

Micromix Combustion Research

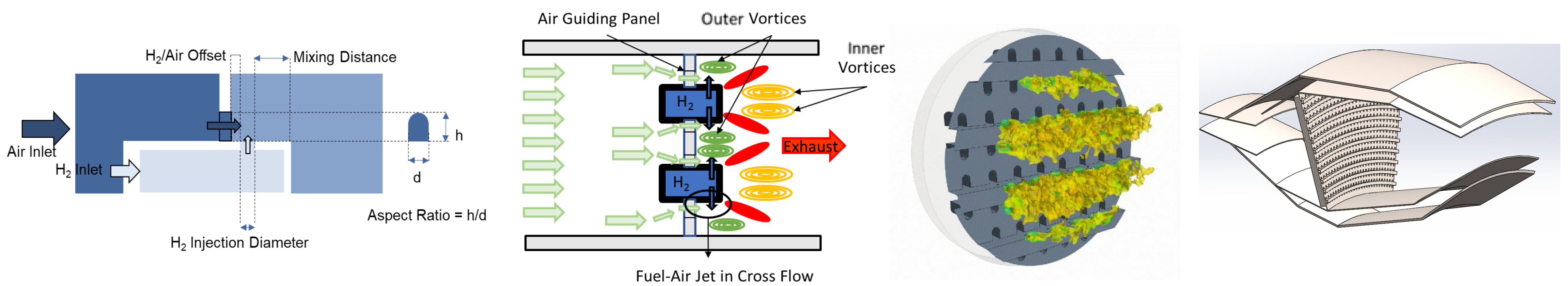
Phase 1: Small-scale injector array

Phase 2: Full annular combustor segment

Phase 3: Sub-atmospheric altitude relight capability

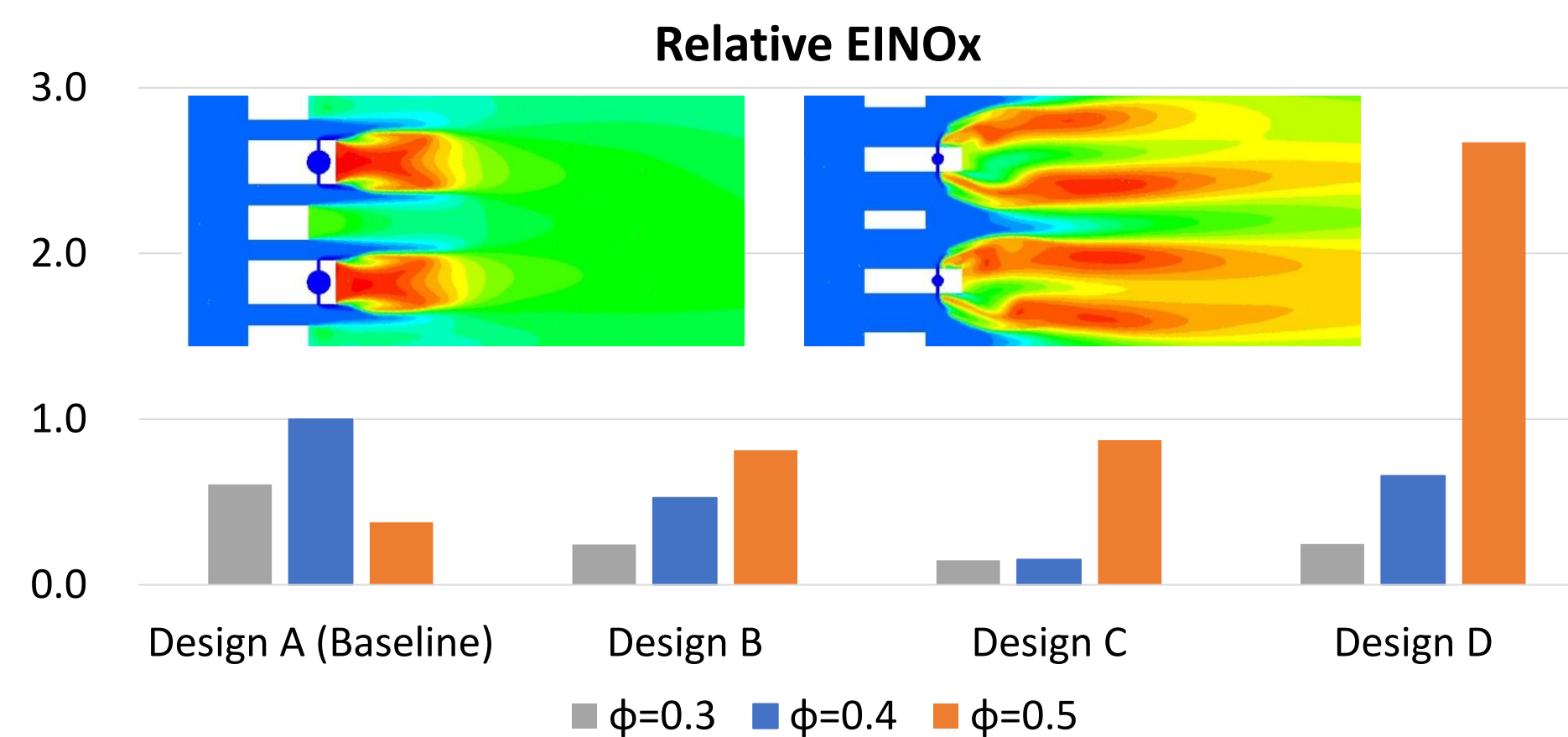
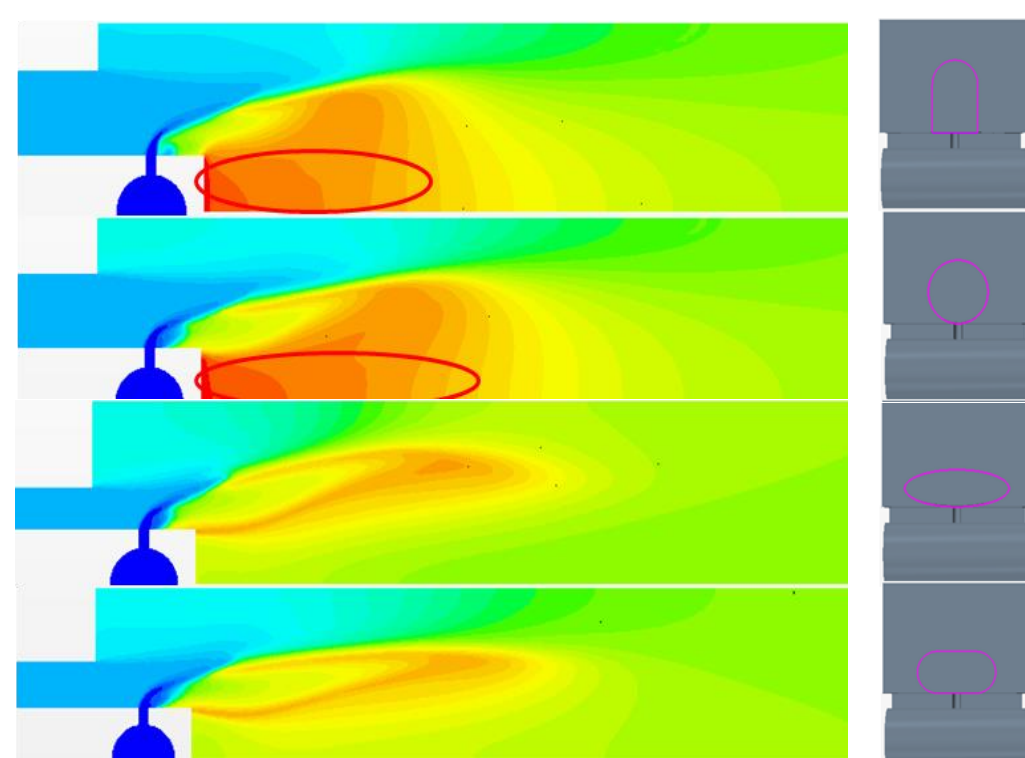


Micromix Concept & Development

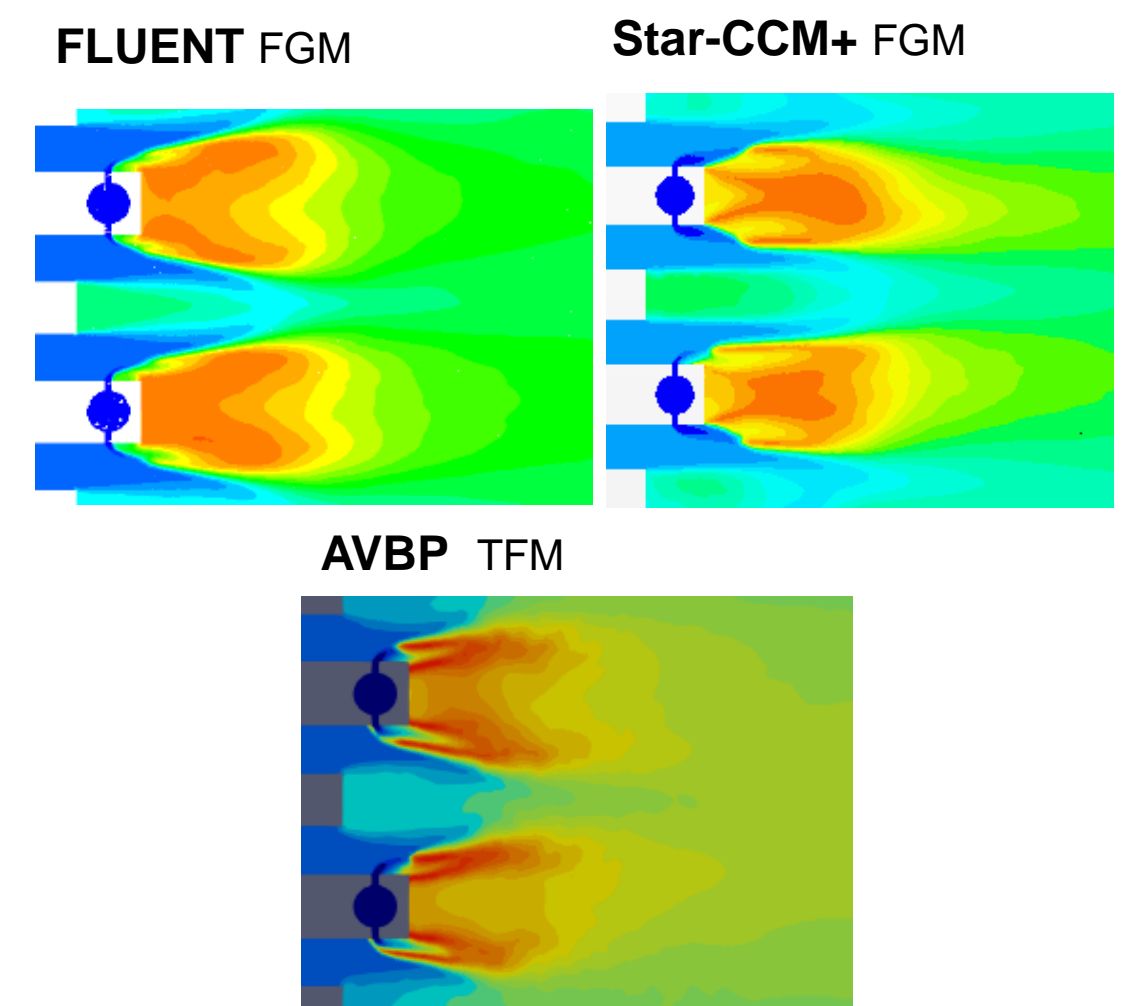


Numerical Research

Design Space Exploration and Emission Prediction



CFD Model Evaluation



Test Conditions

Operating Conditions	Range	
Pressure (bar)	1	15
Air Temperature (K)	300	600
Equivalence Ratio (-)	LBO*	0.5
Fuel Mass Flow (g/s)	0.05	2
Air Mass Flow (g/s)	10	100

Experimental Research

- Flame visualization, imaging
- Emissions, temperature, pressure loss measurement
- Thermoacoustic instability analysis

Pebble Bed Heater Facility



Phase 1 Rig Design

