

## MEETINGS AND PROGRAMS

### Monmouth College Invites Chemistry Teachers

A conference of college chemistry teachers will be held on the Monmouth College campus, Monmouth, Ill., Nov. 14 and 15. This is being sponsored by Monmouth College as one of the major events of its Centennial Year. College chemistry teachers in liberal arts colleges in Illinois and adjacent states have been invited to participate.

Edward L. Haenisch, professor of chemistry and chairman of the department, Wabash College, will be the director of the conference. Speakers will include Alfred B. Garrett of Ohio State University; Harry F. Lewis, Institute of Paper Chemistry; and E. H. Volwiler, of Abbott Laboratories. Time is provided in the conference program for meetings of the participants in small groups for discussions of common problems.

### Vinyl Plastic Film Industry Meeting Announced

A Proposed Commercial Standard for Vinyl Film, submitted by the Society of the Plastics Industry, will be discussed at a meeting of the vinyl plastic film industry to be held Nov. 18 at the National Bureau of Standards, Washington, D. C.

The Proposed Commercial Standard covers methods of test and requirements of general purpose vinyl plastic film to ensure satisfactory products for consumer use. The requirements and methods of test specify thickness tolerances, yield per roll, width tolerances, shrinkage at elevated temperatures, contamination, appearance, cracking, tensile properties, tear resistance, volatility of plasticizer, water extraction, low temperature impact, and flammability. Suggested forms for declaring compliance with the standard and an identifying hallmark are included.

All individuals and organizations interested in the production, distribution, use or testing of vinyl plastic film are invited to the meeting which starts at 10 A.M. Those who wish to attend should notify F. W. Reynolds, Commodity Standards Division, U. S. Department of Commerce, Washington 25, D. C., as far in advance of the date of the meeting as possible.

### Soil Conditioner Conference

The first national Soil Conditioner Conference will be held at the Hotel Plaza in New York Nov. 10. Soil scientists, research experts, and marketing authorities will present their findings covering chemical soil conditioners introduced for the first time the past spring. A formal agenda covering technical aspects of chemical soil conditioners will be presented at the morning session, followed by trade practices, merchandising, and advertising forums in the afternoon. The purpose of the confer-

ence is to clarify conflicting claims advanced by producers and to exchange technical information on the subject.

### Scientific Apparatus Makers to Meet in Virginia

Midyear meetings of three sections of the Scientific Apparatus Makers Association will be held Nov. 5 to 9 at The Homestead, Hot Springs, Va. Among major subjects scheduled for discussion

### Three Arkansas ACS Sections Hosts for 8th Southwest Regional Meeting

Central Arkansas, South Arkansas, and University of Arkansas Sections of the AMERICAN CHEMICAL SOCIETY will act as host to the 8th Southwest Regional Meeting to be held at the Hotel Marion in Little Rock, Dec. 4 to 6.

Registration begins Thursday, Dec. 4 at 10 A.M., and will continue through Saturday morning. Both technical sessions and plant trips will occupy the afternoon Thursday and will be followed by a Smorgasbord and mixer on Thursday evening. Planned for Friday is a half-day trip to bauxite-producing areas for those interested.

Departing from tradition, the presentation of the Southwest Award will take place at a breakfast on Friday morning. Henry Eyring, dean of Utah University's graduate school, will speak at a joint luncheon with the Chamber of Commerce at noon.

Arrangement is being made for employment interviews. Hotel accommodations may be requested through Barbara Kelley, University of Arkansas School of Medicine, Little Rock, Ark.

Registration fees will be \$4.00 for members of the Society and visitors other than American nonmember chemists and chemical engineers, and \$8.00 for American nonmember chemists and chemical engineers. Students of chemistry and chemical engineering, both graduate and undergraduate, are given the courtesy of registration on the same basis as members of the Society. A 75% rebate of the student fees will be made through the courtesy of the host sections.

Members of the meeting committees are: general chairman, W. W. Grigoroff; program, Edgar Wertheim; publicity, Marvin Edmison; plant trips, Gaston Bell; exhibits, Barbara Kelley; meeting arrangements, Carl D. Douglass; entertainment, R. M. Atchley; employment, Guy Mitchell; finance, N. B. Russel; ladies, Mrs. H. L. Winburn.

The technical program follows. Papers were still being received as this issue went to press and the program committee had not yet placed these in the time schedule.

are export licensing, technical manpower shortage, and advantages of buildings designed especially for apparatus manufacture. Technical meetings are scheduled for Thursday and Friday. George E. Sokolsky, columnist and radio commentator, will speak at the dinner meeting on Friday, analyzing election results.

### Clean Streams Conference

The Pennsylvania State Chamber of Commerce will sponsor a Clean Streams Conference at the Penn Harris Hotel in Harrisburg Nov. 12. The program is directed to industrialists at the executive level. The luncheon speaker will be Russell E. Teague, chairman of the State Sanitary Water Board.

These papers are appended at the end of the program. Some few papers which will be presented were received too late to be published here. Due to the unexpectedly large number of papers additional sessions on physical and inorganic chemistry and chemical education will be scheduled for Thursday afternoon.

#### PROGRAM

##### THURSDAY AFTERNOON

#### Industrial Chemistry

E. N. PENNINGTON, S. J. MARWELL. Correlation of Liquid-Liquid Phase Equilibrium.

L. J. WOOD, G. M. MUCHOW. A Study of Equilibrium Mixtures of Carbonate, Phosphate, and Liquid Silicate of Soda.

V. H. RYAN. Application of Metallic Phosphates to Water Treatment.

E. J. REEVES. Evaluation of Viscosity Index Improvers.

F. C. FOWLER, GENE REINMUTH. Velocity Distribution in Laminar Flow.

Discussion Period: Is Graduate Study Necessary for the Chemical Engineering Student?

##### FRIDAY MORNING

#### Biochemistry

D. W. WHITMAN, R. M. WHITNEY. Catalytic Activity of Cystein and Related Compounds Upon the Iodine-Azide Reaction.

PRICE TRUITT, DAVID ZACHRY, GEORGE SAMMONS, J. R. BUTTRAM, RAY HERD. Organic Derivatives with Antifungal and Antitubercular Activities.

B. L. WILLIAMS, SIMON H. WENDER. The Isolation and Identification of Kaempferol and Quercetin from Strawberries.

R. A. NYQUIST, V. C. HELLER. Insecticide Spray Residue Reduction in Food Processing.

C. W. SHAW. Serum Protein Bound Iodine Determination.

#### Industrial Chemistry

S. W. WALKER. A Survey of Industrial Petrochemicals.

R. S. HANMER. Production of Synthetic Rubber by Continuous Processes.

B. V. DUVAL, M. E. BARKER. A Survey of Acetylene Production Methods.

J. M. LENOIR, E. S. AMIS. A Method for Predicting Thermal Conductivities of Mixed Gases.

## Physical-Inorganic Chemistry

GRADY MANNING HOTEL

H. H. BLISS. The 3-Column Instruction Form as an Aid in Industry.

W. J. BROACH, E. S. AMIS. The Kinetics of the Reaction of Thiosulfate Ion with Sodium Monobromomalonate and Ethyl Monobrom.

YAO CHIANG, W. J. SMOTHERS. Preliminary Pyrolytic Curves of Common Sugars Obtained by the Differential Thermal Method.

PAUL DELAHAY. Theory of Irreversible Waves in Oscillographic Polarography.

PAUL DELAHAY. Influence of Potential and pH on the Rate of Metallic Corrosion.

H. N. DUNNING, J. W. MOORE, M. O. DENEKAS. Porphyrin Content and Interfacial Activity of Petroleum Extracts.

LOUIS FRANK. Algebraic Relations for Property-Composition Curves of Binary Mixtures.

THOMAS KEELLEN, R. C. ANDERSON. Surface Reaction of Nickel and Ethylenediamine.

## Organic Chemistry

R. J. LEE, P. S. DRENNAN. Reactions of Pure Hydrocarbons Catalyzed by Anhydrous HF.

S. SEARLES, MILTON TAMRES, G. M. BARROW. Hydrogen Bonding of Esters and Lactones, Effect of Ring Size and Site of Bonding.

C. A. MACKENZIE. Some Cleavage Reactions of Orthoesters.

ARTHUR FRY. A Tracer Study of the Reaction of Isocyanates with Carboxylic Acids.

D. E. SWAYAMPATI, OGDEN BAINE, HAROLD JESKEY. Carbonation of Hydroxy Pyridines and Quinolines.

R. T. O'CONNOR, C. H. POMINSKI, P. VON DER BAAR, E. F. DUPRE. The Infrared Spectra and the Molecular Structure of Gossypol.

DANIEL W. FOX, W. L. SAVAGE, S. H. WENDER. Hydrolysis Studies on Rutin.

## Chemical Education Symposium

G. F. BELL, TOM BURKHALTER, J. L. GABBARD, A. V. PEPPARD, R. T. OVERMAN, JOE PULLEN. Panel Discussion. H. H. BLISS, moderator.

FRIDAY AFTERNOON

## Analytical Chemistry

S. H. HASTINGS. Spectrophotometric Determination of Aliphatic Sulfides.

C. H. HALE, MARGIE N. HALE. The

## CALENDAR OF EVENTS

### American Chemical Society

123rd National Meeting, Los Angeles, Calif., March 15-19, 1953.

124th National Meeting, Chicago, Ill. Sept. 6-11, 1953.

125th National Meeting, Kansas City, Mo. March 24-April 1, 1954.

Division of Rubber Chemistry, Fall Meeting, Hotel Statler, Buffalo, N. Y., Oct. 29-31.

St. Louis Section, Midwest Award Meeting, Hotel Sheraton, St. Louis, Mo. Nov. 8.

### Other Organizations

American Association of Textile Chemists and Colorists, Annual Convention. Hotel Statler, Boston, Mass., Nov. 6-8.

American Petroleum Institute, 32nd Annual Meeting. Conrad Hilton Hotel and Palmer House, Chicago, Ill., Nov. 10-13.

## ACS Local Sections

PLACE	Nov.	SPEAKER	SUBJECT
Ames, Auditorium, Chemistry Building, Iowa State College	12	Fred Basolo	Reaction Mechanism(s) of Complex Ions
Binghamton, Harpur College, Endicott, N. Y.	11	Martin A. Paul	Acid Catalysts
California (Fresno Subsection), Fresno State College	14	H. H. Strain	Experiments in Paper Chromatography
(Santa Clara Valley Subsection), San Jose State College	12	H. H. Strain	Paper Chromatography
Carolina-Piedmont, Jake's Restaurant, Charlotte	11	M. H. Bigelow	Modern Plastics and Their Uses
Central Arkansas, Room 515, University of Arkansas School of Medicine, Little Rock	10	H. B. Jonassen	Complex Ions in Nature and Industry
Central Massachusetts, Clark University, Worcester	10	Jack Zomlefer	High Polymers: A Science
Central North Carolina, Science Building, Greensboro College	10	M. H. Bigelow	Modern Plastics and Their Uses
Central Ohio Valley, Henry Clay Hotel, Ashland	10	M. R. Fenske	Physical Separational Processes
Chattanooga, University of Chattanooga	12	W. T. Ziegler	Properties of Matter at Low Temperatures
Cincinnati, Engineering Society Headquarters (Student Night)	12	M. R. Fenske	Physical Separational Processes
Dallas-Fort Worth, North Texas State College, Denton	12	H. B. Jonassen	Complex Ions in Nature and Industry
Dayton, Engineers Club, Dayton, Ohio	11	Wayne Johnson W. C. Fernelius K. B. Bernhardt W. J. Murphy	Panel Discussion on Professional Practices
East Tennessee, Dabney Hall, University of Tennessee	11	W. T. Ziegler	Properties of Matter at Low Temperatures
Florida, State Chemistry Laboratories, Tallahassee	15	M. H. Bigelow	Modern Plastics and Their Uses
Indiana, Room 131, Jordan Hall, Butler University, Indianapolis	13	M. R. Fenske	Physical Separational Processes
Indiana, Hotel Warren, Indianapolis (luncheon meeting)	11	J. A. Brown	A New Technique in Paper Chromatography
Iowa, Chemistry Building, Iowa State University, Iowa City	13	Fred Basolo	Reaction Mechanism(s) of Complex Ions
Kalamazoo, Kalamazoo College	13	W. H. Pearlson	Fluorochemicals
Kanawha Valley, North Charleston Recreation Center	11	M. R. Fenske	Physical Separational Processes
Kansas State College, Chemistry Building, Manhattan	13	L. F. Audrieth	Hydrazine
Louisiana, Tulane University, New Orleans	14	David A. Shirley	Chemistry of Some Plant Pigments
Maine, Bowdoin College, Brunswick	15	P. H. Emmett	Mechanism of Hydrocarbon Synthesis from CO and H <sub>2</sub>
Memphis, Chemistry Building, Memphis State College	14	W. T. Ziegler	Properties of Matter at Low Temperatures
Michigan State College, Kedzie Laboratory, East Lansing	11	W. H. Pearlson	Fluorochemicals
Midland, Dow Chemical Co., Monmouth County, Squier Signal Lab., Ft. Monmouth, N. J.	10	E. T. Palomba	Production of Bakers' Yeast
Nashville, Furman Hall, Vanderbilt University	13	W. T. Ziegler	Properties of Matter at Low Temperatures
Nebraska, University of Nebraska, Lincoln	10	Fred Basolo	Reaction Mechanism(s) of Complex Ions
New Haven, Sterling Chemistry Laboratory, Yale University	11	P. H. Emmett	Mechanism of Hydrocarbon Synthesis from CO and H <sub>2</sub>
New Mexico, University of New Mexico, Albuquerque	14	H. B. Jonassen	Complex Ions in Nature and Industry
North Jersey (Central Subsection), Winfield Scott Hotel, Elizabeth	10	L. V. Sherwood	Soil Conditioning Chemicals and Their Adaptation
(Raritan Valley Group), Rutgers University, New Brunswick	12	R. A. Norton	Chemical Inventions Under the New Patent Law
Northeast Oklahoma, Continental Research Bldg., Ponca City	10	L. F. Audrieth	Hydrazine
Northeast Tennessee, E. Tennessee State College, Johnson City	10	W. T. Ziegler	Properties of Matter at Low Temperatures
Northeastern, Room 10-250, Huntington Hall, MIT, Cambridge (4:00 P.M.)	13	George Scatchard	Some Electrochemical Properties of Ion Exchange Membranes
		N. W. Rosenberg	Electrochemical Properties of a Cation Exchange Resin
		K. S. Spiegler	Electron Migration in Ion Exchange Resins
		P. H. Emmett	Mechanism of Hydrocarbon Synthesis from CO and H <sub>2</sub>
		L. F. Audrieth	Phosphoric Acids, Phosphates
		Fred Basolo	Reaction Mechanism(s) of Complex Ions
		H. B. Jonassen	Complex Ions in Nature and Industry
		Wm. Riegan, III	Ion Exchange in Analytical Chemistry
		David R. Briggs	Electrophoresis as a Biochemical Tool
		J. L. Gornaley	Laboratory Techniques in Criminal Investigation
		P. H. Emmett	Mechanism of Hydrocarbon Synthesis from CO and H <sub>2</sub>
		M. H. Bigelow	Modern Plastics and Their Uses
		B. C. Barton	Mechanism of Sulfur Vulcanization
		L. F. Audrieth	Hydrazine
		W. H. Pearlson	Fluorochemicals
		George Thom	The Effective Safety Message
		M. R. Fenske	Physical Separational Processes
		M. H. Bigelow	Modern Plastics and Their Uses
		H. F. Mark	Principles of Fiber Formation
		P. H. Emmett	Mechanism of Hydrocarbon Synthesis from CO and H <sub>2</sub>
		L. F. Audrieth	Hydrazine
		Wm. Riegan, III	Ion Exchange in Analytical Chemistry



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Use of Ethylenediaminetetraacetic Acid in Polarography.

T. S. BURKHALTER, BOBBY G. MESSICK. The Polarographic Characterization of *p*-Nitroacetophenone and Related Compounds.

P. F. KRUSE JR., W. B. WALLACE. The Identification of Polymers by Infrared Analysis of Their Pyrolysis Products.

J. T. WILEY, T. B. SMITHERMAN. Improved Results in Flame Photometry.

L. I. DITCUID, N. L. CRUMP. Methods for the Micro Determination of Mixed Halogen and Amide Group.

M. H. BOOTH, C. H. AYRES. A Study of pH Variations in the Catalytic Decomposition of Hypochlorite.

#### Biochemistry

LESTER YODER, B. H. THOMAS. An Antirachitic Sulfonic Acid Derivative of Cholesterol.

FLORENCE I. SCOUAR, NELL DAVIS, FAYE FULLER. The Nitrogen, Thiamin, Riboflavin and Nicotinic Acid Metabolism of College Women on Self-Selected Diets.

E. B. CARMICHAEL. The Seasonal Variations in the Toxicity of Demerol in Laboratory Animals.

#### Industrial Chemistry

F. J. SODAY. A General Survey of Synthetic Fibers.

J. E. STICE. The Production of Nonwoven Fabrics from Synthetic Fibers.

M. E. BARKER. Heat Transfer through Fabrics and Fibrous Battings.

#### Organic Chemistry

O. C. DERNER, ALFRED JENKINS. Cyclic Copolymers of Aldehydes and Aldehyde Analogs.

R. E. DIETZ, S. H. LEE. The Preparation and Thermal Decomposition of Some Aromatic Sulfonazides.

H. S. CHOGUILL, P. M. DUELL, D. R. BRUMFIELD. Iodination of Substituted Phenols. I. *m*-Cresol.

P. E. PETERSON, MARGUERITE GRIFFIN, J. J. SPURLOCK. Some Nitrogen Heterocycles as Anticonvulsants.

SAMUEL SIEGEL. The Relative Configurations of the 2- and 3-Hydroxycyclohexanecarboxylic Acids and the Related Methylcyclohexanols.

E. J. VICKNAIR, W. S. SINGLETON, R. O. FEUGE. Some Physical Properties of the Polymorphic Forms of 1,2-Diaceto-3-stearin and 1-Aceto-3-stearin.

V. L. TWEEDIE, L. W. DEVANEY, J. M. ALTEMORE JR., K. DINBERGS. Chlorinolysis Studies on Certain Heterocyclic Compounds.

LESTER YODER. A Semimicro Estimation of the Molecular Weights of Organic Salts.

#### Nuclear Chemistry Symposium

R. R. WILLIAMS. Recent Developments in Hot-Atom Chemistry.

R. W. STOUGHTON. High Energy Nuclear Reactions.

L. O. MORGAN. High Energy Neutron Reactions.

H. E. SUSS. Cosmic Nuclear Abundances.

E. L. McCHADY. The Age of the Universe.

#### SATURDAY MORNING

#### Analytical Chemistry

R. C. JARNAGIN, C. T. KENNER. Determination of Lead by Centrifugation of Homogeneously Precipitated Sulfate.

S. H. SIMONSEN, P. CHRISTOPHER. The

Reaction Between Salicylaldoxime and Zinc. (II).

P. W. WEST, GERALD PERKINS, HANS SUTER. Studies Pertaining to the Determination of Ash in Petroleum.

N. G. ADAMS, D. M. RICHARDSON. The Isolation and Identification of Biphenyls from West Edmond Crude Oil.

LEO GARWIN, P. O. HADDAD. The System Acetic Acid-Water-Dimethylaniline; Liquid Phase Behavior and Analysis.

M. R. SHETLAR, VIRGINIA RICHMOND. Determination of Serum and Tissue Polysaccharides by the Anthrone Reaction.

MARYANN DUGGAN, A. V. METTLER. A Punch Card System for Chemical Classification Studies of Surface and Under-ground Waters.

**Biochemistry**

V. L. FRAMPTON, T. P. O'BARR, O. WYSS. Microbiological Deterioration of Cellulose.

J. F. CHRISTMAN, VIRGINIA R. WILLIAMS. A New Interpretation Concerning the Mode of Action of B-Vitamins.

E. ANNE ANDREWS, J. F. CHRISTMAN, VIRGINIA R. WILLIAMS. Preliminary Evidence for a Possible Biotin-Hexokinase Interrelationship.

T. A. MCCOY, M. K. PATTERSON JR. The Utilization of Essential Amino Acids by *Streptococcus Faecalis* A.T.C.C. 6057 under Serine Imbalance.

L. E. MCCLURE, M. S. DUNN. Acids Produced by *Lactobacillus casei* during Fermentation of Radioactive Glucose.

**Physical-Inorganic Chemistry**

H. W. MORGAN, J. H. GOLDSTEIN. Chemical Aspects of Microwave Spectroscopy.

JOHN SURAK. Changes in the Dipole Moment on Chlorination of 1-1-Ditolyl Ethane.

JOHN SURAK. Statistical Comparison of Different Instruments for the Measurement of Mixtures of Activated Yeasts.

J. C. TRANTHAM, R. B. BEVAN. Further Investigation of Molecular Association by the High Frequency Oscillator Method.

H. B. WILLIAMS. The Molecular Weight of Gum Arabic as Determined by a Light Scattering Method.

S. W. HOCKETT. How Valence Quirks Aid Industry.

J. C. STREET, W. D. GALLUP, A. B. NELSON. Manganese Content of Native Grasses in Relation to Beef Cattle Production.

E. F. WILLIAMS, JR., W. M. HIGHTOWER. Relative Gastrointestinal Absorption of Labelled Calcium in Young, Calcium-Starved Young, Mature and Pregnant Rats Respectively.

E. L. EICHHORN. Simple Chemical Systems as Models for the Catalytic Effect of Metals in Biochemical Reactions.

J. S. KING JR., C. H. EADES JR. The Influence of Glycine Derivatives on the Salicylate-Induced Adrenal Ascorbic Acid Depletion in Rats.

E. V. ENZMANN, M. M. STETTNER. A Gene Model Based on Volume Consideration.

J. M. WEAVER, WILLIAM SHIVE. The Role of 4-Amino-5-imidazolecarboxamide in Purine Biosynthesis.

C. H. EADES JR., J. S. KING JR. The Influence of Glycine Derivatives on the Salicylate-Induced Ascorbic Acid Depletion in Rats.

C. H. SULENGER, C. D. DOUGLASS, BARBARA KELLEY, P. L. DAY. The Influence of Total Body X-Irradiation Upon

the Nucleic Acid Content of Some Organs of the Pigeon.

JACOB SACKS, LEO LUTWAK. Two New Nucleotides from Rabbit Liver.

W. E. WHITE, JAMES GODWIN. Fluorine and Dental Health—Recent Developments.

C. R. KEIZER. Demonstrations with Ion Exchange Resins.

W. T. READ. Chemistry in National Defense.

DONALD BENEFIELD, J. E. WEBSTER, FRANK DAVIES. Chemical Composition of Sweet Sorghum Plants in Relation to Time of Harvest for Sirup Making.

BOYD WEAVER, F. A. KAPPELMIANN, J. M. COOCHIN, F. B. THOMAS, F. M. SCLEFFLIN, R. L. BAILEY, A. C. TOPP. Quantity Separation of Rare Earths by Liquid-Liquid Extraction.

M. VICK. The Carrying of Copper by Fluorine Precipitates.

C. M. PROCTER, W. D. HOOD. Phosphates in Sea Water Determined by a Butanol Extraction Procedure.

K. E. HARWELL. A Precise Electronic Titrimeter for Salinity Determinations.

R. L. POLLACK, C. H. EADES JR. The Determination of Free and Combined Amino Acids.

G. M. WATSON, J. D. BARON. An Apparatus for Laboratory Demonstrations of Compressibility Measurements on Gaseous Fluids.

G. L. EICHHORN, I. TRACHTENBERG. The Hydrolysis of the Metal Ion Complexes of Schiff's Bases.

G. K. ESTOK. Electric Moments of Some Methyl Ketones.

W. D. WEAVER, P. C. YATES, T. R. MOORE. A Study of the Formation of Aquo and Chloro Complexes of Cobalt (II).

R. SPITZER. Recent Conceptions of the Stereochemistry of the Cyclanes.

W. R. EDWARDS, W. M. HENLEY. Acetic Oxalic Anhydride (Diacyetyl Oxalate).

R. E. KOEPEL. Synthesis of 2-Thiocyanimidazoles.

P. K. KURCDA, P. E. DAMON. The Radioactivity of Spring Water of Hot Springs National Park, Hot Springs, Ark

R. H. LUEBBERS. An Apparatus for Study of Fluid Flow of Liquids in Chemical Engineering Unit Operations Lab.

G. K. ESTOK. Integrated View of Generalized Reaction Mechanisms for Beginning Students.

C. M. PROCTER. Administrative Training as Part of the Graduate Science Program.

Z. HURVALEK. Slides and Movies in Classroom.

J. B. ENTRIKIN. Senior Seminars.

R. H. LENOY. Periodic Charts.

W. P. CORTELYOU. A Proposal for the Standardization of Chemistry Courses.

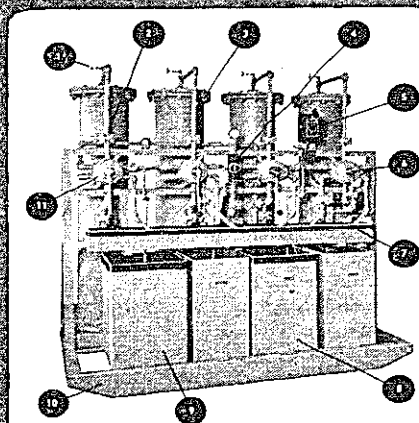
ETHALINE CORTELYOU. The National Cooperative Undergraduate Chemical Research Program.

F. C. KING. The Development and Application of Dynel.

J. P. O'MEARA. Chemical Analysis by Nuclear Magnetic Resonance Methods.

G. D. JOHNSON. Color and Constitution of Some 2,4-Dinitro Phenylhydrazones.

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