Effects of Hydrogen Peroxide on Methane Premixed Flames

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Abstract

This study examines the effect of purified hydrogen peroxide on premixed methane-air flames via detail chemical kinetics. Numerical results indicate the effects of hydrogen peroxide addition on the reaction path, laminar burning velocity, flame temperature and pollutant formation using CHEMIKIN Collection with GRI-Mech 3.0 chemical mechanisms.

Keyword：Hydrogen peroxide, Laminar burning velocity, Chemical structure