MASON



# LETTERS

## to the EDITOR

#### Adage Bites Man

Sir.

There are many among those of us who are trying to help reduce atmospheric pollution who will look at the December number of Physics Today with some concern. In the subtitle of the leading article Physics of Chimneys we read: "Where there's fire there's smoke."

Perhaps we are all misguided evangelists, but we have been preaching that the presence of fire does not necessarily mean the presence of smoke. We have been doing our level best to get people to handle their fuel, select their equipment, and operate their plants-large and small-in such a way that they can have needed heat and power without great plumes of smoke.

WARD F. DAVIDSON

New York, New York

Where there's fire there may be smoke. Our apologies to those who work at minimizing atmospheric pollution.

#### Physicists in Training

Sir

I read with interest the recent article by Marsh White in the November issue of Physics Today. Unfortunately, among the institutions granting PhD degrees in physics, the Catholic University of America has been omitted. In 1948-49 we had 85 graduate students in physics and had granted one PhD degree during the period covered.

KARL F. HERZFELD

Washington, D. C.

The November issue of Physics Today contains an article by Marsh White which leaves many of us here in Rochester puzzled. An examination of the list of institutions granting PhD's in physics on page 17, does not reveal the name of the University of Rochester, which has been granting PhD's in physics for over ten years and now has some 45 graduate students enrolled.

Continued on page 39

Physics Today, a general interest magazine on physics, is published monthly by the American Institute of Physics, Incorporated, at Prince and Lemon Streets, Lancaster, Pennsylvania and is printed in the U.S.A.

Editorial, Production, and Advertising Offices are at the American Institute of Physics, 57 East 55th Street, New York

American Institute of Physics, 57 East 55th Street, New York.
22. New York.
Subscription rates—United States and Possessions, Canada, and Mexico: \$4.00 per year. Elsewhere: add \$1.00 per year for postage. Single copies: 50e.
Change of address should be sent to the Circulation Manager, American Institute of Physics, 57 East 55th Street, New York 22. New York.
Statements and opinions expressed in Physics Today are those of individuals unless indicated as an official position of the Institute. the Institute.
Copyright 1950 by the American Institute of Physics, All

rights reserved.

### JUST PUBLISHED!

A Comprehensive Account of Piezoelectric Crystals-their Investigation, Production and Applications

# PIEZOELECTRIC CRYSTALS

in their relation to

By Warren P. Mason, Ph. D.

Member of the Technical Staff Bell Telephone Laboratories, Inc.

This brand-new book on the science of piezoelectricity, covers clearly and fully all the latest methods and developments of the Bell Telephone Laboratories. Included are the new synthetic crystals DKT and EDT, which have such favorable characteristics that they

are replacing quartz crystals in telephone filters. Detailed accounts are also given of the other crystals ADP, which was used during the last war as an electromechanical transducing element in underwater sound work; KDP (potassium dihydrogen phosphate), a new ferroelectric type of crystal; and the ceramic barium titanate which produces an electrostrictive effect comparable with the largest piezoelectric effect in any crystal.

The great value of this book for reference and study of piezoelectricity and related subjects is enhanced by the chapters on crystallographic systems, stresses and strains, thermal and electric relations; by four chapters on the production and measurement of ultrasonic waves in gases, liquids and solids. And by an appendix showing how tensors can be applied to the calculation of the properties of rotated systems.

#### EXAMINE THIS BOOK FREE!

Use the convenient order form below to obtain an examination copy of this important new work.

DI PASE CUT OUT AND MAIL

E EMPLEON COL CO	W THAT ME TIME WAT
D. Van Nostrand Company, Inc. 250 Fourth Avenue New York 3, N. Y.	Publishers since 1848
Please send me a copy of "Piczoelectric Crystals in their relation to Ultrasonics". Within 10 days 1 will either return the book of send you \$7.50.	
Name	

City.,....Zone State...

PT-250