

LEAN FUEL-AIR MIXTURE BURNING IN THE CASES OF INWARD AND OUTWARD IGNITION BY COMBUSTION PRODUCTS

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The combustion model, based on the idea of combustible mixture ignition by turbulent pulsations of the burned gas moles, is proposed. The model includes increasing of lean region of ignition with temperature increase and gas swirling effect on burning rate. Comparison of the two schemes of burnings of lean mixtures in proposition of equal mass flows and velocities of fuel mixtures shows that at swirling only central flow mean burning efficiency at initial part of tube is more for inverted (outward) scheme of ignition. Full burning of mixture for tradition scheme is realized more effectively.