consists of four isomers, two of which are not likely to be found in adducts of the *alpha*-acid, it would seem probable that the better performance of the *beta*-derived compounds results from the presence of these two additional isomers.

Summary

Beta-propiolactone has been employed as the dienophile component in the Diels-Alder reaction with *alpha*- and *beta*-eleostearates, yielding acrylic acid adducts. Catalytic amounts of potassium carbonate were used to induce polymerization of *beta*-propiolactone to a polyester and to assist in its pyrolysis to acrylic acid.

The ethyl and *n*-butyl esters of the mixed fatty acids of *alpha*- and of *beta*-tung oil, containing about 75% eleostearates, were reacted with the theoretical amount of *beta*-propiolactone at 200°C. for a period of 1.5 hrs. Spectral analyses indicated nearly quantitative conversion of the reactants to the expected Diels-Alder products.

The acrylic acid adducts were esterified in their reaction mixtures with the appropriate alcohols to produce the corresponding di-esters. These esters were purified by means of high vacuum distillation.

Fractional crystallization of the free acids obtained by saponification of the di-butyl esters of the *alpha*-eleostearic acid adducts yielded two isomeric dicarboxylic acids, melting at 113°C. and 85°C. These isomers differ only in the position of the carboxyl group on the cyclohexene nucleus of the adduct.

The di-ethyl and di-butyl esters of both the *alpha*- and *beta*-eleostearic acid adducts and their hydrogenated derivatives have been intercompared as primary plasticizers for vinyl type resins. The hydrogenated di-esters of the *beta*-eleostearic acid adducts were found to be the most effective.

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Letter to the Editor

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In two current articles (1, 2) it has been claimed that diacetylenic compounds could not be prepared by dehydrobromination of tetrabromostearic acids. The reason was attributed to some side reactions caused by sodamide on diacetylenic substances in liquid ammonia (2).

It would be interesting for Journal readers to know that the dehydrobromination of tetrabromostearic acid has been previously studied, revealing a number of difficulties (3). Our recent investigations (4) have adduced evidences for the stepwise ionic mechanism of polymerization reactions involved in this dehydrobromination of polybromides. Polymerization possibly occurs in steps, prior to formation of acetylenic derivatives.

Other studies on acetylenic compounds (5) may throw light on side reactions that may be caused by sodamide in liquid ammonia and offer suggestions for future investigations.

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