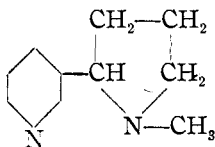


tions. *l*-Nicotine, prepared synthetically, appears to be slightly different from natural *l*-nicotine. This synthesis establishes the correctness of the formula proposed by Pinner.



Through the investigations of Pauly (*Ber.*, **37**, 379), Jowett (*Trans. Chem. Soc.*, **85**, 192), and of Bertrand (*Ann. Institute Pasteur*, **18**, 672) the synthesis of adrenaline is fast approaching completion.

NEW BOOKS.

LANDOLT-BÖRNSTEIN PHYSIKALISCH-CHEMISCHE TABELLEN. Herausgegeben von DR. RICHARD BÖRNSTEIN und DR. WILHELM MEYERHOFFER. Berlin. Verlag von Julius Springer. 1905. Price, 36 marks.

The first edition of this indispensable work was published in 1883, the second in 1894, and the third has just appeared. In the first edition, 110 tables, occupying 246 pages, were prepared by six contributors. In 1894, there were 208 tables, occupying 560 pages, with seventeen contributors. The present edition contains 264 tables in 857 pages, with forty-seven contributors.

The increase in the variety of subjects tabulated is somewhat more than that suggested by the increase from 208 to 264 tables, for sometimes half a dozen or more tables in the second edition are counted as one in the present edition. So also, the 52 per cent. increase in the number of pages is much less than the actual increase in the amount of type set. The standard tables of the earlier edition have been given with type precisely equal in size to those used before, but some tables have been given in the more compact and convenient form in which six-place or seven-place logarithms are always printed, and some of the new matter is given in type which gives a fourth more lines on a page.

Like the first edition, the book gives tables for the reduction of the observations required by physical chemistry, and also a collection of the physical constants of this branch of chemistry, as well as a reference to the source of each. But the character of the book is so well known that detailed description of it is not required.

Some few subjects have called for no enlargement, like tables for reduction of volumes of gases to standard conditions. Such subjects as Elasticity, Capillarity, Viscosity, Thermal Expansion, Index of Refraction, each require about one-half more space than in the edition of 1894. Tables of Vapor-pressure, of Solubilities, and of Thermochemistry, each take about three times the former space. The most interesting point of difference between the second and third editions is seen in the tables on Solubilities. The seventeen pages entitled "Solubility of Salts.....in Water" in the edition of 1894, have, in the present edition, been transformed, by the results of studies guided by the phase rule, into sixty pages entitled "Equilibrium between Water and Inorganic Substances," and containing about forty diagrams exhibiting illustrative curves.

The tables of Electrical Conductivity have been much improved, but with some compression. Changes in other matters hardly call for specific mention.

This collection of tables would be indispensable even if the execution had left something to be desired. But the whole work of collection and selection, and editing, has obviously been performed with the thoroughness, the good judgment, and the skill and accuracy, which we had learned confidently to expect from its distinguished editors and from the contributors whom they should select.

In the first edition, Landolt's initial appeared at the bottom of not quite one-third of all the pages, and Börnstein's on nearly two-fifths. In the present edition, Landolt's name appears only in the title. The name of Börnstein, sometimes accompanied by another, appears on many more pages than before, and the third editor, Meyerhoffer, contributes about as many pages as did Landolt twenty years ago. Chemists feel towards the editors of 1883 and 1894, and will feel towards the editors of 1905, a gratitude which they would be glad of some opportunity to express, and congratulate them on the successful completion of a work so admirable in plan and so satisfactory in execution.

Good presswork and sound and durable paper do credit to the publisher; the binding is of doubtful durability.

EDWARD W. MORLEY.

RADIUM AND RADIOACTIVE SUBSTANCES. Their Application Especially to Medicine. By CHAS. BASKERVILLE, PH.D., Professor of Chemistry