloride in drinking water, 632; lectins and recognition processes, 1429; nitrogen fixation and genetic manipulation, 638; persistent infections and viruses, 151
- MASTERTON, R. B., C. B. G. CAMPBELL, M. E. BITTERMAN, N. HOTTON (Eds.), Evolution of brain and behavior in vertebrates, book review of, 756
- MASTERTON, R. B., W. HODOS, H. JERISON (Eds.), Evolution, brain, and behavior, book review of, 756
- Mathematical bioeconomics, C. W. CLARK, book review by G. R. Conway, 1082
- Mathematical papers of Isaac Newton, The, D. T. WHITESIDE (Ed.), book review by M. S. Mahoney, 864
- Mattingly, R. F. See Pattillo, R. A., et al.
- Maturin, L., Sr., and R. Curtiss III: Degradation of DNA by nucleases in intestinal tract of rats, 216
- Maugh, T. H., II (Research News): guayule and jojoba agriculture, 1189; malaria and its resurgence in research, 413; wine and a virus, 1074
- MAY, R. M. (Ed.), Theoretical ecology, book review of, 51
- Maybury-Lewis, D., See Adams, R. N., et al.
- Mayer, M. V.: The Smithsonian under scrutiny (letter), 1385
- McCain, T. See Schneider, L. E., et al.
- McCallum, W. C. See Cooper, R., et al.
- MC CARTNEY, E. J., Optics of the atmosphere, book review of, 1084
- McClements, W., and A. M. Skalka: Analysis of chicken ribosomal RNA genes and construction of lambda hybrids containing gene fragments, 195
- McCourt, D. W. See Yang, S. K., et al.
- McDiarmid, R. W. See Schwalm, P. A., et al.
- McElroy, W. D.: The global age: roles of basic and applied research, 267
- McGinty, D. J. See Siegel, J. M.
- McGuire, T. C. See Papayannopoulou, Th., et al.
- McGuire, W. L. See Zava, D. T., et al.
- McIlroy, W. J., and J. R. Wherrett: Myelin basic protein: clinical trials (letter), 600
- McKeachie, W. J., et al.: Jensen's AAAS fellowship (letters), 831
- McKeon, G. M. See Kalma, J. D., et al.
- McKusick, V. A., and F. H. Ruddle: The status of the gene map of the human chromosomes, 390

M

- McLaughlin, T. *See* Katz, J. L., *et al.*
 McMillan, F. M.: "Kerfuffle" (*letter*), 1041
 Meade, R. H.: *book review* of Marine sediment transport and environmental management, 420
 Measuring plutonium concentrations in respirable dust, J. A. Hayden *et al.*, 1126
 Mechanisms of mineralization in the invertebrates and plants, The, N. WATABE and K. M. WILBUR (Eds.), *book review* by K. M. Towe, 1311
 Meinwald, J. *See* Eisner, T., *et al.*
 Melchior, C. L. *See* Myers, R. D.
 Melillo, J. M. *See* Bormann, F. H., *et al.*
 Mellars, P. A.: *book review* of Excavation of the Abri Pataud, 969
 Membrane currents examined under voltage clamp in cultured neuroblastoma cells, W. H. Moolenaar and I. Spector, 331
 Menezes, S. *See* Chang, K. C., *et al.*
 Mentally retarded and society, The, M. J. BEGAB and S. A. RICHARDSON (Eds.), *book review* by E. Zigler, 1192
 Mercury emissions from geothermal power plants, D. E. Robertson *et al.*, 1094
 Merrow, E. W. *See* Baer, W. S., *et al.*
 Meteorite impact crater discovered in central Alaska with Landsat imagery, P. J. Cannon, 1322
 Method and appraisal in the physical sciences, C. HOWSON (Ed.), *book review* by L. Laudan, 517
 Metz, W. D. (*News and Comment*): Carter's plutonium policy, 405; Ford-MITRE and nuclear power study, 41 (*erratum*, 150); (*Research News*): Canadian disposal of spent fuel, 286; nuclear fuel reprocessing, 43, 284; quarks and hints of two from Stanford, 746
 Meyer, C. *See* Sliski, A. H., *et al.*
 Meyer, J. R.: Head capsule transmission of long-wavelength light in the Curculionidae, 524
 Michelson, R. P. *See* Hill, B. C., *et al.*
 Microstructure fabrication, R. W. Keyes, 945
 Microtubules and microtubule inhibitors, M. BORBERS and M. DE BRABANDER (Eds.), *book review* by J. B. Olmsted, 421
 Miles, W. *See* Fan, T. Y., *et al.*
 Miller, B. *See* Chang, K. C., *et al.*
 Miller, M. E., and R. G. Ganges: Serum complement-like opsonic activities in human, animal, vegetable, and proprietary milks, 1115
 Miller, S. T. *See* Cotzias, G. C., *et al.*
 Miller, T. E. *See* Chen, J. R., *et al.*
 Milman, G. *See* Ghangas, G. S.
 Milner, P. M. *See* Beninger, R. J., *et al.*
 Minners, H. A.: Tropical medicine—new vigor (*editorial*), 1275
 Minor miracle, A. M. LOMASK, *book review* by S. A. Lakoff, 750
 Mislivec, P. *See* Stoloff, L., *et al.*
 Mitchison, G. J.: Phyllotaxis and the Fibonacci series, 270
 Moe, R. L., and P. C. Silva: Antarctic marine flora: uniquely devoid of kelps, 1206
 Molecular metal clusters, E. L. Muetterties, 839
 Molliver, M. E. *See* Coyle, J. T.
 Moltz, H., and L. C. Leidahl: Bile, prolactin, and the maternal pheromone, 81
 Monjan, A. A., and M. I. Collector: Stress-induced modulation of the immune response, 307
 Monomeric forms of the acid ionophore lasalocid A (X-537A) from polar solvents, C. C. Chiang and I. C. Paul, 1441
 Monosodium glutamate administration to the newborn reduces reproductive ability in female and male mice, W. J. Pizzi *et al.*, 452
 Montgomery, M. E. *See* Bowers, W. S., *et al.*
 Moolenaar, W. H., and I. Spector: Membrane currents examined under voltage clamp in cultured neuroblastoma cells, 331
 Moonquakes: mechanisms and relation to tidal stresses, M. N. Toksöz *et al.*, 979
 Moore, D. D. *See* Blattner, F. R., *et al.*
 Moore, F. R.: Geomagnetic disturbance and the orientation of nocturnally migrating birds, 682
 Moore, R. E. *See* Mynderse, J. S., *et al.*
 Morgan, J. M., and A. Routtenberg: Angiotensin injected into the neostriatum after learning disrupts retention performance, 87
 Morgan-Jones, G. *See* Stoloff, L., *et al.*
 Morin, L. P., *et al.*: Estradiol shortens the period of hamster circadian rhythms, 305
 Morphologies of cells from 1-day chick embryos, A. R. Gingle and A. Robertson, 59
 Morphology and biology of reptiles, A. D'A. BELLAIRS and C. B. COX (Eds.), *book review* by D. B. Wake, 866
 Morris, M. *See* Kuiper, T. B. H.
 Morrison, F. J., *et al.*: Reading disability: an information-processing analysis, 77
 Morrison, J. *See* Fan, T. Y., *et al.*
 Morse, A. *See* Morse, D. E., *et al.*
 Morse, D. E., *et al.*: Hydrogen peroxide induces spawning in mollusks, with activation of prostaglandin endoperoxide synthetase, 298
 MORSE, P. M., In at the beginning, *book review* of, 776
 Moses, M. J., *et al.*: Mouse chromosome translocations: visualization and analysis by electron microscopy of the synaptonemal complex, 892
 Motor vehicle fatalities increase just after publicized suicide stories, D. P. Phillips, 1464
 Mouse chromosome translocations: visualization and analysis by electron microscopy of the synaptonemal complex, M. J. Moses *et al.*, 892
 MOVIUS, H. L., JR. (Ed.), Excavation of the Abri Pataud, *book review* of, 969
 Mrosovsky, N.: Hibernation and body weight in dormice: a new type of endogenous cycle, 902
 Muetterties, E. L.: Molecular metal clusters, 839
 MULKAY, M. J. *See* EDGE, D. O.
 Muller, R. A.: Radioisotope dating with a cyclotron, 489
 Muller, R. A., *et al.*: Quarks with unit charge: a search for anomalous hydrogen, 521
 Mundy, G. R., *et al.*: Direct resorption of bone by human monocytes, 1109
 Munnell, J. F. *See* Cork, L. C., *et al.*
 Murphy, D. G. *See* Nichols, W. W., *et al.*
 Murphy, J. M. *See* Townsend, J. M., *et al.*
 Murphy, J. V. *See* Cork, L. C., *et al.*
 Mutagenic activity of nitrite-treated foods: human stomach cancer may be related to dietary factors, H. Marquardt *et al.*, 1000
 Myasthenic immunoglobulin accelerates acetylcholine receptor degradation, I. Kao and D. B. Drachman, 527
 Myelin basic protein: clinical trials (*letter*), W. J. McIlroy and J. R. Wherrett, 600
 Myers, R. D., and C. L. Melchior: Alcohol drinking: abnormal intake caused by tetrahydropapaveroline in brain, 554
 Mynderse, J. S., *et al.*: Antileukemia activity in the oscillatoriaceae: isolation of debromoplysiatoxin from *Lyngbya*, 538
- N**
- NAFTOLIN, F., *et al.* (Eds.), Subcellular mechanisms in reproductive neuroendocrinology, *book review* of, 1194
 Nagy, J. *See* Morrison, F. J., *et al.*
 Naiman, R. J. *See* Sibert, J., *et al.*
 Naloxone antagonism as evidence for narcotic mechanisms (*letter*), R. Hayes *et al.*, 600
 Naloxone in chronic schizophrenia, J. Volavka *et al.*, 1227
 Namias, J.: Forecasting climatic fluctuations: the winter of 1977 (*letter*), 1386
 Natural gas and *Science* paper (*letters*), B. D. Hays *et al.*, 10
 Natural product synthesis and vitamin B₁₂, A. Eschenmoser and C. E. Wintner, 1410
 Naughton, B. A., *et al.*: Hepatic regeneration and erythropoietin production in the rat, 301
 Nault, L. R. *See* Bowers, W. S., *et al.*
 Nealson, K. H. *See* Ruby, E. G.
- Need for a new medical model, The: a challenge for biomedicine, G. L. Engel, 129
 NEEDHAM, J., Science and civilisation in China, vol. 5, *book review* of, 155
 Nees, R. T. *See* Prospero, J. M.
 Negus, N. C., and P. J. Berger: Experimental triggering of reproduction in a natural population of *Microtus montanus*, 1230
 NELKIN, D., Science textbook controversies and the politics of equal time, *book review* of, 752
 Nelson, P. G. *See* Christian, C. N., *et al.*
 Neoplastic and possibly related skin lesions in neotenic tiger salamanders from a sewage lagoon, F. L. Rose and J. C. Harshbarger, 315
 Nervous system, The, D. B. TOWER (Ed.), *book review* by J. G. Hildebrand, 419
 Neurometrics, E. R. John *et al.*, 1393
 New directions in attribution research, J. H. HARVEY *et al.* (Eds.), *book review* by M. R. Lepper, 765
 New, M. I. *See* Koo, G. C., *et al.*
 NEWELL, R. C. (Ed.), Adaptation to environment, *book review* of, 644
 Newly evolved repeated DNA sequences in primates, D. Gillespie, 889
News and Comment: academics and disclosure policies, 37; Alaskan gas, 1068; Andrus at Department of Interior, 507; arms control impact statements, 1181; assistant secretary for health, 148, 635, 739; Atkinson and National Science Foundation, 145; Bergland and research at Department of Agriculture, 506; bishops keep tabs on science, 1180; British science attaché attacks Toxic Substances Control Act, 1182; carbon tetrachloride in drinking water, 632; Carter's plutonium policy, 405; coal conversion methods of Nazi period reviewed, 508; contract archeology, 1070; Daddario resigns from the Office of Technology Assessment, 1066; drinking water, 1421; drugs in animal feeds to be limited, 510; election process at National Academy of Sciences, 738; endangered species, 1426; energy message by Carter, 630; Energy Research and Development Administration laboratories, 743; environment high on Carter agenda, 1065; environmentalist Cutler at Department of Agriculture, 505; Ford-MITRE nuclear power study, 41 (*erratum*, 150); the handicapped and science, 1424; heroin flow from Mexico continues, 509; industrial researchers and NSF grants, 142; krill problem in the Antarctic, 503; Laetrile battle continues unabated, 854; lobbying rules for nonprofits, 40; mammography and National Cancer Institute, 853; mathematician Paul Erdős, 144 (*erratum*, 745); military medical schools rescued, 742; missile accuracies, 1185; mollusc expert resists transfer, 1427; National Academy of Engineers elects new members, 633; National Academy of Sciences elects new members, 740; National Cancer Institute directorship, 635; ocean mining and former negotiator, 964; oppressed scientists and NAS, 741; particle beams as ABM weapons, 407; peer review process, 149; physics in Argentina, 1302; polio vaccine safety, 35; Press as science adviser, 38, 412, 742, 1300; public interest lawyers, 961; recombinant DNA, 39, 406; Russian beam weapon debate, 957; saccharin, 276, 1179; science agreements for the U.S.S.R. and the United States, 1064; science and technology at Department of State, 148; "Science for Citizens" program, 1423; scientists in space, 635; smallpox, 1298; Smithsonian and federal scrutiny, 857; "soft technology" energy debate, 959; soil erosion, 409; Solar Energy Research Institute, 278; space chief nominee and "good science", 1301; Stanford faculty members in Washington, 631; "The State of Academic Science: The Universities in the Nation's Research Effort," 1184; Stevens Institute of Technology, 280 (*erratum*, 745); Swedish approach to energy, 856; Warnke and verification task, 859; water projects dispute, 1303

- Newton, P. *See* Cooper, R., *et al.*
 Nichols, W. W., *et al.*: Characterization of a new human diploid cell strain, 60
 Nicolini, C. *See* Kendall, F., *et al.*
 Nielson, M. W. *See* Bowers, W. S., *et al.*
 Niemann-Pick disease experimental model: sphingomyelinase reduction induced by AY-9944, N. Sakuragawa *et al.*, 317
 Nienhuis, A. *See* Benz, E., Jr., *et al.*
 Niklas, K. J., and D. E. Giannasi: Flavonoids and other chemical constituents of fossil Miocene *Zelkova* (ulmaceae), 877
 Niles, W. D. *See* Scheller, R. H., *et al.*, page 197
 Nirenberg, M. *See* Christian, C. N., *et al.*
 Nishino, C. *See* Bowers, W. S., *et al.*
 Nitrogen budget for an aggrading northern hardwood forest ecosystem, F. H. Bormann *et al.*, 981
 N-nitrosodiethanolamine in synthetic cutting fluids: a part-per-hundred impurity, T. Y. Fan *et al.*, 70
 Nokes, M. A. *See* Hill, B. C., *et al.*
 Norman, R. J., *et al.*: Classical conditioning with auditory discrimination of the eye blink in decerebrate cats, 551
 North Atlantic ice-rafting: a major change at 75,000 years before the present, W. F. Ruddiman, 1208
 Norton, T. R. *See* Mynderse, J. S., *et al.*
 NOVITSKI, E. *See* ASHBURNER, M.
 Nuclear morphometry during the cell cycle, F. Kendall *et al.*, 1106
 Nuclear waste management (*letters*), M. Resnikoff and R. O. Pohl, 714
 Nucleation on photoexcited molecules, J. L. Katz *et al.*, 1203
 Nucleotide sequences from a rabbit alpha globin gene inserted in a chimeric plasmid, A. Y. Liu *et al.*, 192
 Nute, P. E. *See* Papayannopoulou, Th., *et al.*

O

- Odum, H. T. *See* Slessor, M., *et al.*
 Office of Technology Assessment (*editorial*), P. H. Abelson, 1391
 Oil spills: effects of petroleum on marine organisms (*letter*), J. F. Payne, 10
 Olah, J. *See* Patterson, M. M., *et al.*
 Oliver, D. J., and I. Zelitch: Increasing photosynthesis by inhibiting photorespiration with glyoxylate, 1450
 Olkin, I.: *book review* of Discrete multivariate analysis, 156
 Olmsted, J. B.: *book review* of Microtubules and microtubule inhibitors, 421
 OLSON, S. L. (Ed.), Collected papers in avian paleontology honoring the 90th birthday of Alexander Wetmore, *book review* of, 288
 Ondetti, M. A., *et al.*: Design of specific inhibitors of angiotensin-converting enzyme: new class of orally active antihypertensive agents, 441
 On explosive Cenozoic volcanism and climatic implications, J. P. Kennett and R. C. Thunell, 1231
 Optics of the atmosphere, E. J. MC CARTNEY, *book review* by J. N. Howard, 1084
 Orfila, A.: Energy development in the Americas (*editorial*), 611
 Origin of Roman "royal purple" (*letters*), J. E. Huheey and G. D. Ruggieri, 262
 Origins of an ecological theory (*letter*), D. F. Rhoades, 1358
 ORÓ, J. *See* KORNBERG, A., *et al.*
 ORTON, C. *See* HODDER, I.
 OSMOND, C. B. *See* TOLBERT, N. E.
 Otto, S. V. *See* Harshbarger, J. C., *et al.*

P

- Paddock, G. V. *See* Liu, A. Y., *et al.*
 Panasenkov, S. M., *et al.*: Five hundredfold overproduction of DNA ligase after induction of a hybrid lambda lysogen constructed in vitro, 188
 Papakostopoulos, D. *See* Cooper, R., *et al.*
 Papavasiliou, P. S. *See* Cotzias, G. C., *et al.*

- Papayannopoulou, Th., *et al.*: Hemoglobin ontogenesis: test of the gene excision hypothesis, 1215
 Partch, R. *See* Katz, J. L., *et al.*
 Partial denervation affects both denervated and innervated fibers in the mammalian skeletal muscle, A. Cangiano and L. Lutzemberger, 542
 Pathogenic amoebas from brackish and ocean sediments, with a description of *Acanthamoeba hatchetti*, n. sp., T. K. Sawyer *et al.*, 1324
 Patterns of human variation, J. S. FRIEDLAENDER, *book review* by M. H. Crawford, 153
 Patterson, M. M., *et al.*: Classical nictitating membrane conditioning in the awake, normal, restrained cat, 1124
 Pattillo, R. A., *et al.*: Tumor antigen and human chorionic gonadotropin in CaSki cells: a new epidermoid cervical cancer cell line, 1456
 Paul Erdős: addenda (*letter*), M. Golomb, 938
 Paul, I. C. *See* Chiang, C. C.
 Payne, J. F.: Oil spills: effects of petroleum on marine organisms (*letter*), 10
 PAYNE, J. W. *See* CARROLL, J. S.
 Peacock, J. *See* Christian, C. N., *et al.*
 Pearson, D.: *book review* of Subcellular mechanisms in reproductive neuroendocrinology, 1194
 Pelletier, G., *et al.*: Somatostatin: electron microscope immunohistochemical localization in secretory neurons of rat hypothalamus, 1469
 Pellmar, T. C. *See* Wilson, W. A., *et al.*
 Pentchev, P. G. *See* Sakuragawa, N., *et al.*
 Perception of impossible limb positions induced by tendon vibration, B. Craske, 71
 Perez-Cruet, J. *See* Volavka, J., *et al.*
 Permeation of manganese, calcium, zinc, and beryllium through calcium channels of an insect muscle membrane, J. Fukuda and K. Kawa, 309
 Perricaudet, M., *et al.*: Excision and recombination of adenovirus DNA fragments in *Escherichia coli*, 208
 Persistence of Hong Kong influenza virus variants in pigs, K. F. Shortridge *et al.*, 1454
Petrolacosaurus, the oldest known diapsid reptile, R. R. Reisz, 1091
 Pettengill, G. H. *See* Campbell, D. B., *et al.*
 Pettersson, U. *See* Perricaudet, M., *et al.*
 Pezet, R., and V. Pont: Elemental sulfur: accumulation in different species of fungi, 428
 Pheromonally induced sexual maturation in females: regulation by the social environment of the male, J. R. Lombardi and J. G. Vandenberg, 545
 Philipson, L. *See* Perricaudet, M., *et al.*
 Phillips, A. G. *See* van der Kooy, D.
 Phillips, D. P.: Motor vehicle fatalities increase just after publicized suicide stories, 1464
 Phospholipid derivative of cytosine arabinoside and its conversion to phosphatidylinositol by animal tissue, A. C. R. H. Raetz *et al.*, 303
 Photoassisted electrolysis of water by visible irradiation of a p-type gallium phosphide electrode, M. Tomkiewicz and J. M. Woodall, 990
 Photoreceptor outer segments: accelerated membrane renewal in rods after exposure to light, J. C. Besharse *et al.*, 536
 Photorespiration in marine plants, N. E. TOLBERT and C. B. OSMOND (Eds.), *book review* by R. K. Trench, 645
 Photosynthetic unit of hydrogen evolution, The, E. Greenbaum, 879
 Phyllotaxis and the Fibonacci series, G. J. Mitchison, 270
 Phyllotaxis in *Xanthium* shoots altered by gibberellic acid, R. Maksymowych and R. O. Erickson, 1201
 Physics of ap-stars, W. W. WEISS *et al.* (Eds.), *book review* by E. J. Wampler, 777
 Piatigorsky, J., and T. Shinohara: Lens cataract formation and reversible alteration in crystallin synthesis in cultured lenses, 1345
 Pictet, R. *See* Ullrich, A., *et al.*
 Piliero, S. J. *See* Naughton, B. A., *et al.*
 Pizzi, W. J., *et al.*: Monosodium glutamate administration to the newborn reduces reproductive ability in female and male mice, 452
 Platt, J. *See* Gaskins, D. W., Jr., *et al.*
 Plaut, W.: *book review* of Reproduction of eukaryotic cells, 866
 Plomin, R., *et al.*: Assortative mating by unwed biological parents of adopted children, 449
 Pocock, P. V. *See* Cooper, R., *et al.*
 Pohl, R. O. *See* Resnikoff, M.
 Polarity transition records and the geomagnetic dynamo, K. A. Hoffman, 1329
 Policy for ocean resource development (*editorial*), W. S. Gaither, 383
 Pollak, G., *et al.*: Echo-detecting characteristics of neurons in inferior colliculus of unanesthetized bats, 675
 Pollack, G. H.: Cardiac pacemaking: an obligatory role of catecholamines?, 731
 POLLARD, T. *See* GOLDMAN, R., *et al.*
 Polyelectrolytes: potential chloroform precursors, K. L. E. Kaiser and J. Lawrence, 1205
 Pont, V. *See* Pezet, R.
 Pontine reticular formation neurons: relationship of discharge to motor activity, J. M. Siegel and D. J. McGinty, 678
 Posluszny, U. *See* Tomlinson, P. B.
 Potential operating region for ultrasoft x-ray microscopy of biological materials, D. Sayre *et al.*, 1339
 Potter, R. M., and G. R. Rossman: Desert varnish: the importance of clay minerals, 1446
 Powell, J. A.: *book review* of Legion of night, 288
 Pratt, W. P. *See* Hays, B. D., *et al.*
 Prehistory of the Nile Valley, F. WENDORF and R. SCHILD, *book review* by C. E. Stearns, 971
 Preliminary damage of red cells in filtrates from peroxidizing microsomes, M. K. Rodgers *et al.*, 1221
 PREMACK, D.: Intelligence in ape and man, *book review* of, 755
 PRESCOTT, D. M.: Reproduction of eukaryotic cells, *book review* of, 866
 Presley, B. J. *See* Shokes, R. F., *et al.*
 Press, F., and G. Busbee: Intergovernmental science and technology (*editorial*), 943
 Prevention of autoimmunity in experimental lupus erythematosus by soluble immune response suppressor, R. S. Krakauer *et al.*, 56
 Price, D. D. *See* Hayes, R., *et al.*
 Price, J. M. *See* Hays, B. D., *et al.*
 Prichep, L. *See* John, E. R., *et al.*
 Probability of establishing chimeric plasmids in natural populations of bacteria, B. R. Levin and F. M. Stewart, 218
 Probability of the Pittsburgh deaths (*letter*), M. Kac and S. I. Rubinow, 480
 Progress in nucleic acid research and molecular biology, W. E. COHN and E. VOLKIN (Eds.), *book review* by J. F. Scott, 644
 Prolactin-like immunoreactivity: localization in nerve terminals of rat hypothalamus, K. Fuxe *et al.*, 899
 Proofs and refutations, I. LAKATOS, *book review* by P. Kitcher, 782
 Prospero, J. M., and R. T. Nees: Dust concentration in the atmosphere of the equatorial North Atlantic: possible relationship to the Sahelian drought, 1196
 Protein crystallography, T. L. BLUNDELL and L. N. JOHNSON, *book review* by H. M. Beriman, 50
 Provine, W. B.: *book review* of To be an invalid, 1431
 Psychology of left and right, The, M. C. CORBALLIS and I. L. BEALE, *book review* by C. Trevarthen, 768
 Puviani, R. *See* Pelletier, G., *et al.*
 Pyroelectricity and induced pyroelectric polarization in leaves of the palmlike plant *Encephalartos villosus*, S. B. Lang and H. Athenstaedt, 985

Q and R

- Quarks with unit charge: a search for anomalous hydrogen, R. A. Muller *et al.*, 521
- Radioimmunoassay for abnormal hemoglobins, F. A. Garver *et al.*, 1334
- Radioisotope dating with a cyclotron, R. A. Muller, 489
- Raetz, C. R. H., *et al.*: A phospholipid derivative of cytosine arabinoside and its conversion to phosphatidylinositol by animal tissue, 303
- Rapid response to selection for a non-diapausing gypsy moth, M. A. Hoy, 1462
- Rat insulin genes: construction of plasmids containing the coding sequences, A. Ullrich *et al.*, 1313
- Rattansi, P. M.: *book review* of Science and civilisation in China, vol. 5, 155
- Rattazzi, M. C. See Cork, L. C., *et al.*
- Rawson, M. See Heezen, B. C.
- Rayborn, M. E. See Besharse, J. C., *et al.* See also Lolley, R. N., *et al.*
- Rayner, M. D. See Guillory, R. J., *et al.*
- Rayport, S. See Wald, G.
- Reading disability: an information-processing analysis, F. J. Morrison *et al.*, 77
- Recknagel, R. O. See Roders, M. K., *et al.*
- Recombinant DNA debate, The (*editorial*), M. F. Singer, 127
- Recombinant DNA: examples of present-day research, J. Abelson, 159
- Recombinant DNA research: international cooperation (*letter*), V. Sgaramella, 120
- Recombinational switch for gene expression, J. Zieg *et al.*, 170
- Reflections on biochemistry, A. KORNBERG *et al.* (Eds.), *book review* by J. T. Edsall, 769
- Regal, P. J.: Ecology and evolution of flowering plant dominance, 622
- Reginato, R. J. See Idso, S. B., *et al.* See also Kalma, J. E., *et al.*
- Reid, D. F. See Shokes, R. F., *et al.*
- Reisz, R. R.: *Petrolacosaurus*, the oldest known diapsid reptile, 1091
- Remote-sensing of crop yields, S. B. Idso *et al.*, 19
- Reproduction of eukaryotic cells, D. M. Prescott, *book review* by W. Plaut, 866
- Research News: animal viruses, 417; aspirin and heart attacks, 1075; blood clotting, 1072; Calabi conjecture, 1308; Canadian disposal of spent fuel, 286; catastrophe theory, 287; critical phenomena, 861; guayule and jojoba agriculture, 1189; hormone receptor regulation, 747; lectins and recognition processes, 1429; malaria and its resurgence in research, 413; nitrogen fixation and genetic manipulation, 638; nuclear fuel reprocessing, 43; 284; overlapping genes, 1187; persistent infections and viruses, 151; quarks and hints of two from Stanford, 746; remote sensing, 511; surface science, 1306; ternary compounds, 966; wine and a virus, 1074
- Resnikoff, M., and R. O. Pohl: Nuclear waste management (*letters*), 714
- Response regulator model in a simple sensory system, A. D. E. Koshland, Jr., 1055
- Retention of plutonium and americium by rock, S. Fried *et al.*, 1087
- Reusch, R. J. See Katz, J. L., *et al.*
- Rhoades, D. F.: Origins of an ecological theory (*letter*), 1358
- Ribulose biphosphate carboxylase: a two-layered, square-shaped molecule of symmetry 422, T. S. Baker *et al.*, 293
- Rich, A. See Votano, J. R., *et al.*
- RICHARDSON, S. A. See BEGAB, M. J.
- Richelson, E.: Lithium ion entry through the sodium channel of cultured mouse neuroblastoma cells: a biochemical study, 1001
- Richter, B.: From the psi to charm: the experiments of 1975 and 1976, 1286
- Richtmyer, R. D.: *book review* of In at the beginning, 776
- Rickard, W. H., *et al.*: Elk in the shrub-steppe region of Washington: an authentic record, 1009
- Riggs, A. D. See Scheller, R. H., *et al.*, page 177
- Rippeon, D. L. See Krakauer, R. S., *et al.*
- Rivier, J. See Brown, M., *et al.*
- Roberts, J. A., Jr., and A. W. Searcy: Anomalous temperature dependence for a partial vapor pressure, 525
- Roberts, M. K. See Plomin, R., *et al.*
- Robertson, Andrew. See Chapra, S. C.
- Robertson, Anthony. See Gingle, A. R.
- Robertson, D. E., *et al.*: Mercury emissions from geothermal power plants, 1094
- Robinson, A. L. (*Research News*): critical phenomena, 861; surface science, 1306; ternary compounds, 966
- Roders, M. K., *et al.*: Prelytic damage of red cells in filtrates from peroxidizing microsomes, 1221
- Roeske, R. W. See Kennedy, S. J., *et al.*
- Rohl, A. N., *et al.*: Environmental asbestos pollution related to use of quarried serpentine rock, 1319
- Ronca, L. B. See Florensky, C. P., *et al.*
- Rose, C. W. See Kalma, J. D., *et al.*
- Rose, F. L., and J. C. Harshbarger: Neoplastic and possible related skin lesions in neotenic tiger salamanders from a sewage lagoon, 315
- Rosen, R. See Senechal, M., *et al.*
- ROSENBAUM, J. See GOLDMAN, R., *et al.*
- Rosenberg, H. I. See Eisner, T., *et al.*
- Rosenthal, G. A., *et al.*: Degradation and detoxification of canavanine by a specialized seed predator, 658
- Ross, M.: *book review* of Cognition and social behavior, 1309
- Ross, M. J. See Backman, K., *et al.*
- Ross, R. See Fan, T. Y., *et al.*
- Rossman, G. R. See Potter, R. M.
- Roth, W. L., and G. C. Farrington: Lithium-sodium beta alumina: first of a family of co-ionic conductors?, 1332
- Roughgarden, J.: *book review* of Theoretical ecology, 51
- Rounbehler, D. P. See Fan, T. Y., *et al.*
- Routtenberg, A. See Morgan, J. M.
- Rowinski, J. See Kendall, F., *et al.*
- Rowland, N. See Stricker, E. M., *et al.*
- Roy, M. See Naughton, B. A., *et al.*
- Rubin, B. See Ondetti, M. A., *et al.*
- Rubinow, S. I. See Kac, M.
- Ruby, E. G., and K. H. Nealson: A luminous bacterium that emits yellow light, 432
- Ruckert, A. C. F. See Pattillo, R. A., *et al.*
- Ruddiman, W. F.: North Atlantic ice-rafting: a major change at 75,000 years before the present, 1208
- Ruddle, F. H. See McKusick, V. A.
- Ruffner, C. G. See Lee, K.-H., *et al.*
- Rufino, F. See Marquardt, H., *et al.*
- Ruggieri, G. D. See Huheey, J. E.
- RUMBAUGH, D. M. (Ed.), Language learning by a chimpanzee, *book review* of, 755
- Russell, L. B. See Moses, M. J., *et al.*
- Rustioni, A.: Spinal neurons project to the dorsal column nuclei of rhesus monkeys, 656
- Rutter, W. J. See Ullrich, A., *et al.*
- RYAN, K. J. See NAFTOLIN, F., *et al.*
- RYDE, N.: Atoms and molecules in electric fields, *book review* of, 866
- Saenger, P. See Koo, G. C., *et al.*
- Sakuragawa, M. See Sakuragawa, N., *et al.*
- Sakuragawa, N., *et al.*: Niemann-Pick disease experimental model: sphingomyelinase reduction induced by AY-9944, 317
- Saller, C. F. See Stricker, E. M., *et al.*
- Salser, W. See Liu, A. Y., *et al.*
- Sandman, C. A. See Walker, J. M., *et al.*
- San Pablo corn kernel and its friends, The, C. Zevallos M. *et al.*, 385
- Sansone, E. B., and W. Lijinsky: Carcinogens in schools (*letter*), 1272
- Santos, G. W. See Wiktor-Jedrzejczak, W., *et al.*
- Sar, M. See Stumpf, W. E., *et al.*
- SARGENT, T. D.: Legion of night, *book review* of, 288
- Saunders, R. S. See Malin, M. C.
- Sawyer, T. K., *et al.*: Pathogenic amoebas from brackish and ocean sediments, with a description of *Acanthamoeba hatchetti*, n. sp., 1324
- Sayre, D., *et al.*: Potential operating region for ultrasoft x-ray microscopy of biological materials, 1339
- Sberna, D. See Goldberg, E., *et al.*
- Schally, A. V. See Walker, J. M., *et al.*
- Schedl, H. P. See Schneider, L. E., *et al.*
- Schedule control of behavior reinforced by electrical stimulation of the brain, R. J. Beninger *et al.*, 547
- Scheffler, H. See Adams, R. N., *et al.*
- Scheller, R. H., *et al.*: Chemical synthesis of restriction enzyme recognition sites useful for cloning, 177
- Scheller, R. H., *et al.*: Clones of individual repetitive sequences from sea urchin DNA constructed with synthetic Eco RI sites, 197
- SCHILD, R. See WENDORF, F.
- Schindler, A. F. See Stoloff, L., *et al.*
- Schipper, L. See Starr, C., *et al.*
- Schneider, L. E., *et al.*: Experimental diabetes reduces circulating 1,25-dihydroxyvitamin D in the rat, 1452
- Schoener, T. W.: *book review* of The ethology of predation, 157
- Schooling and achievement in American society, W. H. SEWELL *et al.* (Eds.), *book review* by B. Heyns, 763
- Schopf, T. J. M.: *book review* of Conodont paleoecology, 1433
- Schotland, D. L., *et al.*: Duchenne dystrophy: alteration in muscle plasma membrane structure, 1005
- Schubert, E. D. See Hill, B. C., *et al.*
- Schumm, J. W. See Blattner, F. R., *et al.*
- Schupf, N. See Williams, C. A., Jr.
- Schwalm, P. A., *et al.*: Infrared reflectance in leaf-sitting neotropical frogs, 1225
- Schwartz, B. See Chang, K. C., *et al.*
- Schwartz, E. See John, E. R., *et al.*
- Schwartzbach, S. D. See Lomax, M. I., *et al.*
- Science and civilisation in China, vol. 5, J. NEEDHAM, *book review* by P. M. Rattansi, 155
- Science and technology strategy for the LDC's (*editorial*), M. S. Wionczek, 837
- Science and the future of the family (*editorial*), A. Etzioni, 487
- Science in Europe: Benn and British rethink energy policy, 146; Carter nuclear policy finds few friends, 1067; low marks for high technology, 636
- Science in the White House: a new start, L. M. Branscomb, 848
- Science textbook controversies and the politics of equal time, D. NELKIN, *book review* by J. Guthrie, 752
- Scientific elite, H. ZUCKERMAN, *book review* by J. L. Heilbron, 754
- Scientific rivalries: a sign of vitality? (*letter*), F. J. Stech, 830
- "Scientific" social anthropology (*letters*), R. N. Adams *et al.*, 372
- Scotopic vision deficits in young monkeys exposed to lead, P. J. Bushnell *et al.*, 333
- Scott, J. F.: *book review* of Progress in nucleic acid research and molecular biology, 644
- Screening λ gt recombinant clones by hybridization to single plaques in situ, W. D. Benton and R. W. Davis, 180
- Scribner, R. A.: AISLE conference aids Massachusetts lawmakers (AAAS), 46
- Sea urchin recruitment patterns and implications of commercial fishing, M. J. Tegner and P. K. Dayton, 324
- Searching for extraterrestrial civilizations, T. B. H. Kuiper and M. Morris, 616
- Searcy, A. W. See Roberts, J. A., Jr.
- Searl, M. F. See Gaskins, D. W., Jr., *et al.*
- Second phases in steel, W. R. Bandi, 136
- Section W annual meeting symposia break records (AAAS), S. A. Changnon, Jr., 643
- Seegal, R. See Hotchin, J., and R. Seegal
- Selfish gene, The, R. DAWKINS, *book review* by W. D. Hamilton, 757

- Selikoff, I. J. *See* Rohl, A. N., *et al.*
 Sell, K. W. *See* Wiktor-Jedrzejczak, W., *et al.*
 Sellers, D. *See* Gaston, L. K., *et al.*
 Sen, N. P. *See* Fan, T. Y., *et al.*
 Senechal, M., *et al.*: Catastrophe theory (*letters*), 1270
 Serum complement-like opsonic activities in human, animal, vegetable, and proprietary milks, M. E. Miller and R. G. Ganges, 1115
 Sesquiterpene antitumor agents: inhibitors of cellular metabolism, K.-H. Lee *et al.*, 533
 Sesquiterpene progenitor, germacrene A: an alarm pheromone in aphids, W. S. Bowers *et al.*, 680
 Severson, R. C. *See* Hayden, J. A., *et al.*
 SEWELL, W. H., *et al.* (Eds.), *Schooling and achievement in American society*, *book review of*, 763
 Sgaramella, V.: Recombinant DNA research: international cooperation (*letter*), 120
 Shalaby, M. R. *See* Pattillo, R. A., *et al.*
 Shapiro, I. I. *See* Campbell, D. B., *et al.*
 Shapley, D. (*News and Comment*): krill problem in the Antarctic, 503; missile accuracies, 1185; ocean mining and former negotiator, 964; space chief nominee and "good science", 1301; Warnke and verification task, 859
 Sharkis, S. *See* Wiktor-Jedrzejczak, W., *et al.*
 Shearn, A. *See* Davis, K. T.
 Sheldon, E. L. *See* Blattner, F. R., *et al.*
 Sherman, P. W. *See* Alexander, R. D.
 SHIMODA, K. (Ed.), *High-resolution laser spectroscopy*, *book review of*, 973
 Shine, J. *See* Ullrich, A., *et al.*
 Shneour, E. A.: Controversial grant proposal (*letter*), 124
 Shokes, R. F., *et al.*: Anoxic, hypersaline basin in the northern Gulf of Mexico, 1443
 Shorey, H. H. *See* Gaston, L. K., *et al.*
 Shortridge, K. F., *et al.*: Persistence of Hong Kong influenza virus variants in pigs, 1454
 Sibert, J., *et al.*: Detritus-based food webs: exploitation by juvenile chum salmon (*Onchorynchus keta*), 649
 Sickle hemoglobin aggregation: a new class of inhibitors, J. R. Votano *et al.*, 1216
 Siegel, J. M., and D. J. McGinty: Pontine reticular formation neurons: relationship of discharge to motor activity, 678
 Silva, P. C. *See* Moe, R. L.
 Silverman, M. *See* Zieg, J., *et al.*
 Silverman, P. H.: Malaria vaccines (*letter*), 1156
 Simon, M. *See* Zieg, J., *et al.*
 Sinclair, R. M.: Solar eclipses and ancient artistic motifs (*letter*), 715
 Singer, M. *See* Adams, R. N., *et al.*
 Singer, M. F.: The recombinant DNA debate (*letter*), 127
 Singer, S. F.: Btu borrowing? (*letter*), 1041
 Skalka, A. M. *See* McClements, W.
 Skett, P. *See* Fuxe, K., *et al.*
 Slesser, M., *et al.*: Energy analysis (*letters*), 259
 SLETTEBAK, A. (Ed.), *Be and shell stars*, *book review of*, 777
 Sliski, A. H., *et al.*: Feline oncornavirus—associated cell membrane antigen: expression in transformed nonproducer mink cells, 1336
 Smith, J. R., *et al.*: Thyrotropin-releasing hormone: stimulation of colonic activity following intracerebroventricular administration, 660
 Smith, M. E.: Antagonisms and controversies (*letter*), 258
 SMITH, M. R. (Ed.), *Harpers Ferry Armory and the new technology*, *book review of*, 1432
 Smithies, O. *See* Blattner, F. R., *et al.*
 Smithsonian, The: fact and hearsay (*letter*), C. W. Larsen, 1152
 Smithsonian under scrutiny, The (*letter*), W. V. Mayer, 1385
 Snyder, S. H. *See* Burt, D. R., *et al.*
 Soble, L. *See* Kuettner, K. E., *et al.*
 Social cost (*letters*), R. Dorfman and E. Cook, 940
 Soil conservation (*letter*), H. E. Conklin, 1040
 Soils of the polar landscapes, J. C. F. TEDROW, *book review by* P. Colinvaux, 779
 Solar eclipses and ancient artistic motifs (*letter*), R. M. Sinclair, 715
 Somatostatin: analogs with selected biological activities, M. Brown *et al.*, 1467
 Somatostatin: electron microscope immunohistochemical localization in secretory neurons of rat hypothalamus, G. Pelletier *et al.*, 1469
 Souther, A. *See* Pollack, G., *et al.*
 Spano, P. F., *et al.*: Localization of nigral dopamine-sensitive adenylate cyclase on neurons originating from the corpus striatum, 1343
 Spatial analysis in archaeology, I. HODDER and C. ORTON, *book review by* G. L. Cowgill, 972
 Spector, I. *See* Moolenaar, W. H.
 Sperling, H. G. *See* Marc, R. E.
 Spiller, E. *See* Sayre, D., *et al.*
 Spinal neurons project to the dorsal column nuclei of rhesus monkeys, A. Rustioni, 656
 Srinivasan, V. *See* Stroke, G. W., *et al.*
 Srivastava, S. P. *See* Raetz, C. R. H., *et al.*
 Stability of the individual globin genes during erythroid differentiation, E. Benz, Jr., *et al.*, 1213
 Stable semiconductor liquid junction cell with 9 percent solar-to-electrical conversion efficiency, K. C. Chang *et al.*, 1097
 Stamatoyannopoulos, G. *See* Papayannopoulou, Th., *et al.*
 STANLEY, D. J., and D. J. P. SWIFT (Eds.), *Marine sediment transport and environmental management*, *book review of*, 420
 Starnes, C. O. *See* Lee, K.-H., *et al.*
 Starr, C., *et al.*: Is Sweden more energy-efficient? (*letters*), 121
 Starrett, P. H. *See* Schwalm, P. A., *et al.*
 Status of the gene map of the human chromosomes, The, V. A. McKusick and F. H. Ruddle, 390
 Stearns, C. E.: *book review of* Early hydraulic civilization in Egypt and Prehistory of the Nile Valley, 971
 Stech, F. J.: Scientific rivalries: a sign of vitality? (*letter*), 830
 Steere, A. C., *et al.*: Erythema chronicum migrans and Lyme arthritis: cryoimmunoglobulins and clinical activity of skin and joints, 1121
 Stephan, G. E.: Territorial division: the least-time constraint behind the formation of subnational boundaries, 523
 Stephenson, E. J. *See* Muller, R. A., *et al.*
 Stern, E., *et al.*: Steroid contraceptive use and cervical dysplasia: increased risk of progression, 1460
 Steroid contraceptive use and cervical dysplasia; increased risk of progression, E. Stern *et al.*, 1460
 Stevens, E. D. *See* Guernsey, D. L.
 Stewart, F. M. *See* Levin, B. R.
 Stillings, N. *See* Townsend, J. M., *et al.*
 Stink of stinkpot turtle identified: ω -phenylalkanoic acids, T. Eisner *et al.*, 1347
 Stoloff, L., *et al.*: *Aspergillus oryzae* (NRRL strain 1988), 1353
 Stone, W. H. *See* Usinger, W. R., *et al.*
 Story, M. T. *See* Pattillo, R. A., *et al.*
 Stress-induced modulation of the immune response, A. A. Monjan and M. I. Collector, 307
 Stricker, E. M., *et al.*: Homeostasis during hypoglycemia: central control of adrenal secretion and peripheral control of feeding, 79
 Strobel, G. A. *See* Currier, W. W.
 Strobel, M. *See* Chayes, F., *et al.*
 Strober, W. *See* Krakauer, R. S., *et al.*
 Stroke, G. W., *et al.*: Holography and image display in x-ray crystallography (*letter*), 1040
 Stromatolites, M. R. WALTER (Ed.), *book review by* R. N. Ginsburg, 780
 Stumpf, W. E., *et al.*: The heart: a target organ for estradiol, 319
 Subcellular mechanisms in reproductive neuroendocrinology, F. NAFTOLIN *et al.* (Eds.), *book review by* D. Pearson, 1194
 Subcommittee on Infringements of Scientific Freedom (AAAS), H. B. Glass, 46
 Suckling as incentive to instrumental learning in preweanling rats, J. T. Kenny and E. M. Blass, 898
 Suga, N.: Amplitude spectrum representation in the Doppler-shifted-CF processing area of the auditory cortex of the mustache bat, 64
 Suppression of sympathetic nervous system during fasting, J. B. Young and L. Landsberg, 1473
 Surface of Venus: evidence of diverse landforms from radar observations, M. C. Malin and R. S. Saunders, 987
 SUTTON, G. H., *et al.* (Eds.), *The geophysics of the Pacific Ocean basin and its margin*, *book review of*, 519
 Swenson, R. *See* Kendall, F., *et al.*
 SWIFT, D. J. P. *See* STANLEY, D. J.
 Synapse formation between two clonal cell lines, C. N. Christian *et al.*, 995
 Synthetic peptides form ion channels in artificial lipid bilayer membranes, S. J. Kennedy *et al.*, 1341
 Syntony and spark, H. G. J. AITKEN, *book review by* R. Belfield, 1083
 Szeto, W. W., *et al.*: Cloning of cauliflower mosaic virus (CLMV) DNA in *Escherichia coli*, 210

T

- Takeshita, T. *See* Elattar, A., *et al.*
 Tang, L. C. *See* Cotzias, G. C., *et al.*
 Tapper, D. N. *See* Wiesenfeld, Z., *et al.*
 TEDROW, J. C. F., *Soils of the polar landscapes*, *book review of*, 779
 Tegner, M. J., and P. K. Dayton: Sea urchin recruitment patterns and implications of commercial fishing, 324
 Tengö, J., and G. Bergström: Cleptoparasitism and odor mimetism in bees: do *Nomada* males imitate the odor of *Andrena* females?, 1117
 Territorial division: the least-time constraint behind the formation of subnational boundaries, G. E. Stephan, 523
 Thatcher, R. *See* John, E. R., *et al.*
 Theoretical ecology, R. M. MAY (Ed.), *book review by* J. Roughgarden, 51
 Theta-sensitive cell and erythropoiesis: identification of a defect in W/W^a anemic mice, W. Wiktor-Jedrzejczak *et al.*, 313
 Thomas, C. A., Jr. *See* Szeto, W. W., *et al.*
 Thomas, M. V., and A. L. F. Gorman: Internal calcium changes in a bursting pacemaker neuron measured with arsenazo III, 531
 Thomas, T. L. *See* Scheller, R. H., *et al.*, page 197
 Thompson, W. H., and B. J. Beaty: Venereal transmission of La Crosse (California encephalitis) arbovirus in *Aedes triseriatus* mosquitoes, 530
 Thorgaard, G. H.: Heteromorphic sex chromosomes in male rainbow trout, 900
 Thunell, R. C. *See* Kennett, J. P.
 Thyrotropin-releasing hormone: stimulation of colonic activity following intracerebroventricular administration, J. R. Smith *et al.*, 660
 Tidball, R. R. *See* Hayden, J. A., *et al.*
 Tiemeier, D. *See* Leder, P., *et al.*
 Tien, C., *et al.*: Chainlike formation of particle deposits in fluid-particle separation, 983
 Ting, S. C. C.: The discovery of the J particle: a personal recollection, 1167
 Tiollais, P. *See* Perricaudet, M., *et al.*
 Tischer, E. *See* Ullrich, A., *et al.*
 To be an invalid, R. COLP, JR. (Ed.), *book review by* W. B. Provine, 1431
 Todaro, G. *See* Sliski, A. H., *et al.*
 Toji, L. H. *See* Nichols, W. W., *et al.*
 Toksöz, M. N., *et al.*: Moonquakes: mechanisms and relation to tidal stresses, 979

- TOLBERT, N. E., and C. B. OSMOND (Eds.), Photorespiration in marine plants, *book review of*, 645
- Tomkiewicz, M., and J. M. Woodall: Photoassisted electrolysis of water by visible irradiation of a *p*-type gallium phosphide electrode, 990
- Tomlinson, P. B., and U. Posluszny: Apical dichotomy demonstrated in the angiosperm *Flagellaria*, 1111
- Toro, A. *See* John, E. R., *et al.*
- Towe, K. M.: *book review of* The mechanisms of mineralization in the invertebrates and plants, 1311
- TOWER, D. B. (Ed.), The nervous system, *book review of*, 419
- Townsend, J. M., *et al.*: Labeling theory (*letters*), 480
- Trabant, P. K. *See* Shokes, R. F., *et al.*
- Trabucchi, M. *See* Spano, P. F., *et al.*
- Tree physiology and yield improvement, M. G. R. CANNELL and F. T. LAST (Eds.), *book review by* M. H. Zimmermann, 865
- Trench, R. K.: *book review of* Photorespiration in marine plants, 645
- Trevarthen, C.: *book review of* The psychology of left and right, 768
- Trigeminal substrates of intracranial self-stimulation in the brainstem, D. van der Kooy and A. G. Phillips, 447
- Tris buffer attenuates acetylcholine responses in *Aplysia* neurons, W. A. Wilson *et al.*, 440
- Tritium-helium dating in the Sargasso Sea: a measurement of oxygen utilization rates, W. J. Jenkins, 291
- Tropical medicine—new vigor (*editorial*), H. A. Minners, 1275
- Tumor antigen and human chorionic gonadotropin in CaSki cells: a new epidermoid cervical cancer cell line, R. A. Pattillo *et al.*, 1456
- Tumor cell collagenase and its inhibition by a cartilage-derived protease inhibitor, K. E. Kuettner *et al.*, 653
- Turcotte, J. G. *See* Raetz, C. R. H., *et al.*
- Turner, P. *See* Benz, E., Jr., *et al.*

U

- Ullrich, A., *et al.*: Rat insulin genes: construction of plasmids containing the coding sequences, 1313
- Uranium resources (*letters*), D. W. Gaskins, Jr., *et al.*, 600
- Urbanski, G. J. *See* Goldberg, E., *et al.*
- Use of correlation statistics with rubidium-strontium systematics, F. Chayes *et al.*, 1234
- Use of isolators in recombinant DNA research, P. Kourilsky, 215
- Use of phage immunity in molecular cloning experiments, K. Backman *et al.*, 182
- Usher, D. A.: Early chemical evolution of nucleic acids: a theoretical model, 311
- Usinger, W. R., *et al.*: Lymphocyte-defined loci in cattle, 1017

V

- Valdes, P. *See* John, E. R., *et al.*
- Vale, W. *See* Brown, M., *et al.*
- Valley of Mexico, The, E. R. WOLF (Ed.), *book review by* K. V. Flannery, 759
- Vandenbergh, J. G. *See* Lombardi, J. R.
- van der Kooy, D., and A. G. Phillips: Trigeminal substrates of intracranial self-stimulation in the brainstem, 447
- Van Meter, M. *See* Schotland, D. L., *et al.*
- Venereal transmission of La Crosse (California encephalitis) arbovirus in *Aedes triseriatus* mosquitoes, W. H. Thompson and B. J. Beaty, 530
- Ventruto, V. *See* Koo, G. C., *et al.*
- Vestibular stimulation influence on motor development in infants, D. L. Clark *et al.*, 1228
- Vibrotactile pattern perception: extraordinary observers, J. C. Craig, 450
- Villablanca, J. R. *See* Norman, R. J., *et al.*
- Villarreal, L. P., and P. Berg: Hybridization

- in situ of SV40 plaques: detection of recombinant SV40 virus carrying specific sequences of nonviral DNA, 183
- Virus-induced behavioral alteration of mice, J. Hotchin and R. Seegal, 671
- Vision in annelid worms, G. Wald and S. Rayport, 1434
- Visual observations of the sea floor subduction line in the Middle-America Trench, B. C. Heezen and M. Rawson, 423
- Visual search in the pigeon: hunt and peck method, D. S. Blough, 1013
- Visvesvara, G. S. *See* Sawyer, T. K., *et al.*
- Volavka, J., *et al.*: Naloxone in chronic schizophrenia, 1227
- VOLKIN, E. *See* COHN, W. E.
- Votano, J. R., *et al.*: Sickie hemoglobin aggregation: a new class of inhibitors, 1216
- Voyaging canoes and the settlement of Polynesia, B. R. Finney, 1277

W

- Wachtel, S. S. *See* Koo, G. C., *et al.*
- Waddell, T. G. *See* Lee, K.-H., *et al.*
- Wade, N. (*News and Comment*): bishops keep tabs on science, 1180; drinking water, 1421; environmentalist Cutler at Department of Agriculture, 505; oppressed scientists and National Academy of Science, 741; particle beams as ABM weapons, 407; peer review process, 149; physics in Argentina, 1302; recombinant DNA, 39, 406; Russian beam weapon debate, 957
- Wake, D. B.: *book review of* Morphology and biology of reptiles, 866
- Wald, G., and S. Rayport: Vision in annelid worms, 1434
- Waldmann, T. A. *See* Krakauer, R. S., *et al.*
- Walker, C. A.: *book review of* Collected papers in avian paleontology honoring the 90th birthday of Alexander Wetmore, 288
- Walker, J. M., *et al.*: An analog of enkephalin having prolonged opiate-like effects in vivo, 85
- Wallace, D. H. *See* Ferrari, T. E.
- Wallace, W. E. *See* Elattar, A., *et al.*
- Walsh, E. (*News and Comment*): handicapped and science, 1424
- Walsh, J. (*News and Comment*): Carter on science advise, 1300; Energy Research and Development laboratories, 743; lobbying rules for nonprofits, 40; science agreements for U.S.S.R. and United States, 1064; science and technology at the Department of State, 148; scientists in space, 635; "The State of Academic Science: The Universities in the Nation's Research Effort," 1184; Steven's Institute of Technology, 280 (*erratum*, 745)
- WALTER, M. R. (Ed.), Stromatolites, *book review of*, 780
- Wampler, E. J.: *book review of* Abundance effects in classification, Be and shell stars, and Physics of ap-stars, 777
- Wang, C.-s. *See* Tien, C., *et al.*
- Wang, Y. Y. *See* Cotzias, G. C., *et al.*
- Ward, P. A. *See* Chapman, W. E.
- Warren, B. A.: Deep western boundary current in the eastern Indian Ocean, 53
- Warren, W. J. *See* Cooper, R., *et al.*
- Warwick, J. W.: *book review of* Jupiter, 153
- WATABE, N., and K. M. WILBUR (Eds.), The mechanisms of mineralization in the invertebrates and plants, *book review of*, 1311
- Watanabe, A. M. *See* Kennedy, S. J., *et al.*
- Waters, J. W. *See* Kakar, R. K., *et al.*
- Waterworth, H. E. *See* Kaper, J. M.
- Webster, R. G. *See* Shortridge, K. F., *et al.*
- Weidner, I. *See* Lee, K.-H., *et al.*
- Weisburger, J. H. *See* Marquardt, H., *et al.*
- WEISS, W. W., and R. SCHILD, Physics of ap-stars, *book review of*, 777
- Weissman, S. M. *See* Wilson, J. T., *et al.*
- Wen, F. C. *See* Katz, J. L., *et al.*
- WENDORF, F., and R. SCHILD, Prehistory of the Nile Valley, *book review of*, 971
- Wheat, T. E. *See* Goldberg, E., *et al.*
- Wherrett, J. R. *See* McIlroy, W. J.
- White, S. H.: *book review of* Cognitive development, 767

- WHITESIDE, D. T. (Ed.), The mathematical papers of Isaac Newton, *book review of*, 864
- Wiesenfeld, Z., *et al.*: Licking behavior: evidence of hypoglossal oscillator, 1122
- Wigner, E. P., and C. M. Haaland: Civil defense and nuclear blackmail (*letter*), 912
- Wiktor-Jedrzejczak, W., *et al.*: Theta-sensitive cell and erythropoiesis: identification of a defect in W/W^v anemic mice, 313
- WILBUR, K. M. *See* WATABE, N.
- Wilkinson, C. F. *See* Brattsten, L. B. *See also* Brattsten, L. B., *et al.*
- Will holography revolutionize crystallography? (*letter*), C. K. Johnson, 478
- Williams, B. G. *See* Blattner, F. R., *et al.*
- Williams, B. J.: *book review of* Kalahari hunter-gatherers, 761
- Williams, C. A., Jr., and N. Schupf: Antigen-antibody reactions in rat brain sites induce transient changes in drinking behavior, 328
- Wilson, J. T., *et al.*: Human globin messenger RNA: importance of cloning for structural analysis, 200
- Wilson, L. B. *See* Wilson, J. T., *et al.*
- Wilson, W. A., *et al.*: Tris buffer attenuates acetylcholine responses in *Aplysia* neurons, 440
- Wilson, W. J. *See* Kakar, R. K., *et al.*
- Winson, J., and C. Abzug: Gating of neuronal transmission in the hippocampus: efficacy of transmission varies with behavioral state, 1223
- Winson, S. B. *See* Hung, A. C. F.
- Wintner, C. E. *See* Eschenmoser, A.
- Wionczek, M. S.: Science and technology strategy for the LDC's (*editorial*), 837
- WOLF, E. R. (Ed.), The Valley of Mexico, *book review of*, 759
- Wolfe, B.: Low-level radiation: predicting the effects (*letter*), 1387
- WOOD, H. J. *See* WEISS, W. W., *et al.*
- Wood versus fossil fuel as a source of excess carbon dioxide in the atmosphere: a preliminary report, J. A. S. Adams *et al.*, 54
- Woodall, J. M. *See* Tomkiewicz, M.
- World hunger (*letter*); R. C. Clement, 938
- WRIGHT, S., Evolution and the genetics of populations, *book review of*, 1191
- Wunsch, C.: Determining the general circulation of the oceans: a preliminary discussion, 871

Y

- Yancy-McGuire, S. *See* McKeachie, W. J., *et al.*
- Yang, S. K., *et al.*: Benzo[a]pyrene diol epoxides: mechanism of enzymatic formation and optically active intermediates, 1199
- Yeats, R. S.: High rates of vertical crustal movement near Ventura, California, 295
- Yengoyan, A. A. *See* Adams, R. N., *et al.*
- Youkeles, L. *See* Stern, E., *et al.*
- Young, J. B., and L. Landsberg: Suppression of sympathetic nervous system during fasting, 1473
- Young, J. H.: *book review of* The healers, 864

Z

- Zare, R. N. *See* Diebold, G. J.
- Zava, D. T., *et al.*: Human breast cancer: biologically active estrogen receptor in the absence of estrogen?, 663
- Zeiger, E., and P. K. Hepler: Light and stomatal function: blue light stimulates swelling of guard cell protoplasts, 887
- Zelitch, I. *See* Oliver, D. J.
- Zevallos M., C., *et al.*: The San Pablo corn kernel and its friends, 385
- Zieg, J., *et al.*: Recombinational switch for gene expression, 170
- Ziegler, M. G. *See* Lake, C. R.
- Zigler, E.: *book review of* The mentally retarded and society, 1192
- Zimmermann, M. H.: *book review of* Tree physiology and yield improvement, 865
- Zucker, I. *See* Morin, L. P., *et al.*
- ZUCKERMAN, H., Scientific elite, *book review of*, 754