COPY

AUGUSTUS B. WADSWORTH, M.D.
MANCHESTER
VERMONT

Dear Miss Crowe

Your letter reached me promptly but I have been away visiting; hence my apologies for the delay in answering it. As you well know our work together covers a period of fifteen years from 1930 to 1945 when I retired. It covers a field of basic academic research with practical adaptations to routine services quite new in the development of a public health laboratory. It involved the establishment and development of a department of biophysics. The results of this work - the scope and importance of it - is indicated by the published records and the recognition they have received here and abroad. In this pioneer work you have contributions to your credit which should be a great satisfaction and I personally am grateful to you. If at any time I can be of further service to you I hope you will not hesitate to turn to me.

We have worked in such close collaboration for so many years with one and the same scientific points of view and objectives you must know I would esteem it a privilege to be of any assistance.

Sincerely yours,

/s/ Augustus Wadsworth

April 27, 1948

. . . . . .

Miss M. O'L. Crowe was appointed Oct. 27, 1930 with what promised and later proved to be an outstanding background in physics for our work together until my retirement in 1945. She with her assistants had full charge and deserve full credit for the high standards attained and maintained in her department of biophysical research.

Published studies on the bacterial toxins, antigens, phospholipids and specific carbohydrates together with the varied techniques used in these and related studies indicate the scope and character of the work.

I have no hesitation in recommending her as exceptionally informed and capable in her chosen field.

/s/ Augustus Wadsworth

April 27, 1948

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HERMAN E. HILLEBOE, M.D.
COMMISSIONER OF HEALTH

July 29, 1955

Marguerite O'L. Crowe has been employed as biophysicist with the New York State Department of Health since 1930. Her special field has been spectrometric studies on which she has contributed several publications.

She is a woman of unquestioned integrity and broad culture. In her field she is widely known for the scope of her work and her gift of exposition.

/s/ H. E. Hilleboe

Herman E. Hilleboe, M.D.
Commissioner of Health

Pl 4-5205
1030 Sherman Ave.
Plainfield, N. J.

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DAVID N. KENDALL, Ph.D.
Consulting Chemist and Spectroscopist
Infrared Specialist

January 15, 1954

Miss M. Crowe
New York State Department of Health
Albany, N. Y.

Dear Miss Crowe:

It was my pleasure to hear the excellent paper and demonstration you and Miss Walker gave at the January 5 meeting of the Society for Applied Spectroscopy at the Hotel New Yorker on Chromatography and Fluorescence Spectroscopy on Biological Substances.

I strongly believe your fine paper deserves a wider audience. I know it gave me and I am sure it gave other more conventional spectroscopists many worthwhile new ideas to apply to their own work. Therefore, I respectfully ask you to submit it to Applied Spectroscopy, our journal, for publication.

This journal, Applied Spectroscopy, now goes to over 3,000 spectroscopists throughout the world and is the leading organ in its field.

May we have the pleasure of publishing your article.

Sincerely yours,

/s/ David N. Kendall

David N. Kendall, Asst. Editor
Applied Spectroscopy

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STATE UNIVERSITY OF NEW YORK
NEW YORK STATE COLLEGE FOR TEACHERS
ALBANY

March 19, 1954

Dr. Marguerite O'Loghlin Crowe
Senior Biophysicist
New York State Department of Health
Division of Laboratories and Research
New Scotland Avenue
Albany, New York

Dear Dr. Crowe:

The Departments of Biology, Chemistry, and Physics would be pleased if you and Miss Walker could present a paper and demonstration to our combined groups similar to that which you gave before the Society of Applied Spectroscopy in New York City on January 5 on the subject Fluorescence Absorption Spectroscopy Applied in Studies of Laboratory Products.

The best time for us would be at the Chemistry Department Seminar on Wednesday April 7, 4:30 P.M.

Our Biology and Physics faculty and students were greatly inspired by a visit to the Health Laboratory for a demonstration from you two years ago.

Sincerely,

/s/ C. L. Andrews

C. L. Andrews, Chm.
Department of Physics

CLA/av

M. O'L. Crowe,
11 Woodlawn Avenue,
Albany, New York,
U. S. A.

Titles of reports and papers written as a result of investigation and research undertaken at McGill University, Montreal, Canada (1919-1928)

Keys, D. and Crowe, M. O'L.
The spectroscopic examination of striated electrical discharge through gases in vacuum tubes.
Presented before the Royal Society of Canada, Ottawa, Canada, 1926.

Crowe, M. O'L. (Presented by A. Norman Shaw, F.R.S.C.)
A precision determination of the electrical conductivities of concentrated aqueous solutions of calcium choloride.
Presented before the Royal Society of Canada, Quebec, Canada, 1927.
Synopsis: Measurements are reported in this paper which give the electrical conductivity of solutions of calcium chloride for concentrations from 25% to 50% and for temperatures from 10°C. to 30°C., with a precision of about 5 parts in 10,000, which is greater than that of the values given in existing tables for these concentrations. Descriptions of the methods and of the special precautions required in this type of precision measurement are outlined. The possible uses of these measurements in developing the theoretical treatment of conduction in concentrated electrolytes, and also in the improvement of electrical methods in hygrometry are discussed.

Crowe, M. O'L.
Thesis on:
"The temperature coefficients of electrical conductivity for concentrated solutions of calcium choloride with precision measurements of conductivity for the higher concentrations."
This work was published in the Transactions of the Royal Society of Canada, 1927, 21, Series 3, Section 3.

The values of the specific conductivity of calcium chloride are published in the International Critical Tables of Numerical Data for Physics, Chemistry, and Technology, Vol. VI, page 241 (bottom of Page). Literature, page 255, Nos. 54, 55.

Crowe, M. O'L.
Potential current characteristics of the striated electrical discharge in different gases.
Presented before the Royal Society of Canada, Winnipeg, 1928.
Synopsis: The potential current characteristics for striated discharges in chlorine, potassium, argon, and neon are given. The variation of the position of the striae in these gases with the applied potential has been measured, and the spectra of the light from a striation and the negative glow were in each case taken.

M. O'L. Crowe,
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Albany, New York,
U. S. A.

Titles of the published papers written as a result of investigations and research undertaken at the Division of Laboratories and Research, New York State Department of Health, Albany, New York (1930-1954).

Wadsworth, A.B., Crowe, M. O'L. and Smith, L. A.
Absorption spectra of the carbohydrates of the pneumococcus.
Presented at the meeting of the American Association of Immunologists, Washington, D.C., May 9, 1933.
Journal of Immunology, vol. 26, No. 6 June, 1934, p. 481.

Wadsworth, A. B., Crowe, M. O'L. and Smith, L. A.
The spectroscopic investigation of bacterial toxins: the absorption spectra of the products of C. diphtheriae.
British Journal of Experimental Pathology, 1935, vol. XVI, p. 201.

Wheeler, M. W., and Crowe, M. O'L.
A note on the conditions affecting the production of toxin and porphyrins by the Diphtheria bacillus.
Presented at meeting of Society of American Bacteriologists. New York City, December 28, 1935.
Journal of Bacteriology, vol. 31, No.5 May 1936, p. 519.

Wadsworth, A. B., and Crowe, M. O'L.
A preliminary study of the absorption spectra of cephalin, lecithin and selected antigens.
Presented at meeting of Society of American Bacteriologists, New York City, December 28, 1935.
Journal of Physical Chemistry, vol. 40, No. 6 June 1936, p. 739.

Crowe, M. O'L.
The ultraviolet absorption spectrum curve of phthiocol, a pigment of the human tubercle bacillus.
Journal of Biological Chemistry, vol. 155, No. 2 Sept. 1936, p.479.

Crowe, M. O'L.
The fluorescence spectrum of a pigment elaborated by the diphtheria bacillus.
Proceedings of the Society for Experimental Biology and medicine, 1937, vol. 37, p. 215.

M. O'L. Crowe,
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Crowe, M. O'L.
Fluorescence and absorption spectra of flavin isolated from a toxin culture filtrate of C. diphtheriae.
The Proceedings of the Society for Experimental Biology and Medicine, 1939, vol. 42, p. 212.

Crowe, M. O'L.
A micromethod of chromatographic analysis.
Journal of Industrial and Engineering Chemistry, Analytical Edition, vol. 13, p. 845, (1941).

Crowe, M. O'L. and Walker, A.
A micro method of chromatographic analysis of material in preparation for spectroscopic analysis. A demonstration.
Presented before the 10th Annual Spectroscopic Conference held concurrently with the Summer Meeting of the Optical Society of America at Massachusetts Institute of Technology, Cambridge, Mass., July 20-22, 1942.

Wadsworth, Augustus B. and Crowe, M. O'L.
The spectroscopic investigation of bacterial toxins. II. The ultraviolet absorption spectra and fluorescence of synthetic products in toxigenic and nontoxigenic diphtheria cultures.
Journal of Infectious Diseases, Sept.-Oct., 1943, vol. 73, pp. 106-123.

Crowe, M. O'L. and Walker, A.
Fluorescence and absorption spectral data for pterin-like pigments synthesized by the diphtheria bacillus and isolated by chromatographic analysis.
Presented at the Twenty-Eighth Annual Meeting of the Optical Society of America, Pittsburgh, Pennsylvania, October 7-9, 1943.
Published in the Journal of the Optical Society of America, Vol. 34, No. 3, 135-140, March, 1944.

Continued on page 4

M. O'L. Crowe,
11 Woodlawn Avenue,
Albany, New York,
U. S. A.

Crowe, M. O'L. and Walker, A.
The ultraviolet absorption spectra and other physical data for cardiolipin, a new phospholipid, and lecithin, isolated from beef heart.
Presented at the 30th Annual Meeting of the Optical Society of America, New York City, October 18-20, 1945.

Crowe, M. O'L. and Walker, A.
Fluorescence and absorption spectral data for pigment synthesized by the human tubercle bacillus and isolated by chromatographic analysis.
Presented at the 32nd Annual Meeting of the Optical Society of America, Netherland Plaza Hotel, Cincinnati, Ohio, October 23-25, 1947.

Crowe, M. O'L. and Walker, A.
Chromatographic and fluorescence analysis for the isolation and purification for spectroscopic studies of pigments synthesized by microorganisms. A demonstration.
Presented at Fall Meeting of the American Physical Society (New York State Section), Union College, Schenectady, New York. November 8, 1947.

Crowe, M. O'L.
The chapter (eleven, page 136) on the Spectroscopic and Physical Laboratory which is published in Wadsworth's Standard Methods of the Division of Laboratories and Research of the New York State Department of Health, 3d ed., 1947.

Crowe, M. O'L. and Walker, A.
An inexpensive vacuum evaporation unit for the shadow casting and replica technics used in electron microscopy. 1948.

Crowe, M. O'L. and Walker, A.
Pterin-like pigment derived from the tubercle bacillus. Fluorescence and absorption spectral data for erythropterin-like pigment isolated by ultra-chromatographic analysis.
Science, August 12, 1949, vol. 110, p. 166.

Crowe, M. O'L. and Walker, A.
Coproporphyrin III isolated from the human tubercle bacillus by chromatographic and fluorescence analysis. Fluorescence and absorption spectral data.
British Journal of Experimental Pathology, 1951, volume XXXII, p. 1.

Crowe, M. O'L.
Instrumentation for the detection and measurement of radioactivity. 1951.

Crowe, M. O'L. and Walker, A.
Fluorescence and absorption spectral data and other physical characteristics of xanthopterin-like pigment synthesized by the human tubercle bacillus and isolated by chromatographic and fluorescence analyses.
Presented before the New York Section of the American Physical Society, Corning Glass Works, Corning, New York, U.S.A., April 18-19, 1952.