

ANALYTICAL CHEMISTRY

Analytical Edition, Industrial and Engineering Chemistry

Volume 19, Number 9

Consecutive Number 18

EDITOR: WALTER J. MURPHY

Assistant to Editor: N. A. PARKINSON
Executive Editor: JAMES M. CROWE
Associate Editor: LAWRENCE T. HALLETT
Contributing Editor: R. H. MÜLLER

Assistant Editors
Manuscript Editing: G. GLADYS GORDON
Manuscript Reviewing: STELLA ANDERSON
Make-up: CHARLOTTE C. SAYRE

Advisory Board

R. P. CHAPMAN
J. R. CHURCHILL
B. L. CLARKE
T. R. CUNNINGHAM
G. E. F. LUNDELL
M. G. MELLON
R. H. MÜLLER
B. L. OSER
H. H. WILLARD

Issued September 20, 1947

Copyright 1947 by American Chemical Society

EDITORIAL	619	Estimation of Bromide in Presence of Chloride	
Infrared Analysis of Crystalline Penicillins . . R. B. Barnes, R. C. Gore, E. F. Williams, S. G. Linsley, and E. M. Petersen	620	Ladislaus Farkas and Menachem Lewin	665
Analysis of Thermite-Type Incendiary and Pyrotechnic Mixtures C. E. Danner and Jerome Goldenson	627	Hydrogen Discharge Tube . G. B. Arnold and Leon Donn	666
Direct Determination of Burning Rates of Propellant Powders B. L. Crawford, Jr., Clayton Huggett, Farrington Daniels, and R. E. Wilfong	630	Semimicroanalysis of Light Hydrocarbon Mixtures by Multi- isothermal Distillation	
Determination of Antioxidants in Gasoline		L. S. Echols, Jr., and Edward Gelus	668
L. R. Williams and B. R. Strickland	633	Titration of Acids by Electrolytically Generated Hydroxyl Ion . . . Joseph Epstein, H. A. Sober, and S. D. Silver	675
Analysis of Natural Gas Martin Shepherd	635	Determination and Nature of Leaf Sterols	
New Approach to Analytical Chemistry		M. E. Wall and E. G. Kelley	677
A. R. Choppin, A. L. LeRosen, and P. W. West	640	Improved Dithizone Method for Determination of Lead . .	
Amperometric Determination of Dissolved Oxygen in Orange Juice . . . V. M. Lewis and H. A. McKenzie	643	L. J. Snyder	684
Fluorescence Test for Uranium in Aqueous Solution . . .		Semimicrodetermination of Carbon and Hydrogen	
C. W. Sill and H. E. Peterson	646	E. C. Horning and M. G. Horning	688
Determination of Phosphorus in Phosphate Rock		NOTES ON ANALYTICAL PROCEDURES	
Kenneth Helrich and William Rieman III	651	Determination of Acetyl Number of Fats and Oils . . .	
Contamination of Silicate Samples Crushed in Steel Mortars		Kenneth Helrich and William Rieman III	691
E. B. Sandell	652	Tyndallometer for Colored Solutions . . H. P. Kortschak	692
Spectrographic Examination of Organic Precipitates . . .		Stable Colorimetric Reagent for Chromium	
Margaret Griffing, Thos. De Vries, and M. G. Mellon	654	J. F. Ege, Jr., and Leslie Silverman	693
Physical and Chemical Methods for Characterizing Peanut Butter J. F. Vincent and L. Z. Szabo	655	Identification and Determination of D-Xylose	
Water Analyses by Selective Specific Conductance . . .		L. E. Wise and E. K. Ratliff	694
J. W. Polsky	657	Rapid Digestion Method for Determination of Calcium	
Komarowski Reaction F. R. Duke	661	O. E. Stamberg and D. W. Bolin	695
Analysis of Hypochlorite-Hypobromite Solutions		CORRESPONDENCE	696
Ladislaus Farkas and Menachem Lewin	662	BOOK REVIEWS	697
		AIDS FOR THE ANALYST	698
		THE ANALYST'S COLUMN	19 A
		INSTRUMENTATION R. H. Müller	25 A

The American Chemical Society assumes no responsibility for the statements and opinions advanced by contributors to its publications. Views expressed in the editorials are those of the editors and do not necessarily represent the official position of the American Chemical Society.

Published by the American Chemical Society, from 20th and Northampton Sts., Easton, Pa. Executive Offices and Editorial Headquarters, 1155 Sixteenth St., N. W., Washington 6, D. C. Advertising Office: 332 West 42nd St., New York 18, N. Y. Branch Editorial Offices: Chicago 4, Ill., Room 819, 25 East Jackson Blvd.; Houston 2, Tex., 413 West Bldg.; New York 17, 60 East 42nd St.; San Francisco 2, Calif., Room 454, 760 Market St. Entered as second-class matter at the Post Office at Easton, Pa., under the Act of March 3, 1879, as 24 times a year: Industrial Edition monthly on the 1st, Analytical Edition monthly on the 15th. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of Oct. 3, 1917, authorized July 13, 1918.

Annual subscriptions: Industrial Edition and Analytical Edition sold only as a unit, members \$3.00, nonmembers \$4.00. Postage to countries not in the Pan-American Union \$3.00; Canadian postage \$1.00. Single copies: current issues, Industrial Edition \$0.75, Analytical Edition \$0.50; back numbers, Industrial Edition \$0.80, Analytical Edition prices on request, special rates to members. Claims for missing numbers will not be allowed if received more than 60 days from date of issue. No claims allowed from subscribers in central Europe, Asia, or the Pacific Islands other than Hawaii, or because of failure to notify the Circulation Department of a change of address, or because copy is "missing from files."

The American Chemical Society also publishes *Chemical and Engineering News*, *Chemical Abstracts*, and the *Journal of the American Chemical Society*. Rates on request.