

## Lost Artifacts?

# IV. The Irving Langmuir Film

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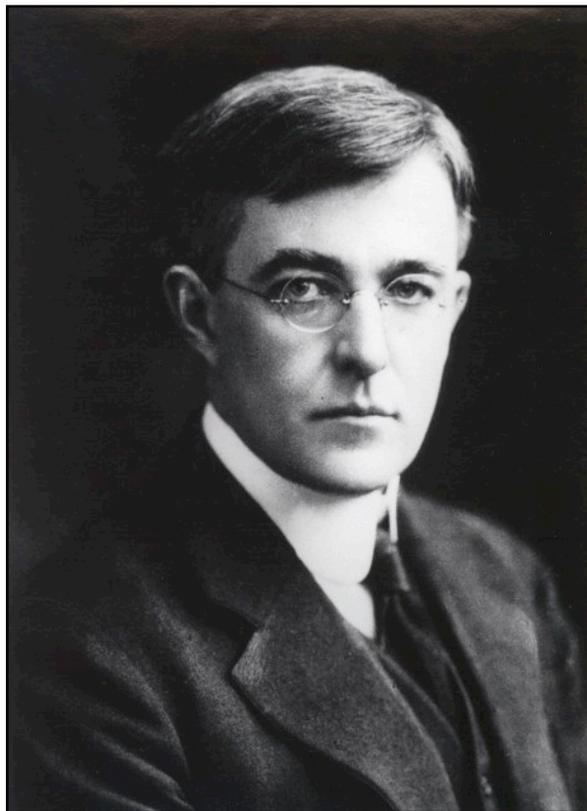
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The May 1931 issue of *The Journal of Chemical Education* contains an unusual article by the famous American surface chemist, Irving Langmuir, entitled "Experiments with Oil and Water" which begins with the following rather curious *Editor's Note* (1):

*The following is a stenographic report from an educational talking motion picture in which Dr. Langmuir accompanies his talk with close-up views of his experiments. Necessarily, there are sections of the text which are ambiguous since in the film Dr. Langmuir would point specifically to parts of the demonstrations. Parenthetical insertions have been made occasionally in the text to clarify certain points, and at other places the points have been illustrated with enlargements from the film. The sound track appears to the left of the pictures as a jagged black line. The film, made with RCA-Photophone equipment, was produced by the Motion Picture Department of the General Electric Company. Dr. Langmuir did not talk from a prepared manuscript.*

The then editor of *The Journal of Chemical Education*, Neil Gordon, had seen the film when it was shown to the members of the Division of Chemical Education at the Columbus, Ohio, meeting of the American Chemical Society on May 1, 1929 and was apparently so impressed that he decided to print a stenographic version of Langmuir's lecture in his journal. As indicated in his introductory editorial comment, the resulting transcript was illustrated by more than 26 enlarged frames taken directly from the film itself. The fact that Gordon also saw fit to explain to his readers the nature of the jagged sound track visible to the left of these prints illustrates just how novel talking movies still were in 1931, the first partial talkie, *The Jazz Singer*, starring Al Jolson, having debuted in October of 1927, only two years before the Langmuir film was shown at the 1929 ACS Meeting.

Both the transcript and the film prints show Langmuir doing a large number of demonstrations illustrating various surface effects using a precursor of the well-known Langmuir-Blodgett trough and spontaneously commenting on them by means of blackboard drawings. In 1932, one year after this article appeared, Langmuir won the Nobel Prize in Chemistry for his



Irving Langmuir (1881-1957)

work on adsorption and surface phenomena. Quite obviously this film is of great historical significance. A restored DVD version would make a wonderful gift for the historically minded chemist, not to mention for the winners of the prestigious ACS Langmuir Prize. The question is whether this film still exists and, if so, where?

### References and Notes

1. I. Langmuir, "Experiments with Oil on Water," *J. Chem. Educ.*, **1931**, 8, 850-866. Reprinted in C. G. Suits, Ed., *The Collected Works of Irving Langmuir*, Vol. 9, Pergamon Press: New York, NY, 1961, pp. 229-246.

*Readers having information relating to the above arti-*

*facts or questions of their own which they would like to see addressed in future columns should send their comments and questions to Dr. William B. Jensen, Department of Chemistry, University of Cincinnati, Cincinnati, OH 45221-0172 or e-mail them to jensenwb@ucmail.uc.edu.*

### **Response to Previous Column**

No responses were received concerning the previous column dealing with the current whereabouts of the 1869 Anna Lea painting commemorating the discovery of alizarin. This may indicate one of three possibilities: 1) the painting is truly lost; 2) its current owner does not want to disclose its present location; 3) its current owner has not seen the previous column. Though nothing has been uncovered concerning the present location of the painting itself, I have discovered some additional information about the artist. Born Anna Massey Lea in Philadelphia in 1844, she was the daughter of

Joseph Lea Jr., a Quaker and influential manufacturer and printer of cotton goods. She studied anatomy at the Women's Medical College in Philadelphia and, after moving with her family to Europe in 1865, studied art under various teachers in Italy, Germany and France. In 1870 the family moved to London, where Lea studied under Henry Merritt, whom she married in 1877. She remained in England after Merritt's death three months later, eventually settling in the village of Hurstbourne Tarrant, where she resided until her death in 1930. Usually described as a Pre-Raphaelite painter, she is best known, under her married name of Anna Lea Merritt, for her Victorian portraits, her allegorical and religious paintings, and her landscapes and floral scenes.

### **Publication History**

Published in the *Bulletin for the History of Chemistry*, **2010**, 35(2), 134