UDC 537.523:538.4

Tropina A.A. Impact produced by electromagnetic proper-ties of a discharge onto formation of initial seat of flame. / A.A. Tropina // Internal combustion engines. – 2009. – №2. –Р. 41-45.

The results of numerical modeling of inflammation proc-ess and formation of the initial seat of flame initiated by the depleted methane and air mixture under the high pressure con-ditions that are peculiar for initiation of combustion process in the internal combustion engines have been given. The proposed model includes computation of chemical kinetics for 53 mix-ture components in turbulent gas flow environment and simula-tion of electrodynamics of spark discharge after breakdown. The impact produced by turbulence, spark power and discharge organization shape onto inflammation process has been ana-lyzed. Il.8. Bibliogr. 10 names.