rant the following conclusion: "In view of the incidence of death and paralysis among the experimental animals and particularly because of the nine rabbits and one monkey which showed the histological lesions of encephalitis after being bitten by the mosquitoes, we feel that the work already done strongly indicates that the viruses used have been transmitted by *A. aegypti,* but that further investigation is required to furnish absolute proof."

In spite of the incomplete nature of the work at that time it was decided to publish the results in the hope that they might possibly throw some light on the source of the St. Louis epidemic of encephalitis, which was then at its height.

The experiments mentioned have been continued until the present, and while we still feel that some infectious agent may have been transmitted, we have not been able to obtain more definite evidence of the transmission of the herpetic viruses or to add anything that would confirm the conclusion drawn from the earlier experiments.

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AN ENCYCLOPEDIA OF CHEMICAL REACTIONS

FOR more than five years, with the help of numerous graduate students, the author has been compiling data on the chemical properties of various elements and compounds, expressing the reactions by means of formula equations.

This work was started because of the lack of facilities for quickly locating reaction data. Hours and even days are consumed in searching the literature concerning information about some suspected reaction, and yet, when the search is completed, the probability is that authentic data upon this very reaction, published somewhere, have not been encountered.

The aim with this encyclopedia is to make it complete, so that it will include all accredited chemical literature in every language covering the inorganic field as well as a portion of the organic. However, the record for each reaction included in the encyclopedia is limited to the following concise entry: First, giving the symbol or formula of the reacting substance, alphabetically arranged. Second, in a marginal space to the left, is printed the symbol or formula of the reagent with which the substance undergoes a chemical change. Third, a brief statement of the conditions governing the reaction is included, which also names the products reacting and the products formed. Fourth, a balanced equation follows, expressing by symbols and formulas the complete reaction which may occur in one or more steps. Fifth, the name of the person or persons who made the original contributions upon this reaction, where and when these records were published, together with reference to some accessible abstract of the original.

The entire record for each reaction is placed upon a card 10×14 centimeters and sent to the central office for classification. All records are stored in card index files until a complete digest of all journals has been received, whereupon the problem of publication will arise.

The following entries show the plan of the completed work:

ALUMINUM

No. 74 c̄ $Ba(OH)_2$ (c̄ means with)	*Al* Barium aluminate is formed when a hot solution of barium hydroxide reacts with aluminum. $2Al + Ba(OH)_2 + 7H_2O =$ $Ba(AlO_2)_2 \cdot 5H_2O + 3H_2$ Allen & Rogers. Am. Chem. Jour. *24,* 304 (1900)
78 c̄ Fe	*Al* Iron-gray, dense, lance-shaped crystals are obtained when one part of iron and three parts of aluminum are melted together and crystallized from 2% hydrochloric acid. $3Al + Fe = FeAl_3$ Brunck. Ber. *34,* 2733 (1901)
580 c̄ Na_3AsO_4	$Al_2(SO_4)_3$ Aluminum arsenate is formed when aluminum sulfate reacts with sodium arsenate at 200° C. $Al_2(SO_4)_3 + 2Na_3AsO_4 =$ $2AlAsO_4 + (3Na_2SO_4)$ Coloriano. Compt. rend. *103,* 273 Ber. *19,* 660 (abs.) 1886.

CARBON

59 c̄ H_2	*C* Dry hydrogen passed over pure carbon mixed with 4% by weight of platinum sponge at a temperature of 1150°, the gas flowing at the rate of 1000 to 1100 cc per hour, produces methane. $C + 2H_2 = CH_4$ W. A. Bone & H. F. Coward, J. Chem. Soc. *97I,* 1219 (1910)
400 c̄ $I_2 + K_2S$	*KCN* A weak solution of iodine reacts with a mixture of potassium cyanide and potassium sulfide to give potassium thiocyanate. $KCN + I_2 + K_2S = KCNS + (2KI)$ W. I. Sharwood, J. Am. Chem. Soc. *19,* 430 (1897)

A more complete discussion of this project was published in the October, 1933, *Journal of Chemical*

Education (Vol. 10, page 614) of which reprints are available. The following periodicals have already published more or less extensive discussions of the encyclopedia and two others indicated their intention to do so: *Science News Letter,* News Edition of *Industrial and Engineering Chemistry, Journal of the Society of Chemical Industry,* London, *Journal of Canadian Chemistry and Metallurgy,* Toronto, and *Chemicky Obzor,* Prague.

The plan, as outlined, has the hearty endorsement of many leading chemists, and several persons in remote places have written for abstracting reservations. Five persons, excluding the author, are at present actively engaged in abstracting chemical literature for this encyclopedia. All of these, but one, are located outside of Morgantown. It is hoped that this number will rapidly increase as the project becomes known and its value realized. The success of the enterprise is only possible through wide publicity and the securing of ample abstracting service to make the work exhaustive and international in character.

When the compilation of all known reaction data is complete, the records will be published, and arrangements made to perpetuate the work by suitable supplements. Any one wishing to contribute to the success of this undertaking may obtain reprints and other particulars by addressing the author at Morgantown, W. Va.

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THE PARSELENIC CIRCLE

THE "peculiar optical phenomenon" mentioned by Professor A. L. Fitch, of the University of Maine, in the April 27 issue of SCIENCE, was reported to me in correspondence from Professor M. F. Jordan, of the Department of Astronomy of the same institution, on February 28.

I am indebted to Dr. C. F. Brooks, of the Blue Hill Meteorological Observatory, for the information that the phenomena in question are evidently the relatively rare parselenic circle and parselenae of 22° and 46°. The circle is due to the reflection of moonlight from the vertical faces of ice crystals. It is, of course, distinct from the usual lunar halo and the parselenae due to diffraction. The optics and geometry of a parselenic circle, which corresponds to solar phenomenon, parhelic circle, is adequately presented in Humphreys' "Physics of the Air" (2d edition, 1929, pages 519–520).

As I have not yet seen a reply to Professor Fitch's inquiry for information, I am taking the liberty of communicating the above.

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THE COST OF GERMAN PUBLICATIONS

THE note by Benjamin Harrow[1] regarding the cost of "Beilstein," Suppl. Vol. 13–14 is somewhat startling. The figure quoted—$60.55—is in terms of sixty-cent dollars, however. On the old basis the price would be $36.33, almost the same as Suppl. Vol. 11–12.

Perhaps a better illustration of Professor Harrow's point would be the *Zeitschrift für physikalische Chemie,* which, until 1924, published 3 to 4 volumes per year. From 1924 to 1928 the number was almost doubled. Then the journal was divided into two parts. Twenty-two volumes of Teil B, averaging 475 pages each, had appeared by September, 1933, while Teil A continued at the previous rate. The cost, in 1932, was the same for both parts, about $12.50 per volume.

Whether or not this has anything to do with reparations is problematical. May it not be one more result of the change in economic conditions? The swing from a system based on scarcity to one encumbered with abundance is certain to be far-reaching in its effects.

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SOCIETIES AND MEETINGS

THE MISSOURI ACADEMY OF SCIENCE

AN organization meeting, sponsored by a committee on arrangements appointed by Acting President Robbins, of the University of Missouri, was held at the University of Missouri, Columbia, Mo., on Friday, April 13, and Saturday, April 14. The attendance at this meeting was about 250. To this preliminary meeting were invited the science teachers of the approximately fifty universities, colleges and junior colleges of Missouri. The invitation to join the academy will be extended to others who should be interested, such as high-school teachers, physicians, scientists employed by industry or by the state, students, etc. Membership is open to any one interested, and the privilege of joining as a charter member is to be held open until the first annual meeting, which is to be held in the fall of 1934. The membership is already well above three hundred, and is increasing rapidly. Scientific clubs, schools and other organizations may affiliate with the academy by becoming institutional members.

[1] SCIENCE, 79: 410.