Highlights for “Backdraft Experiments and Large Eddy Simulations in a Scaled Compartment”

• Initial conditions for computer fire models are defined from an extensive dataset of backdraft experiments performed at NIST.

• Chemical composition and heat measurements from these experiments are intended to assess fire models.

• The Fire Dynamics Simulator with fast chemistry is exercised on some of these backdraft scenarios.

• For mix-controlled fast reactions, ignition model temperature threshold and ignition procedure are found to play a primary role in backdraft outcomes.