ter on gas analysis logically includes the handling of organic gases and vapors. American readers may be interested to know that the author describes the use of as much, or more, apparatus of American, as of British, manufacture.

A feature which should merit the commendation of most readers is the inclusion of realistic chapters on the theory and practice of such important separation techniques as ion exchange, chromatography, and solvent extraction. An excellent short chapter on inorganic microgravimetric and microtitrimetric analysis is frosting on the cake. As with the book of Charlot and Bezier, a *very* brief chapter on errors in quantitative analysis "exists"; in a minimal sense it is acceptable, but unexceptional. In a work of this magnitude, the inclusion of an extensive and well organized table of contents, appendix, and index are worthwhile features.

Objection may be raised to the author's conservation of space by omitting specific literature references throughout the text, though selected bibliographies follow each chapter. A more serious objection, related to use as a textbook, concerns the absence of any numerical problems. But some instructors prefer to dispense their own problem material, and the textual exposition of theory often does include typical calculations.

A good treatment of procedures for the analysis of complex materials (ferrous and non-ferrous alloys, limestone, silicate mineral, etc.) is included. The procedure given for the analysis of a silicate mineral provides one example of the struggle between modernism and classicism. Classicists may resent the abbreviated description given the old approach to this analysis and the greater attention given a streamlined substitute. Neither the NaOH fusion nor the Berzelius (HF + H_2SO_4) decompostion specified have quite the universality of applicability of the corresponding Na_2CO_3 fusion or J. L. Smith method. But the use of a Berzelius dissolution with the EDTA determinations of Ca and Mg and flame photometry for Na and K must certainly conform with more typical modern practice.

This reviewer is conservative enough, however, to join the classicists' club in bemoaning the use of a silica assay in a silicate mineral *via* a low temperature drying form of quinoline silicomolybdate. But the majority of Dr. Vogel's innovations are not this drastic.

Anyone concerned with quantitative inorganic analyses should be interested in this book. Those concerned with the teaching of this subject could seriously consider this text as a worthy guide for two semesters of work. Dr. Vogel is to be congratulated on his uniquely "modern" approach *with* due regard to the basic and the "classic."

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