

1. menu bar

2. tabs

3. sub-tabs

4. control panel

5. command window

6. dialog box

7. lamp

File Help

SetupResults

InputsQuick settings

Define reactants and species to be considered

Reactants

Acetylene + Air

Products

Soot formation Extended

List of Species - 94

CO2
CO
H2O
H2
O2

% Fuel

3.652

O/F

26.38

Phi

[0.5:0.05:4]

Species	N° moles	Mole fraction	Type	Temperature [K]
N2	18.8095	0.7582	Oxidizer	300
O2	5.0000	0.2015	Oxidizer	300
C2H2_acetylene	1.0000	0.0403	Fuel	300

Select Problem Type

HP: Adiabatic T and composition at constant P

☐ Frozen chemistry

Define state of reactants and products

Reactants

300

1

Temperature [K]

Pressure [bar]

Products

1

Additional constraints

Products

Constant Enthalpy: $h_P = h_R$

Calculate

Clear

Welcome to Combustion Toolbox v1.0.0 --- A MATLAB-GUI based open-source tool for solving gaseous combustion problems.

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