

MERCK'S 1907 INDEX. THIRD EDITION. An encyclopedia for the chemist, pharmacist and physician, stating the names and synonyms, chemical nature and formulas, physical form, appearance and properties, melting and boiling points, specific gravities and methods of testing, physiological effects, therapeutic uses, modes of administration and application, ordinary and maximum doses, incompatibilities, antidotes, special cautions, hints on keeping and handling, etc., of the chemicals and drugs used in chemistry, medicine and the arts. Merck & Co., New York.

The chief difference between this and the previous editions consists in the introduction of a large number of crude drugs and the omission of exact price quotations. The approximate price of any chemical listed in the Index can be easily found by a system of numbers as explained in the preface. The large amount of useful information in a very concise form should make the book very valuable to chemists, physicians and pharmacists.

H. M. GORDIN.

SIX LECTURES ON THE THERMODYNAMIC POTENTIAL AND ITS APPLICATION TO PROBLEMS OF CHEMICAL AND PHYSICAL EQUILIBRIUM, INTRODUCED BY TWO LECTURES ON CONCENTRATED SOLUTIONS AND OSMOTIC PRESSURE. BY J. J. VAN LAAR. Braunschweig, F. Vieweg & Son, 1906. Price 3.50 marks.

If one should enter a staid house of worship and without previous warning find in the pulpit the Reverend Bill Sunday exhorting the congregation with coatless harangue, he might experience the same surprise and shock as comes to the traveler in the austere realm of thermodynamics when he first peruses this little book of van Laar's. From the cold page of print we probably get little idea of the fervor with which these lectures were originally delivered. But what the printer could do he has done. The exclamation point is the favorite mark of punctuation, and the print becomes more emphatic with the growing intensity of the author, until in the peroration it culminates in a type of such size and blackness as a yellow journalist might view with pride.

In the first chapter the author discusses the dangers that first arise when the laws of dilute solutions are applied to concentrated solutions. With special severity he deals with the hydrate numbers which Jones has calculated, by first assuming that the freezing-point lowering of every solution really follows the law of van't Hoff, and then finding the degree of hydration which would account for any observed discrepancy. "In this way", says the author, "we can prove anything." The force of this criticism is, however, to some extent lost when in the second chapter the author himself makes a calculation in which unconsciously, he uses a method of reasoning which is identical in principle with that of Jones, and somewhat less justifiable. He assumes that the physical behavior of any simple liquid can be calculated from that of any other simple liquid. The fact that this is not true of most liquids, he ascribes to association, and from the discrepancy between the calculated behavior and that observed, he calculates the degree of association. Thus he states