

ently, at least, not identical with those required by the Mass-Action Law. The author calculates from the empirically determined exponents that on mixing hundredth-normal solutions of potassium and sodium chlorides the dissociation, and therefore the conductivity, of each salt should be reduced over one per cent. An experiment made by A. T. Lincoln showed that, instead of the theoretical decrease, an increase of 0.8 per cent. occurs.

ANALYTICAL CHEMISTRY.

ULTIMATE ANALYSIS.

H. P. TALBOT, REVIEWER.

The Technical Estimation of Zinc. BY ALBERT H. LOW. *J. Am. Chem. Soc.*, 22, 198-202.—The ore is treated with nitric acid, first with the addition of potassium nitrate, later with that of a cold saturated solution of potassium chlorate in nitric acid, and the whole is evaporated to dryness. The residue is treated with an ammoniacal solution of ammonium chloride, the filtered solution made acid with hydrochloric acid, and, after the removal of the copper and cadmium by sulphuretted hydrogen, the zinc is titrated for by means of potassium ferrocyanide solutions, using uranium nitrate as an indicator. When cadmium is absent, the copper may be thrown out by means of test lead.

The Repeated Use of the Double Chloride of Copper and Potassium for the Solution of Steel or Iron in Estimating Carbon. BY GEO. WM. SARGENT. *J. Am. Chem. Soc.*, 22, 210-213.—The author finds that if chlorine is passed into the double chloride solution after it has been used to dissolve iron, it regains its color and is more energetic in its solvent action than when freshly prepared. As many as eleven portions of drillings have been treated successfully with the same solution, by regenerating it each time after use. Oxidation by means of an air current, or by electrolytic methods, was less successful than that brought about by passing chlorine gas into the solution.

Notes on Selenium and Tellurium. BY EDWARD KELLER. *J. Am. Chem. Soc.*, 22, 241-245.—A method for the quantitative separation of selenium and tellurium is based on the fact that sulphur dioxide will throw down selenium alone from cold solutions of the two elements containing about 80 per cent. by volume of concentrated hydrochloric acid, or one hundred times as much acid as tellurium.