

INFRARED ANALYSIS OF COMBUSTION PRODUCTS AND INTERMEDIATES OF HYDROCARBON COMBUSTION FOR SEVERAL SPECIES

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Hydrocarbons, especially large ones such as isooctane, have infrared active species that give insight into combustion stoichiometry and temperature. Here a Fourier-transform infrared spectrometer is utilized to study the IR active species for a number of stoichiometric conditions for several fuels including isooctane, kerosene, and ethanol. Special attention is given to intermediate species in different flame regions.