

with dimethyl sulfoxide and sodium bicarbonate. In studying the Rosenmund reduction of acid chlorides to aldehydes, White, Sulya and Cain [J. Lipid Res. 8, 158 (1966)] found that while this method worked well for the preparation of saturated aldehydes, the reduction of oleoyl chloride gave stearaldehyde as well as olealdehyde. Moreover, the olealdehyde contained 26% *trans* bonds and the double bonds were scattered from C<sub>6</sub> through C<sub>11</sub> with less than half remaining at C<sub>6</sub>.

Since a noncatalytic method might give reduction without bond migration or isomerization, the reduction of unsaturated acid chlorides with lithium tri-*t*-butoxyaluminumhydride [J. Am. Chem. Soc. 80, 5377 (1958)] was studied. Infrared analyses of olealdehyde, linolealdehyde and stearaldehyde prepared from the corresponding acid chlorides revealed no *trans* isomers. Ozonization-reduction of the ethylenic aldehydes or ozonization-hydrolysis-esterification of the acetylenic aldehyde followed by gas-liquid chromatographic analysis of the fragments showed that essentially no bond migration had occurred (at most 3-5%). Ultraviolet analysis of linolealdehyde showed the absence of conjugation. Therefore, lithium tri-*t*-butoxyaluminumhydride can be used to reduce monoethylenic, diethylenic and monoacetylenic acid chlorides to the corresponding aldehydes with essentially no bond migration or isomerization.

## Flavor Chemists Elect

### Merwin President

E. L. MERWIN has been elected to a one-year term as President of the Society of Flavor Chemists, Inc., at its Annual Meeting in New York City.

Other officers elected were: Vice President, ANTHONY CLEMENTE of Fritsche Bros.; Secretary, EUGENE BUDAY of Polak Frutal Works; Treasurer, A. V. SALDARINI of Norda.

## Applications Now Being Accepted for Polymeric Materials Program

Applications for the graduate program in Polymer Chemistry and Technology at Polytechnic Institute of Brooklyn are now being accepted by the Office of Admissions, 333 Jay St., Brooklyn, N. Y. 11201.

Registration will be held Sept. 18-21, 1967. Classes begin Sept. 25. Research fellowships are available for the program, announced Prof. James Conti, Head of the Chemical Engineering Department. Interested students may write to Prof. Conti or call him at (212)643-2852 or 643-2962.

The program, leading to a master's degree in Polymeric Materials, can be pursued full-time in the day or part-time in the evening. A full-time student can complete the program in one calendar year.

Requirements for the program are a B.S. degree in Chemistry or Chemical Engineering or the equivalent from an approved college. Total semester hour credits required for the degree are 30. Of this total, 20 are elective credits.

Planned to make possible specialization in polymer science or engineering or to obtain a diversified training in both *polymer chemistry and technology*, the program conforms fully with the recommendations of the Education Committee of the Society of Plastics Engineers.

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**SYNERGISTIC SEQUESTERING AGENT.** J. S. Pierce. *U.S. 3,294,689*. A synergistic sequestering composition of matter of wide utility is claimed which, when dissolved in water, consists essentially of an aqueous solution of (HOCH<sub>2</sub>)<sub>2</sub>CNHC<sub>2</sub>H<sub>4</sub>CHOHCH<sub>2</sub>NHC(CH<sub>2</sub>OH)<sub>2</sub> and citric acid, in which the molar ratio of polyhydroxyamine to citric acid has limits of 4/1 to 1/4.

**SHAVING CREAM CONTAINING POLYSILOXANES.** J. L. Bishop, Jr. and C. W. Todd (Dow Corning Corp.). *U.S. 3,298,919*. A shaving cream composition consists of 0.5-9% stearic acid, 0.5-3% lauric acid, 1-15% glycerine, 1-7% triethanolamine, 40-80% water, 2-12% of a propellant and 0.1-5% of a silicone fluid.

**LIME SOAP DISPERSANTS.** R. R. Irani and K. Moedritzer (Monsanto Co.). *U.S. 3,298,956*. A soap composition is claimed, consisting essentially of soap and at least one per cent by weight of an organo-amino polymethylphosphonic compound of the formula (R<sub>1</sub>)(R<sub>2</sub>)N-C(Y)(Y')-PO(OX)<sub>2</sub>, where X is a cation selected from the group consisting of hydrogen, alkali metal ion, ammonium ion and lower molecular weight alkyl, alkylene and alkanol amine ions; Y and Y' are either hydrogen or lower alkyl groups containing 1-4 atoms; R<sub>1</sub> is either hydrogen, an aliphatic group containing 1 to 30 C atoms or -C(Y)(Y')-PO(OX)<sub>2</sub>; R<sub>2</sub> is selected from the class consisting of hydrogen, aliphatic groups containing 1 to 30 C atoms, -C(Y)(Y')-PO(OX)<sub>2</sub> and -[C(Y)(Y')]<sub>n</sub>-N(Z')(Z), where n is an integer from 1 to 30; Z is a member selected from the class consisting of hydrogen and -C(Y)(Y')-PO(OX)<sub>2</sub> and Z' is a member selected from the class consisting of hydrogen, -C(Y)(Y')-PO(OX)<sub>2</sub> and -[C(Y)(Y')NZ]<sub>m</sub>-C(Y)(Y')-PO(OX)<sub>2</sub>, where m is an integer from 1 to 30; with at least one of the groups represented by R<sub>1</sub> and R<sub>2</sub> containing at least one -C(Y)(Y')-PO(OX)<sub>2</sub> group.

**DETERGENT BREAKER COMPOSITION.** J. S. Frank. *U.S. 3,298,963*. A synthetic detergent breaker composition consists essentially of 2-60% by wt. dialkylpolysiloxane having the general formula (RSiO)<sub>n</sub> where n is a positive integer from 2 to 100 and the R radicals are alkyl groups with, at the chain ends, from 1 to 6 C atoms; 2-70% alkylsiloxymetallic complex having the general formula (RSiO)<sub>n</sub>M, where M is the metallic ion selected from the group consisting of Al, Fe<sup>2+</sup>, Fe<sup>3+</sup> and Co and the R consists of alkyl groups from C<sub>1</sub> to C<sub>6</sub>; 10-70% metallic sulfate, the metal being Al, Fe<sup>2+</sup>, Fe<sup>3+</sup> or Co.; 0.5-20% silica gel; and 0.2-0.5% of a pH controlling material selected from the group consisting of sulfuric acid, sulfurous acid and ascorbic acid.

**ALKYLENE OXIDE POLYMER COMPOSITION FLEXIBILIZED WITH SALTS OF CARBOXYLIC ACIDS.** R. D. Lundberg and R. W. Callard (Union Carbide Corp.). *U.S. 3,298,980*. An homogeneous composition is claimed, comprising a polyethylene oxide having a reduced viscosity of at least 1 and from about 20 to 40% by wt., based on the weight of the polymer, of a salt containing 4-22 C atoms selected from the group consisting of ammonium or alkali metal salts of aliphatic carboxylic acids or aromatic carboxylic acids.

**METHOD OF SELECTING EMULSIONS INTENDED FOR THE PREPARATION OF COSMETICS AND SKIN PRODUCTS.** R. R. Aron-Brunetiere and C. F. Aron (Paris, France). *U.S. 3,300,386*. A method is described for testing emulsions as to their suitability in the treatment of dry and greasy skins. The method involves effecting a biopsy of an untreated portion of the shaven skin of an animal, applying the emulsion to be tested on another portion of the shaven skin at spaced intervals for a predetermined interval and effecting biopsies of the treated portion to determine the effect of the treatment. Emulsions for treating dry skins are expected to cause hyperplasia of the sebaceous glands and emulsions for treating greasy skins should fail to cause such an effect.

**PRESSED POWDER ANTIPERSPIRANT AND METHOD OF PREPARATION.** R. L. Kole (Kolmar Laboratories, Inc.). *U.S. 3,300,387*. A topically applied product for human use consists of a dry pressed powder cosmetic base having dispersed in itself divided particles of a hygroscopic antiperspirant coated with a water-soluble wax-like material selected from one of the following: polyethylene glycols with an average molecular weight of 1000 to 6000; polypropylene glycols with an average molecular weight of 140 to 600; methoxy propylene glycols with an average molecular weight of 350 to 750; lanolin extracts; ethoxylated lanolin; fatty acid esters of polyalcohols containing C<sub>6</sub> to C<sub>∞</sub> fatty acids; ethoxylated fatty acids containing

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