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The Synthesis of Higher Normal
 α,ω -dicarboxylic Acids

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BY

STEPHEN DANNIE HEINEMAN

(DIPL. CHEM. ENG.)

OF THE UNITED STATES OF AMERICA

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and Prof. Dr. L. Ruzicka

S U M M A R Y .

1) Starting with 1,21-docosadiene, obtained by the reduction of the known 1,21-docosadiene-11-one-12-ol, the following normal α,ω -dicarboxylic acid dimethylesters were synthesised according to flow sheet I: 1,20-eicosanedioic acid dimethylester, 1,24-tetracosanedioic acid dimethylester and 1,26-hexacosanedioic acid dimethylester.

2) 1,16-hexadecanedioic acid dichloride, 1,20-eicosanedioic acid dichloride and 1,24-tetracosanedioic acid dichloride were converted according to flow sheet II into 3,18-diketo-1,20-eicosanedioic acid dimethylester, 3,22-diketo-1,24-tetracosanedioic acid dimethylester and 3,26-diketo-1,28-octacosanedioic acid dimethylester respectively.

3) Condensation of 3,18-diketo-1,20-eicosanedioic acid dimethylester and 3,22-diketo-1,24-tetracosanedioic acid dimethylester with 11-iodoundecanoic acid methylester and subsequent reactions according to flow sheet II gave 1,40-tetracontanedioic acid dimethylester and 1,44-tetracontanedioic acid dimethylester respectively.

4) Under similar conditions only one molecule of 11-iodoundecanoic acid methylester reacted with 3,26-diketo-1,28-octacosanedioic acid dimethylester, giving 1,36-hexatriacontanedioic acid dimethylester.

5) The I.R. absorption spectra of higher aliphatic compounds, which were obtained in the course of this work, were determined and are briefly discussed.