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AUTHORITY
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Preparation of C₂-C₄ olefin monomers by the thermal decomposition of n-pentadecane

The present paper was submitted during the 12th All-Union Conference on High-molecular Weight Substances (Section on Monomers), April 4, 1962. C₂-C₄ olefin monomers can be prepared by thermal and catalytic decomposition of C₆ and higher alkanes. In the present experiments, up to 76% of C₂-C₄ olefins were obtained by pyrolysis of n-pentadecane, at temperatures between 540 and 780°C. The experiments were carried out in silica tubes, the reaction temperature being controlled by means of the device ЛАТР-1 (LATR-1) and measured with a Ni-constantan thermocouple. Steam was used in some investigations, the volume velocity varied between 0.03 and 1.2.

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1.6. The separated gas was analyzed in a gas analyzer ВТИ-2 (VTI-2) and both bound and free oxygen was determined. Maximum yields of C₂-C₄ alkanes were obtained at 720°C, in the presence of steam, with volume velocities of 0.2. There are 2 tables.


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