+ HOR′, is accelerated by the addition of an acid (HCl) or of an ammonium salt (NH_4Cl), simply because the reaction substance is not the whole imino ester but only its positive ions. A constant is obtained on the basis of the isothermal equation: $dx/dt = K \times C_{\text{pos. ester ions}} \times C_{NH_3}$, the velocity being always proportionate to the concentration of the positive ester ions, although they form only a very small but rigorously calculable part of the ester used. The results are in entire accord with the author's theory of the catalysis of esters, cane-sugar, etc., under the influence of acids.

Freezing Points of Mixtures of Sulphur and Iodine: Alexander Smith and C. M. Carson. (By title.)

This report has been transmitted through Professor Charles L. Parsons, Secretary of Section C.

C. E. Waters,
Press Secretary.

(To be continued)

The Association of American Geographers

The third annual meeting of this association was held December 31, 1906, and January 1, 1907, at the building of the American Geographical Society, in New York City. The president, Mr. Cyrus C. Adams, presided, and delivered the president's address upon the subject, 'Some Phases of Future Geographical Work in America.'

Professor I. C. Russell, member and councilor of the association, died during the year, and a memorial was read by Professor W. M. Davis. The Monday evening session was devoted to the following addresses: Mrs. Leonidas Hubbard, Jr., 'The Rapids of Labrador Rivers'; Dr. F. A. Cook, 'The Ascent of Mount McKinley'; Mr. Alfred H. Brooks, 'A Meeting with Captain Amundsen at Nome.'

In the general program the following papers were read by their authors:

William Churchill, 'Insularism, and the Nesiote Type'; A. L. Rotch, 'The Circulation and Temperature of the Atmosphere at Great Heights above the Tropical Atlantic'; Charles C. Adams, 'The Evolution of the Isle Royal Biotic Environment'; G. E. Condra, 'The Opening of the Indian Territory'; I. Bowman, 'The Deserts of Peru and Chili in South American History'; E. N. Transeau, 'The Need of Evaporation Data in Plant Geography'; William Libbey, 'Problems of the Panama Canal'; W J McGee, 'The Prospective Conquest of the Mississippi River'; Angelo Heilprin, 'Guiana and Venezuela as a Field for Geographical Exploration, with some Observations on a Recent Visit to the Essequibo Wilderness'; G. W. Littlehales, 'The Nature and Purpose of the Chart Publications of the Navy Department, and their Geographical Extent'; E. O. Hovey, 'The Isthmus of Tehuantepec'; Alfred H. Brooks, 'Railway Routes in Alaska'; H. L. Bridgeman, 'The International Polar Congress at Brussels'; E. Huntington, 'Influence of Change of Climate upon History'; R. DeC. Ward, 'The Meteorology of the North and South Polar Areas'; W. M. Davis, 'Place of Coastal Plains in Systematic Physiography'; W J McGee, 'The American Deserts and their Reclamation'; W. M. Davis, 'Geography as defined by Hettner'; F. P. Gulliver, 'The Orientation of Maps'; A. P. Brigham, 'Geography for College Entrance'; Collier Cobb, 'Hatteras Island and its Shifting Sands'; D. W. Johnson, 'The Texture of Topography'; W. M. Davis, 'The Eastern Slope of Mexico'; H. E. Merwin, 'Land Forms as Plant Controls'; Cleveland Abbe, 'A Study of Airy's Projection by Balance of Errors'; A. W. Grabau, 'Classification of Marine Life Districts.'

The annual dinner was held on Tuesday

evening at the Hotel Colonial. The next annual meeting will be held in Chicago.

Professor Angelo Heilprin is president for the year 1907. The complete list of officers has already been published in SCIENCE.

ALBERT PERRY BRIGHAM,
Secretary

SCIENTIFIC BOOKS

Petrogenesis. By Dr. C. DOELTER. Braunschweig, Friedr. Vieweg and Son. 1906. Pp. xii + 261; 1 plate and 5 figures. 8vo. Paper. 7 M.

This is Volume XIII. of a series of monographs on natural history and mathematics entitled 'Die Wissenschaft.' In it Professor Doelter, of the University of Gratz, presents an outline of the knowledge and theories concerning rocks of all kinds. The comprehensive treatise is put in the form of fourteen chapters, the first ten of which deal with volcanic rocks, the last four with contact metamorphism, the formation of the crystalline schists, sediments, and chemical precipitates. One hundred and fifty pages are devoted to the problems of igneous rocks, fifty-two to those of the crystalline schists.

The method of treatment is to present the views of various geologists or petrographers on different topics, sometimes with comments and criticisms, sometimes without. The citations are many, but from the nature of the task, perhaps, they are not always complete as to number or entirely satisfactory as to substance in some instances. However, there is a great fund of information for the student and an abundance of valuable bibliographic references. The scope of the work is so large that it is not possible to review the book with the thoroughness it deserves without a very considerable expenditure of time and space. And it may be sufficient to point out the contents of the several chapters in a general manner.

The first is devoted to a consideration of the theories and observations concerning the interior of the earth and the problem of vulcanism. The physics of the interior of the earth is discussed and the observations of Barus and Tammann with reference to melting points and pressure are cited. The possible source of molten magmas, and the causes and mechanics of their eruption are considered, including the rôle of vapors and the temperature of lavas.

The second chapter treats of the forms of volcanic rocks as conditioned by their solidification on the surface of the earth or at some depth below it, and also the influence of vapors upon the crystallization. The discussion of laccolithic forms reveals a curious attitude toward the original definition of the term by Gilbert. In connection with the problem of intrusion the views of Kjerulf and of Michel-Lévy are presented, and those in opposition are credited chiefly to Brögger. Daly's theory is also stated.

The third chapter has to do with the structure (texture) of eruptive rocks. The porphyritic texture is discussed at length with special reference to Fouqué and Michel-Lévy's views and to those of Zirkel. A number of petrographers are cited in connection with the texture of phanerocrystalline rocks, chiefly Brögger, Lane, Teall and Vogt. Spherulitic texture receives considerable attention, the views of Rosenbusch and of others being noted. The question of the relation between age and texture is considered, and the textural and constitutional facies of rock bodies are described.

In the fourth chapter the relation between the mineral composition and the chemical composition of igneous rocks is discussed. The view of Lagorio, Vogt, Morozewicz and Iddings are commented on. The work of Osann in correlating chemical analyses of rocks is reviewed, and the methods of expressing the chemical composition of rocks by means of diagrams are described to some extent, especially those of Brögger and Becke.

The fifth chapter deals with the problem of the differentiation of magmas. Various theories are set forth briefly and commented on. The term is also applied to the crystallization of minerals from molten magmas. Experi-