

1939

Measurement of Relative Humidity by Menas of Thermocouples

C. G. Anderson
Iowa State College

Copyright © Copyright 1939 by the Iowa Academy of Science, Inc.
Follow this and additional works at: <https://scholarworks.uni.edu/pias>

Recommended Citation

Anderson, C. G. (1939) "Measurement of Relative Humidity by Menas of Thermocouples," *Proceedings of the Iowa Academy of Science*: Vol. 46: No. 1 , Article 86.
Available at: <https://scholarworks.uni.edu/pias/vol46/iss1/86>

This Research is brought to you for free and open access by 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.

MEASUREMENT OF RELATIVE HUMIDITY BY
MEANS OF THERMOCOUPLES

C. G. ANDERSON

A discussion is given of the construction and use of thermocouples as wet and dry bulb hygrometers for measuring the vapor pressure of water in small spaces. Experiments for determining the effect of thermocouple form, air velocity, and other factors affecting the reading of the instrument are described.

DEPARTMENT OF PHYSICS,
IOWA STATE COLLEGE,
AMES, IOWA.

PRESENT RÔLE OF ULTRASONIC WAVES IN PHYSICS

VICTOR B. COREY

The following are the significant results of modern researches in ultrasonics with regard to their contributions to theoretical and applied physics. Precision velocity measurements in gases, made over wide frequency ranges by means of the Pierce interferometer serve experimentally to substantiate the kinetic theory of gases; such measurements in liquids, made either by the interferometer, diffraction spectra, or visibility method, offer an independent and exact means for calculation of important physical constants of the liquids, and through detection of velocity dispersion, suggest a point of attack for investigation of liquid structure. Sound field amplitude photographs afford precise measurements of ultrasonic absorption in liquids. Certain physical constants of particular solids can be measured. Industrial applications are mentioned.

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

THE M_5 AND M_4 EDGES OF GOLD IN THE PURE STATE
AND IN A GOLD COPPER ALLOY

J. W. McGRATH

For most of the M_5 and M_4 x-ray absorption edges already measured there is a discrepancy between observed and calculated