

WIDE-APERTURE ROTATING GLIDING DISCHARGE FOR PLASMA-CATALYTIC SYSTEM

Contact Phone

Abstract

This paper presents the results of the study of the wide-aperture rotating gliding discharge which was used for the plasma-catalytic reforming of hydrocarbons into synthesis gas. The photographs were compared with the oscillograms that represented the voltage of the wide-aperture rotating gliding discharge. The emission spectra of the plasma torch of the wide-aperture rotating gliding discharge were investigated for cases of when the reaction chamber was supplied with air and ethanol-air mixture. The distributions of electron T_e , vibrational T_v and rotational T_r temperatures alongside the plasma torch inside the reaction chamber were determined.

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