



INVESTIGATION OF MICROCELLULAR NICKEL CATALYST IN OBTAINING ENDOTHERMIC ATMOSPHERE PROCESSES

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ABSTRACT

To provide the required properties of metals at their thermal treatment traditionally is used endothermic atmosphere. In order to improve the performance of generators of endothermic atmosphere, as well as reducing their cost experiments on the preparation and investigation of microcellular nickel catalysts has been done.

In this paper the results of the study of samples of microcellular nickel catalysts for the conversion of methane-air mixture in the receiving endothermic atmosphere process in the temperature range 600-950 °C are presented. Also the relations of output gases mixture on the temperature and size of the gas stream is shown. The investigation was conducted for the flow rate 500-4000 sccm and two different concentrations of methane in the inlet mixture. The results show a corresponding of the output gas mixture to endothermic atmosphere.

Keywords: catalyst, endothermic atmosphere, syngas