



Ethanol reforming in non-equilibrium plasma of glow discharge

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The results of a detailed kinetic study of the main plasma chemical processes in non-equilibrium ethanol/argon plasma are presented. It is shown that at the beginning of the discharge the molecular hydrogen is mainly generated in the reaction of ethanol H-abstraction. Later hydrogen is formed from active H, CH₂OH and CH₃CHOH and formaldehyde. Comparison with experimental data has shown that the used kinetic mechanism predicts well the concentrations of main species at the reactor outlet.

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