# Proceedings of the Iowa Academy of Science

Volume 43 | Annual Issue

Article 91

1936

# An Opportunistic Laboratory

John A. Eldridge State University of Iowa

Let us know how access to this document benefits you

Copyright ©1936 Iowa Academy of Science, Inc. Follow this and additional works at: https://scholarworks.uni.edu/pias

## **Recommended Citation**

Eldridge, John A. (1936) "An Opportunistic Laboratory," *Proceedings of the Iowa Academy of Science*, *43(1)*, 273-274. Available at: https://scholarworks.uni.edu/pias/vol43/iss1/91

This Research is brought to you for free and open access by the IAS Journals & Newsletters at UNI ScholarWorks. It has been accepted for inclusion in Proceedings of the Iowa Academy of Science by an authorized editor of UNI ScholarWorks. For more information, please contact scholarworks@uni.edu.

Offensive Materials Statement: Materials located in UNI ScholarWorks come from a broad range of sources and time periods. Some of these materials may contain offensive stereotypes, ideas, visuals, or language.

#### 1936]

#### ABSTRACTS

metal but not in a linear fashion. Iron has the most marked effect, .01 per cent iron producing as much increase as 0.5% copper. The temperature coefficient is lowered, depending on the added impurity. The ratio of principal resistivities,  $\varrho_0/\varrho_{90}$ , is about the same as for zinc crystals, i.e. with no added impurities.

DEPARTMENT OF PHYSICS, STATE UNIVERSITY OF IOWA, IOWA CITY, IOWA.

## SOME OBSERVATIONS ON TEACHING BRIGHT STUDENTS

#### C. J. LAPP

During the summer of 1935 bright students who were finalists in the Iowa Academic meet in Iowa high school physics were given college physics throughout the first six weeks of the summer session. These bright boys were under intensive observation during this period. Many unusual reactions were observed.

DEPARTMENT OF PHYSICS,

• STATE UNIVERSITY OF IOWA, IOWA CITY, IOWA.

ON TEACHING THE VERNIER CALIPER

### C. J. LAPP

Fifty students divided into twenty-five pairs were studied. Twenty-five of them were taught by the usual method in laboratory while twenty-five were given instruction on the vernier caliper in the library. The following week both groups were given an actual performance examination. The results are surprising.

DEPARTMENT OF PHYSICS,

STATE UNIVERSITY OF IOWA, IOWA CITY, IOWA.

### AN OPPORTUNISTIC LABORATORY

JOHN A. ELDRIDGE

A laboratory has a joint function (a) to create happy attitudes and (b) to teach subject matter practically and realistically. It

1

Proceedings of the Iowa Academy of Science, Vol. 43 [1936], No. 1, Art. 91 274 IOWA ACADEMY OF SCIENCE [Vol. XLIII

has sometimes been questioned whether the laboratory does act effectively either as inspiration or as a teaching device. The paper describes experiences in a laboratory where the experiments were exactly correlated with the class work, where laboratory manual was dispensed with, where the experiments were usually unconventional.

DEPARTMENT OF PHYSICS,

STATE UNIVERSITY OF IOWA,

IOWA CITY, IOWA.

THE LIQUID STRUCTURE OF THE N-PARAFFINS.

## A. B. CARR

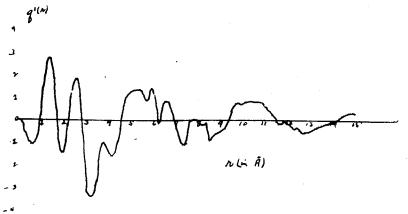
The object of this investigation is to determine whether or not Pierce's density computations compare the more favorably with the hexagonal or the square array.

Professor W. C. Pierce, Department of Chemistry, University of Chicago, in an article in the Journal of Chemical Physics, Vol. 3, pp. 252-255, on Scattering of X-rays by Polyatomic Liquids. n-Heptane says "recent publications in the field of x-ray scattering by liquids have led the writer to the questions:

(a) How much information concerning the structure of single molecules may be obtained from liquids scattering data?

(b) Is the use of the Fourier integral theorem valid for data extending over a small range of  $\sin \vartheta / \lambda$ ?

These computations are concerned with the first question mostly. The number of atoms and their computed distance, (r), from the reference atom were determined for the hexagonal and the square



https://scholarworks.uni.edu/pias/vol43/iss1/91