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Transformation of n-hexane on the surface of initially modified nano-Al2O3surface of the catalyst in an oxygen medium under the influence of gamma rays.

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Initially, the catalyst was modified in an oxygen medium under the influence of surface radiation. The conversion processes were compared on the surface of compacted and unmodified catalysts, in the range $\Delta T = 380 \div 420$ c, the yield of gaseous and liquid products from the conversion of hexane in a mini-flow reactor was studied. The output of the products was monitored with IR and UV spectrometers and gas-liquid chromatographic devices. There was found that as the surface temperature of the catalyst increases, the yield in liquid products decreases by 14%, and the yield of gaseous products increases by 20%. Due to the additional anion centers (O-ads) formed on the surface of the oxygen-modified Al2O3 catalyst under the influence of radiation, the volume yield of oxidation products is higher and has a lower activation energy ($\Delta Ein = 11.27$ kCol / mol.).

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