an instrument can only be obtained by a richly endowed laboratory." His object is, therefore, to simplify the method so as to bring the apparatus within the reach of laboratories of only moderate equipment. The method proposed can scarcely be described here. Tests made with it in recording the infra-red spectra of various flames, appear, however, to be satisfactory. The author's aim can perhaps best be stated in his own words: "To construct an apparatus which shall bear the same relation to that of Langley as does the direct vision spectroscope to the larger instruments of its class."

On the Electrolytic Conductivity of Concentrated Sulphuric Acid: By K. E. GUTHE and L. J. BRIGGS. The authors have determined the conductivity of strong sulphuric acid at different temperatures and concentrations, with especial reference to the concentration corresponding to the hydrate $H_2SO_4+H_2O$. Measurements were made by the bridge method with an alternating current, a sensitive dynamometer being used instead of a telephone. The results are given in tables, and also in the form of four curves, which show the relation between molecular volume and molecular conductivity at temperatures of 0°, 10°, 18° and 25°. Each of the four curves has a well-marked minimum at the molecular volume 32.1. If curves are drawn with concentrations instead of molecular volumes the minima do not occur at the same points. From this the authors draw the important conclusion that 'it is not the concentration but the molecular volume which determines the conductivity of the acid.' Interesting results are obtained for the conductivity of the crystalline hydrate $H_2SO_4+H_2O$. The values obtained are perfectly definite, and appear to be free from errors due to the presence of unsolidified acid. The conductivity is found to be much smaller than that of the liquid, even when the latter is undercooled. A rapid diminution in resistance is, however, noticeable as the temperature approaches the melting point (7°.5).

Book Notices. HELM: Grundzüge der Mathematischen Chemie. OSTWALD'S Klassiker der Exacten Wissenschaften. MACH: Popular Science Lectures. Proceedings of the Electrical Society of Cornell University. NABER: Standard Methods in Physics and Electricity criticised.

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The Great Frozen Land. FREDERICK GEORGE JACKSON. London and New York, Macmillan & Co. 1805. Pp. xviii+297. $4.50.

Climate and Baths of Great Britain. (Vol. I.) Being the report of a committee of the Royal Medical and Chirurgical Society of London. London and New York, Macmillan & Co. 1895. Pp. xvi+640. $6.50.

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The Beginnings of Writing. WALTER JAMES HOFFMAN. New York, D. Appleton & Co. 1895. Pp. xiv+209. $1.75.

Frail Children of the Air. SAMUEL HUBBARD SCUDDER. Boston and New York, Houghton, Mifflin & Co. 1895. Pp. viii+279. $1.50.

Alternating Electric Currents. EDWIN J. HOUSTON and A. E. KENNELLY. New York, The W. J. Johnston Co. 1895. Pp. 225. $1.00.

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