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PAROVAYA I KARBONATNAYA KONVERSIYA METANA

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ABSTRACT

*In this work, the reactions of carbonate and steam-carbonate conversion of methane on the catalyst $(Ni_2O_3)x*(Co_2O_3)y*(ZrO_2)z*(B_2O_3)k*Me/Al_2O_3$ were studied. Depending on the temperature, the conversion of methane and carbon dioxide reaches 100%. with an increase in temperature from 700 to 800 ^oC, the N_2: SO ratio also increases from 1.47 to 4.00. As a result of the research, the following optimal conditions for the vapor-carbonate conversion reaction of methane in the catalyst Al_2O_3 (Ni_2O_3) x * (Co_2O_3) y * (ZrO_2) z * (B_2O_3) k * Me were determined: CH_4 : CO_2 = 1:1; P = 0,1 MPa; V0 = 1000 hours^{-1}, T = 750^oC.*

KEYWORDS: *Methane, Carbon Dioxide, Water Vapor, Catalyst, Conversion, Synthesis Gas.*

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