

PRESENTATION OF THE MINERALOGICAL SOCIETY
OF AMERICA AWARD TO LOUIS H. AHRENS*

ESPER S. LARSEN, JR., *U. S. Geological Survey, Washington, D. C.*

Mr. President, Ladies, and Gentlemen:

It is a pleasure to a teacher to watch young men and women grow in their science and become the leaders of their group and the promise of the coming generation. Though I have never been a teacher to Dr. Ahrens, I have had the pleasure of seeing him grow from a promising young geochemist to a leader in his field. Dr. Ahrens was trained in South Africa and he received his Doctor of Science degree in chemistry. He early concentrated in geochemistry and especially on the application of spectroscopy to the solution of problems in geochemistry.

He has studied the distribution of some of the rare elements in rocks and minerals, such as the association of thallium and rubidium. He has contributed much to the problem of determining the age of rocks, using chiefly the ratios of strontium to rubidium, and this method of age determination was largely developed by him.

His two papers on ionization potential will prove useful to all geochemists, and his two books on spectrochemical analysis and wavelength tables of sensitive lines are much used by all spectroscopists, especially those working with rocks and minerals.

Much of Dr. Ahren's work has been carried on in South Africa and at the Massachusetts Institute of Technology. He is soon moving to Oxford, England, as reader in Mineralogy. We are sorry to see him leave America, but wish him a happy and successful time in England and shall follow his work with pleasure and profit. We still claim some part of his success!

The Mineralogical Society of America Award is made to Dr. Ahrens because of his contributions to the measurement of geological time and for the particular paper "Measurements of geologic time by the stron-

* Ahrens, Dr. Louis Herman, Dept. of Geology and Geophysics, Mass. Inst. Tech. (from Jan. 1, 1954; Dept. of Geology and Mineralogy, Oxford University). Born in Pietermaritzburg, Natal, Union of South Africa, April 24, 1918. B. Sc. (Geology and Chemistry) Univ. Natal, 1939; D. Sc. (Chemistry) Univ. Pretoria, 1944. Analytical Chemist, Gov't Met. Lab., Johannesburg, 1940-1945; Senior Chemist 1946. Post Doc. Fellowship, S. Afr. Council Sci. Ind. Res., 1947-48. Res. Assoc., M. I. T. 1949-1950; Assis't. Prof. 1950-1953. Fellow Roy. Soc. Chem. Gt. Brit. and Ireland, Geol. Soc. Am., Mineral. Soc. Am., Geol. Soc. S. Afr. mem., S. Afr. Chem. Inst. and Fin. Geol. Soc. Jubilee Gold Medal (1948), Geol. Soc. S. Afr. Spectrochemical analysis, geological age, geochemistry and cosmochemistry.

tium method" (*Geol. Soc. Am. Bull.*, **60**, 217-266, 1949). When he began his work on the strontium method many geologists thought that the wide distribution of strontium in rocks and minerals would make the method impractical but Dr. Ahrens has shown that lepidolite and some other minerals can be used for age determinations by the strontium method. At first he was obliged to make his determinations without correction for primary strontium but later he has been able to secure isotopic data on the strontium and so to correct for primary strontium. He has lately developed the method so that he can use biotite for age determinations. This makes the method applicable to many more rocks.

In the past eight years Dr. Ahrens has contributed a long list of excellent papers, chiefly on the subjects of geochemistry and spectroscopy. He is a steady worker, intensely interested in his problems, and he finishes his work in published papers. We can look with confidence to the future and expect many contributions from him on the determinations of geologic time and the distribution of the elements in rocks and minerals and other problems in geochemistry

Mr. President, I have the honor and the pleasure of presenting Dr. Louis H. Ahrens for the Third Mineralogical Society of America Award.