book is so highly specialized and technical, it is regrettable that the author did not include an extensive glossary of the symbols and notation used.

A personal point of regret was that, although the author mentions that in many modern problems in physics or astronomy it is necessary to abandon the requirement of normalizability of probability, he did not discuss some applications to cases where this impossibility of normalizing the probability would occur. This problem is, for instance, important for the discussion of the attainment of equilibrium in open star systems.

Concluding I can only congratulate the author and the publishers on producing this volume which for quite some time will be the main reference book for mathematicians on stochastic processes, if the signs do not deceive me.

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Inorganic Thermogravimetric Analysis. Clément Duval. Amsterdam–Houston: Elsevier, 1953. 548 pp. Illus. $11.00.

Occasionally a book appears which attracts special attention because an old subject is treated from a new approach. Here for the first time in a monograph is given a complete study of the stability to heating between 20 and 1000° C of 967 precipitates which have been proposed for inorganic gravimetric analysis. The results of the investigations of the author and his co-workers have been published in *Analytica Chimica Acta*. There is also a historical review of the development of the subject since the thermobalance was introduced by Honda in 1915, and a complete description of the Chenevard balance which was used.

The pyrolysis curves show the temperature range in which relatively constant composition is obtained. In some cases it is now evident that excessive heating of precipitates with a blast lamp to obtain a constant weight is unnecessary. For example, magnesium ammonium phosphate reaches a constant weight in an open crucible above 477° C and it is useless to ignite at 900° C. On the other hand, the asbestos mat on a Gooch crucible remains constant after the water is driven off as far at 283° C. Above this temperature there is a gradual loss of water which is complete only at 879° C.

The pyrolysis curves for all the precipitates are given in 152 illustrations with a critical discussion in brief paragraphs for each of the precipitates. There are also 980 references to the literature. About 210 methods were selected as satisfactory for gravimetric determinations and about 80 new methods were brought to light.

The book is well written and is undoubtedly a valuable source book for those interested in inorganic gravimetric methods.

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Books Reviewed in THE SCIENTIFIC MONTHLY

October

Africa: A Study in Tropical Development. L. Dudley Stamp. New York: Wiley; London: Chapman & Hall, 1953. 568 pp. Illus. + maps. $8.50.
Reviewed by George B. Cressey.

Explorations in Science. Waldemar Kaempffert. New York: Viking Press, 1953. 296 pp. $3.50.
Reviewed by G. G. Simpson.

The History of Astronomy. Giorgia Abetti, trans. by Betty Burr Abetti. New York: Schuman, 1952. 338 pp. Illus. $6.00.

Astronomy for Everyman. Martin Davidson, Ed. New York: Dutton, 1953. 494 pp. Illus. $5.00.
Reviewed by James Stokley.

Man and the Chemical Elements. J. Newton Friend. New York: Scribner, 1953. 354 pp. Illus. + plates. $6.00.
Reviewed by Hubert N. Alyea.

Hungry People and Empty Lands. S. Chandrasekhar. Baroda, India: Indian Institute for Population Studies, 1952. 306 pp. Illus. $3.50.
Reviewed by Warren S. Thompson.

Man's Foods. J. B. Jensen. Champaign, Ill.: Garrard Press, 1953. 278 pp. $4.50.
Reviewed by Martha F. Trulston.

Elements of Cartography. A. H. Robinson. New York: Wiley, 1953. 254 pp. Illus. $7.00.
Reviewed by George F. Jenks.

Weather Inference for Beginners. D. J. Holland. New York: Cambridge Univ. Press, 1953. 196 pp. Illus. $6.00.
Reviewed by Charles C. Bates.

Adventures in Artificial Respiration. Peter V. Karpovich. New York: Association Press, 1953. 303 pp. Illus. $7.50.
Reviewed by William R. Amberson.

Our Physical Environment: A Problem Approach. Leonard W. Gaddum and Harold L. Knowles. Boston: Houghton Mifflin, 1953. 625 pp. Illus. $5.50.

Man and His Physical Universe. Richard Wistar. New York: Wiley, 1953. 488 pp. Illus. $4.75.
Reviewed by W. Paul Gilbert.

Conferences on Drug Addiction Among Adolescents. New York: Blakiston, 1953. 320 pp. $4.00.
Reviewed by Manfred S. Guttmacher.

Spadework in Archaeology. Leonard Woolley. New York: Philosophical Library, 1953. 124 pp. Illus. + plates. $4.75.
Reviewed by Carleton S. Coon.

The Social Insects. O. W. Richards. New York: Philosophical Library; London: Macdonald, 1953. 219 pp. Illus. + plates. $4.75.
Reviewed by Charles D. Michener.