

عنوان مقاله:

Partial Oxidation of Methane to Higher Hydrocarbons and Synthesis Gas Using Catalytic DC Streamer Corona Discharge with NaY Zeolites

محل انتشار:

دوازدهمین کنگره ملی مهندسی شیمی ایران (سال: 1387)

تعداد صفحات اصل مقاله: 6

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خلاصه مقاله:

The gas discharge promoted oxidative conversion of methane to higher hydrocarbons over the shape-selective catalysts; in this case NaY zeolite was investigated. This catalytic plasma reactor can be operated at ambient conditions and leads to direct hydrocarbon formation. The products include alkanes, alkenes, alkynes, oxygenates, and syngas (CO + H₂). The product distribution depends on the input power, the flow rate and the catalyst used. From the experiments it can be concluded that a cogeneration of syngas and higher hydrocarbons with most selectivity to acetylene can be achieved using the catalytic DC streamer corona discharge.

کلمات کلیدی:

NaY zeolite, synthesis gas, acetylene, corona streamer, plasma reactor

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