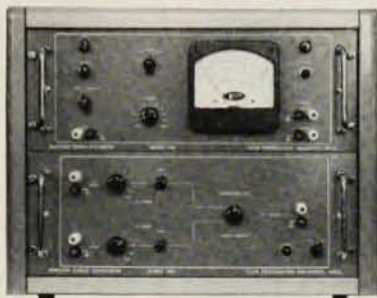


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and really
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Henry James

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the past decade or more, interest in the possibilities of using machines to handle scientific information has been growing rapidly, and chemists have developed a number of notation systems for coding chemical structures for mechanized information processing. The notation system devised by G. Malcolm Dyson of England, now director of research for the Chemical Abstracts Service, formed the basis of the international standard which was adopted in 1959 by a commission of the International Union of Pure and Applied Chemistry and which is expected to be issued soon in a revised edition. This and other notation procedures will be examined in the course of the NAS-NRC study.

Individuals and organizations working with chemical notations are invited to send information about the systems they employ to Dr. I. Moyer Hunsberger, Dean, College of Arts and Sciences, Bartlett Hall, University of Massachusetts, Amherst, Mass.

Compilations

Three booklets containing tables of coefficients for the integration and differentiation of certain classes of functions have recently been published by Convair-Astronautics Division of General Dynamics Corporation of San Diego, Calif. *Tables of Osculatory Integration Coefficients* by Herbert E. Salzer, Dexter C. Shoultz, and Elizabeth P. Thompson contain listings of the integrals of osculatory interpolation coefficients and of two-, three-, four-, and five-point coefficients. *Tables for Bivariate Osculatory Interpolation over a Cartesian Grid* by Herbert E. Salzer and Genevieve M. Kimbro tabulate the 2-5-point coefficients for the bivariate case. *Tables of Coefficients for Obtaining the Second Derivative Without Differences* by Herbert E. Salzer and Peggy T. Roberson list 5-9-point coefficients. Each booklet begins with a consideration of the functions and processes involved and an explanation of the tables and instructions for their use.

Two new reports on gas kinetics have been released by the Office of Technical Services. The first, written for the Air Force by the Gas Dynamics Laboratory of Northwestern University, reviews the fundamental features of the effects of "real gas" (created in air by aircraft and rockets in high-speed flight) and emphasizes high-temperature effects, including the thermal and caloric equations of state, basic effects in flow processes, and the speed of sound in reacting gases. The second, compiled by a group at Cornell University for the Wright Air Development Division, reports a project to measure the rates and study the mechanisms of the pyrolysis of gases at high temperatures, and to obtain experimental data on the efficiencies of energy transfer between molecules during collisions.

The two publications, *The Kinetics of Gases* (PB 161 908) \$3.00, and *Kinetics of Reactions in Shock Tubes* (PB 161 904) \$2.50, are available from the Office of Technical Services, Business and Defense Services Administration, US Department of Commerce, Washington 25, D. C.