

Behaviors of Blended CH<sub>4</sub>/CO Premixed Jet Flames—Experimental Measurement  
and Numerical Validation

吳志勇, 趙怡欽, 陳志鵬, 連永生, 鄭藏勝

Mechanical Engineering

Engineering

tscheng@chu.edu.tw

Abstract

The combustion characteristics of the stoichiometric, premixed CH<sub>4</sub>/CO/air jet flames are experimentally and numerically studied. The flame structures are calculated using the CFD-ACE coupled with multi-component transport model and GRI-Mech 3.0 chemical kinetic mechanisms. Results show that the predicted flame geometry and flow field are in good agreement with the laser diagnostic measurement data.

Keyword : CH<sub>4</sub>/CO jet flame; DPIV; LIPF-OH