THE UNIVERSITY OF ADELAIDE

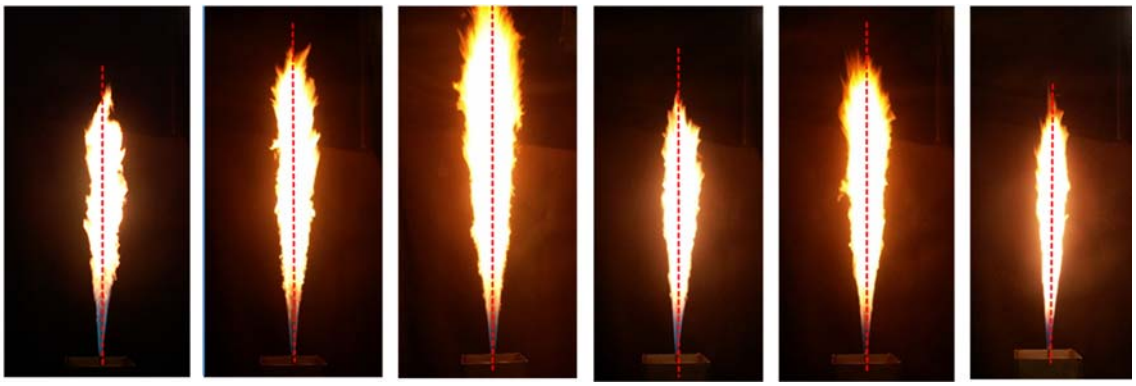
ADELAIDE JET FLAMES 1—6

A set of turbulent non premixed flames burning a mixture of C_2H_4/ H_2/N_2, with a 40%, 41%, 19% nominal composition by volume, respectively, at ambient STP conditions (21.1°C, 1 bar)

Available Data

Burner/Co-flow Air Specifications , Fuel Composition, Flow Conditions
Exit Velocity and Turbulence Intensity Profiles,
Centreline Temperature Profile, Soot Volume Fraction Measurements.
Global Emissions Measurements, Radiant Intensity Measurements .

- Geometry, measurement details, spatial resolution and accuracy are available separately for each flame in pdf file formats.
- Tabulated data for undertaken measurements are available in an excel sheet format
- Videos for all six flames are also uploaded



	Jet Flame 1	Jet Flame 2	Jet Flame 3	Jet Flame 4	Jet Flame 5	Jet Flame 6
	C2H4-H2-N2-D44-15K	C2H4-H2-N2-D58-15K	C2H4-H2-N2-D80-15K	C2H4-H2-N2-D44-09K	C2H4-H2-N2-D58-08K	C2H4-H2-N2-D44-05K
Jet Diameter (mm)	4.4	5.8	8	4.4	5.8	4.4
Exit Reynolds #	15,000	15,000	15,000	9,000	8,000	5,000
Exit Strain Rate (s^{-1})	12,900	7,500	4,100	7,500	4,100	4,100