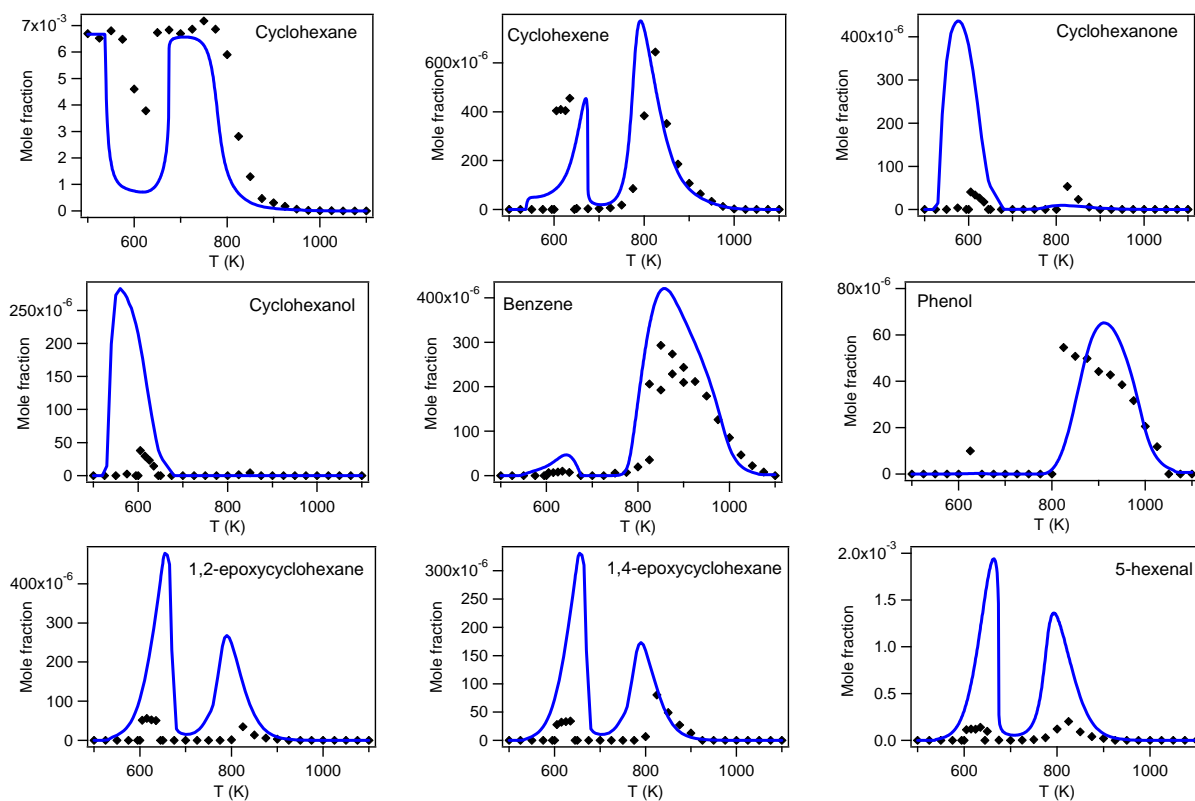
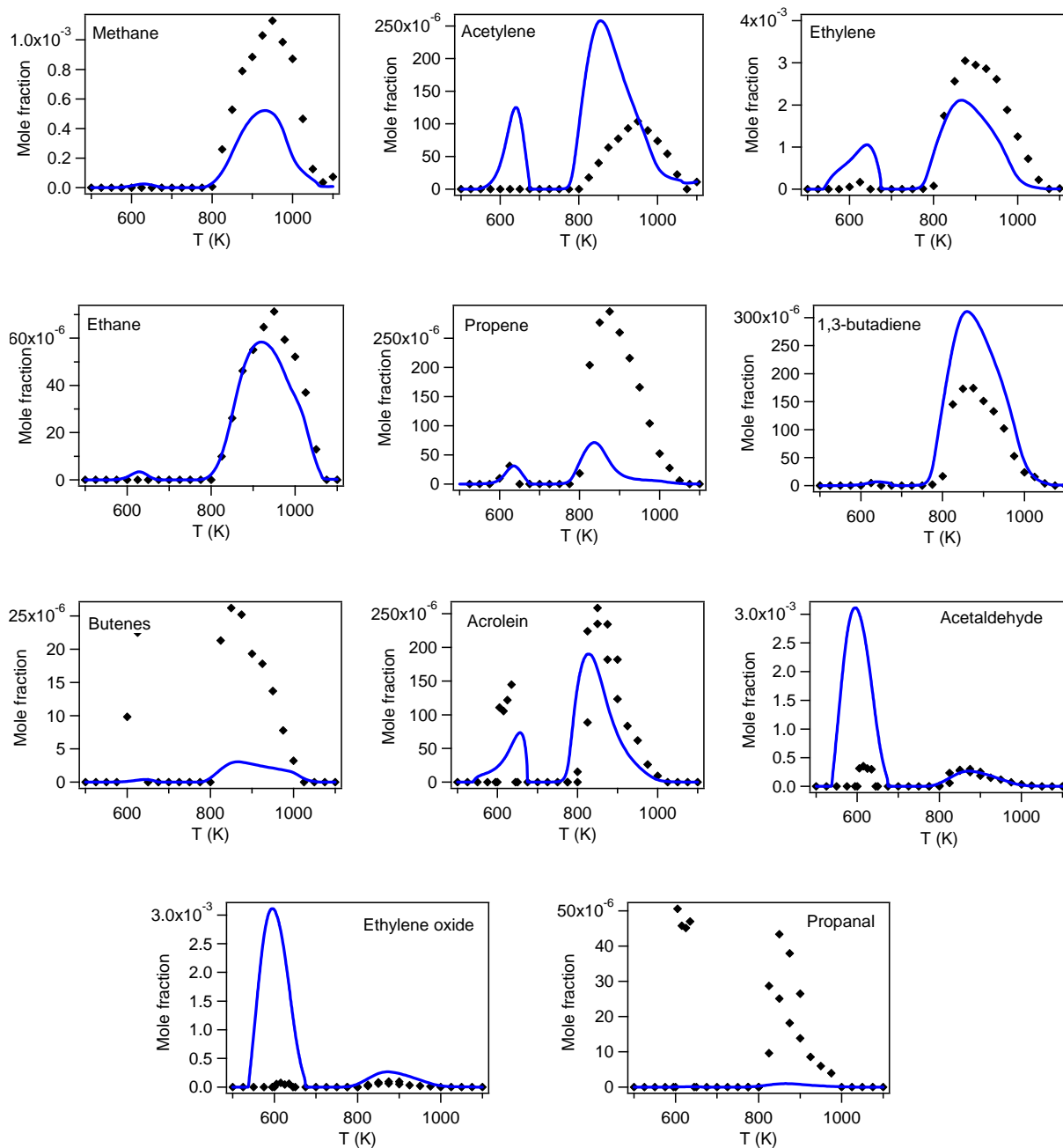


## Simulation of the present experimental data using Sirjean mechanism [28]



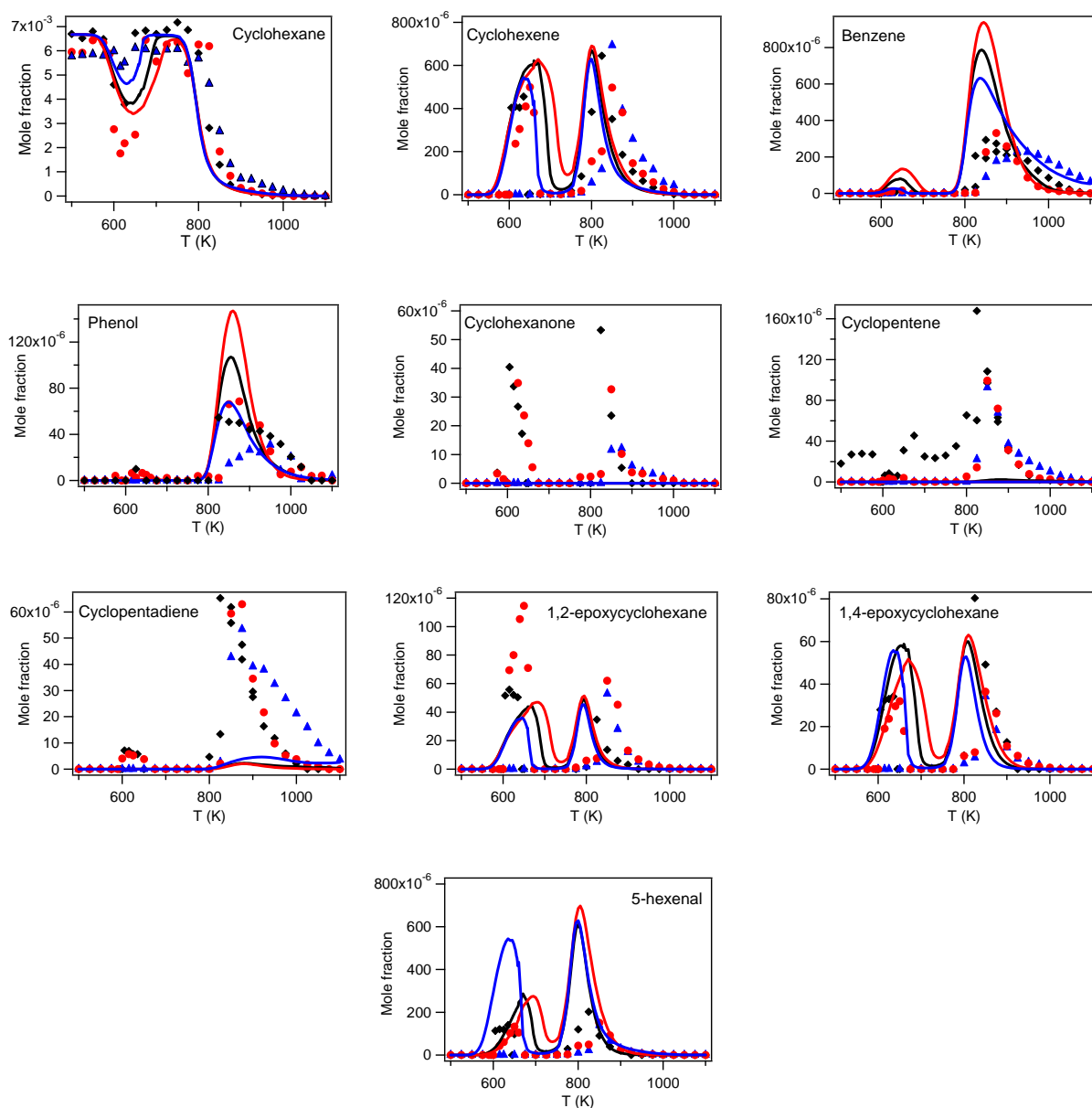
**Figure S6.** Mole fractions of the present experimental data (cyclic species and 5-hexenal) using Sirjean mechanism ( $\phi = 1$ ).



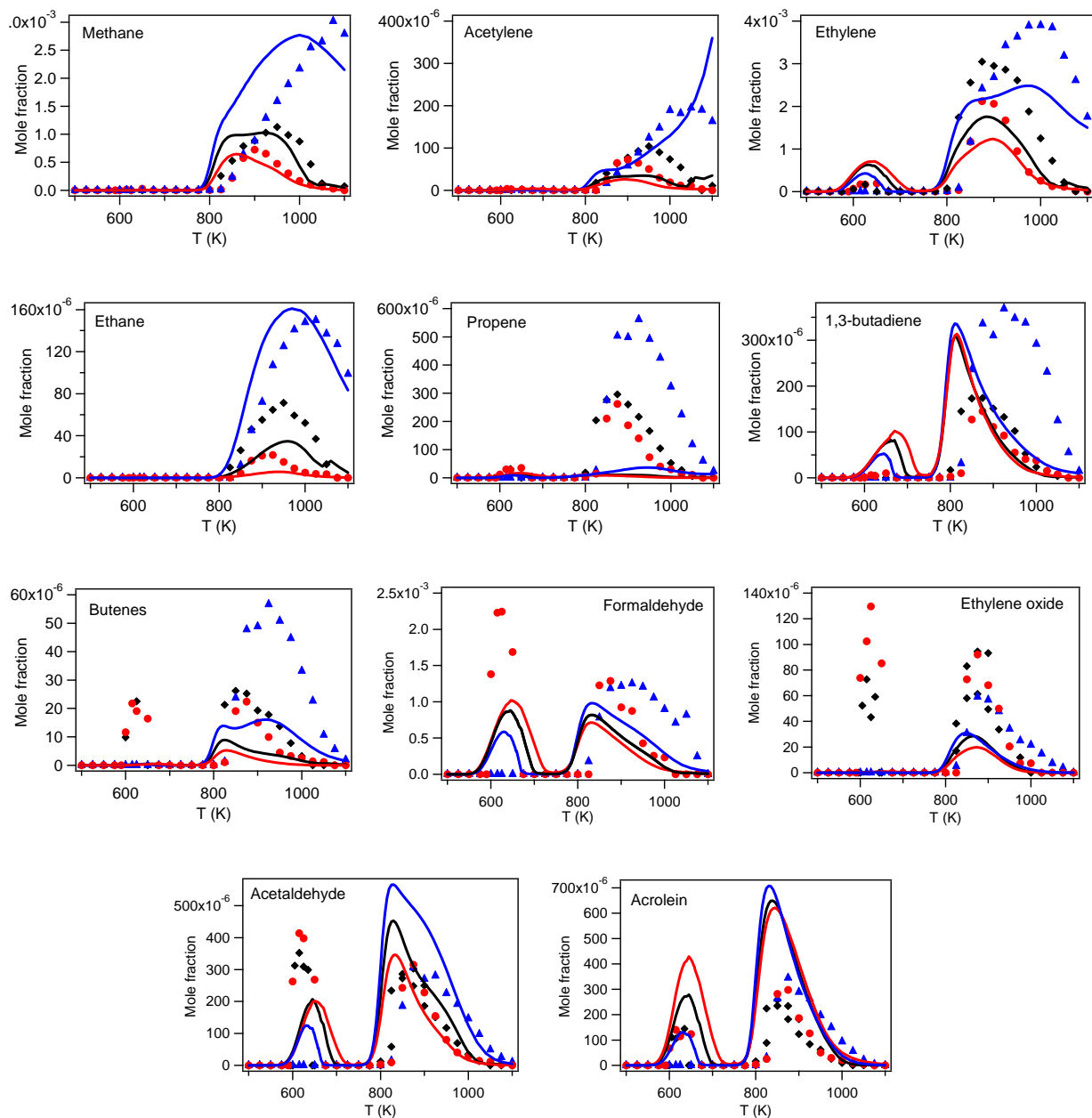
**Figure S7.** Mole fractions of the present experimental data (C<sub>1</sub>-C<sub>4</sub> species) using Sirjean mechanism ( $\phi = 1$ ).

## Simulation of the present experimental data using Silke mechanism [25]

Black, ( $\phi = 1$ ), red ( $\phi = 0.5$ ) and blue ( $\phi = 2$ )



**Figure S8.** Mole fractions of the present experimental data (cyclic species and 5-hexenal) using Silke mechanism. Note that cyclohexanol is not defined in the mechanism.



**Figure S9.** Mole fractions of the present experimental data (C<sub>1</sub>-C<sub>4</sub> species) using Silke mechanism (no propanal prediction)