

The alert student may be mystified by the statement (on page 24) that methane decomposes to carbon and hydrogen above 1200°, shortly followed (on pages 37 and 38) by the one that acetylene and hydrogen can be formed from methane in reasonably high yield at 1400 to 1600°, if the exposure time is short enough. This is an oversimplification that overlooks the important factors of surface effects and concentrations on the complex sequence of reactions which determine the outcome of this pyrolysis.

The author's choice of compounds for discussion includes many substances found in commerce and a large group of physiologically active substances. This selection insures the interest of nurses, predoctoral students, majors in home economics, majors in agriculture, and similar groups, to whom the text is especially addressed.

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## Miscellaneous Publications

(Inquiries concerning these publications should be addressed to the publisher or agency sponsoring the publication, not to Science.)

**Arctic Aeromedical Laboratory.** *Technical Note*, AAL TN 60-4: "The effect of depth of immersion on the responses of the finger in ice water," C. J. Eagan (12 pp.); AAL TN 60-26: "Alterations in effects of morphine on the cold-acclimatized animal," H. Leong Way and H. W. Elliott (16 pp.); AAL TN 60-30: "Arctic field evaluation of vapor impermeable glove, flying," K. R. Skrettingland (9 pp.); AAL TN 60-32: "Refinements in photoelectric plethysmography," pt. 2, Alrick B. Hertzman (12 pp.); AAL TN 61-1: "Cardiovascular effects of refeeding stress following starvation," pt. 9, G. S. Smith and B. Connor Johnson (10 pp.); AAL TN 61-2: "Mechanism of adaptation to a threonine-deficient diet," pt. 4, Dorothy Arata (3 pp.); AAL TN 61-3: "Mechanism of adaptation to a threonine-deficient diet," pt. 5, Dorothy Arata (6 pp.); AAL TN 61-4: "A new heavy winter flying clothing assembly," James H. Veghte and James I. Clogston (9 pp.); AAL TN 61-7: "Evaluation of various types of boots in cold environments," Kermit R. Skrettingland, James Clogston, James H. Veghte (16 pp.); AAL TN 61-8: "T-33 aircraft survival container," Paul W. Barnett (6 pp.). Alaskan Air Command, Fort Wainwright, 1961 (order from USAF, APO 731, Seattle).

**Australia, Bureau of Mineral Resources, Geology, and Geophysics.** *Bulletin*, No. 61, "The molluscan fauna and probable lower Cretaceous age of the Nanutarra formation of Western Australia," L. R. Cox. Department of National Development, Canberra, 1961. 53 pp.

**Cornell University, Daniel and Florence Guggenheim Aviation Safety Center.** "Survey of research projects in the field of aviation safety, 1962 annual supplement," compiled by R. M. Woodham. The Center, New York, 1962. 23 pp.

**Geophysics Research Directorate.** *Air Force Surveys in Geophysics*, No. 140: "Proceedings of the national symposium on winds for aerospace vehicles design," vols. 1 and 2; N. Sissenwine and H. G. Kasten, Eds. (vol. 1, 233 pp.; vol. 2, 269 pp.). Air Force Cambridge Research Laboratories, Bedford, Mass., 1962 (order from Office of Technical Services, Washington, D.C.).

**Great Britain, Department of Scientific and Industrial Research.** "Register of research in the human sciences 1960-1961. DSIR, London, 1962 (order from British Information Services, New York). 123 pp. \$2.

**New York Botanical Garden.** *Annual Report, 1961 and Annual Meeting, 22 May 1962*. New York Botanical Garden, New York, 1962. 48 pp.

**Smithsonian Institution, Astrophysical Observatory.** *Smithsonian Contributions to Astrophysics*, vol. 4, No. 2: "Orbital elements of photographic meteors," Richard E. McCrosky and Annette Posen. Smithsonian, Washington, D.C., 1961 (order from Superintendent of Documents, GPO, Washington, D.C.). 84 pp. \$0.40.

**U.S. Geological Survey.** *Bulletin*, No. 1110-G, pp. 239-288: "Contributions to general geology, geology of the Otter Creek quadrangle, Montana," Roger B. Colton (maps and plates, 1962); No. 1123-B, pp. 95-138: "Geology of parts of the upper Mississippi Valley zinc-lead district, geology of the Montfort and Linden quadrangles, Wisconsin," John E. Carlson (maps, 1961). Superintendent of Documents, GPO, Washington, D.C.

**U.S. National Aeronautics and Space Administration.** "Proceedings of the International Meteorological Satellite Workshop, 13-22 November 1961," Hugh L. Dryden and Francis W. Reichelderfer, Chairman. NASA and U.S. Weather Bureau, Washington, D.C., 1962 (order from Superintendent of Documents, GPO, Washington, D.C.). 226 pp. \$1.75.

**U.S. National Bureau of Standards.** Circular, No. 488, *An Ultraviolet Multiplet Table*, sect. 3, "The spectra of molybdenum, technetium, ruthenium, rhodium, palladium, silver, cadmium, indium, tin, antimony, tellurium, iodine, xenon, cesium, barium, lanthanum, hafnium, tantalum, tungsten, rhenium, osmium, iridium, platinum, gold, mercury, thallium, lead, bismuth, polonium, radon, and radium" (94 pp. \$0.60); sect. 4, "Finding list for spectra of the elements hydrogen to niobium ( $Z = 1$  to 41)" (65 pp. \$0.45); sect. 5, "Finding list for spectra of the elements molybdenum to lanthanum ( $Z = 42$  to 57); hafnium to radium ( $Z = 72$  to 88)" (30 pp. \$0.30). Charlotte E. Moore. Superintendent of Documents, GPO, Washington, D.C., 1962.

**U.S. Office of Education.** OE-34015: *A Guide to Programmed Instructional Materials Available to Educators by September 1962*. Compiled by the Center for Programmed Instruction for the Office of

Education. Superintendent of Documents, GPO, Washington, D.C., 1962. 414 pp. Paper, \$1.50. Descriptive information and sample frames are provided for each program, but the programs are not evaluated.

**U.S. Office of Naval Research.** *ONR Report*, ACR-64: "Animals and man in space, a chronology and annotated bibliography through the year 1960," Dietrich E. Beischler and Alfred R. Fregly. ONR, Washington, D.C., 1962 (order from Office of Technical Services, Washington, D.C.). 97 pp. \$2.50.

**U.S. Public Health Service.** Publication No. 919: "Highlights of progress in mental health research, 1961. Prepared by the Publications and Reports Section, National Institute of Mental Health. Superintendent of Documents, GPO, Washington, D.C. \$0.25.

**University of California.** *Publications in Entomology*, Vol. 28, No. 1, pp. 1-124: "A revisional study of the bees of the genus *Perdita* F. Smith, with special reference to the fauna of the Pacific coast (Hymenoptera, Apoidea)," pt. 5, P. H. Timberlake (\$2.50); *Publications in Geological Sciences*, vol. 42, No. 1: "Superposed deformations in the central Sierra Nevada foothills, east of the mother lode," Alexander K. Baird (69 pp. Maps. \$2). Univ. of California Press, Berkeley, 1962.

**University of Illinois, Engineering Experiment Station.** *Bulletin*, No. 462: "Hydrologic determination of waterway areas for the design of drainage structures in small drainage basins," Ven Te Chow. Univ. of Illinois, Urbana, 1962. 104 pp. \$1.50.

**University of Texas, Bureau of Economic Geology.** *Publication*, No. 6120: "The Ouachita system," Peter T. Flawn *et al.* (401 pp. Maps. 1961); *Report of Investigations*, No. 43: "Mineral resources of South Texas, region served through the port of Corpus Christi," Ross A. Maxwell (140 pp. Maps. 1962); No. 44: "Stratigraphic names in the Midway and Wilcox groups of the Gulf coastal plain," William L. Fisher (reprinted from *Transactions of the Gulf Association of Geological Societies*, vol. 11, pp. 263-295. 1961). The University, Austin.

**World Health Organization.** "Radiation and health" (reprinted from *WHO Chronicle*, 1961. 42 pp. \$0.30); "WHO and mental health 1949-1961 (reprinted from *WHO Chronicle*, 1962. 48 pp. \$0.30); *Technical Report*, No. 228: "Evaluation of the toxicity of a number of antimicrobials and antitoxinants (104 pp. \$1.25); No. 231: "Arterial hypertension and ischaemic heart disease, preventative aspects" (28 pp. \$0.30); No. 232: "Chemotherapy of cancer" (52 pp. \$0.60); No. 233: "Expert Committee on Filariasis (*Wuchereria* and *Brugia* infections) report," (52 pp. \$0.60); No. 235: "The role of public health officers and general practitioners in mental health care" (56 pp. \$0.60); No. 236: "Planning, organization, and administration of a national health laboratory service" (48 pp. \$0.60); No. 237: "Requirements for biological substances. pt. 7. Requirements for poliomyelitis vaccine (oral)" (32 pp. \$0.30). WHO, Geneva Switzerland, 1962 (order from Columbia Univ. Press, New York).