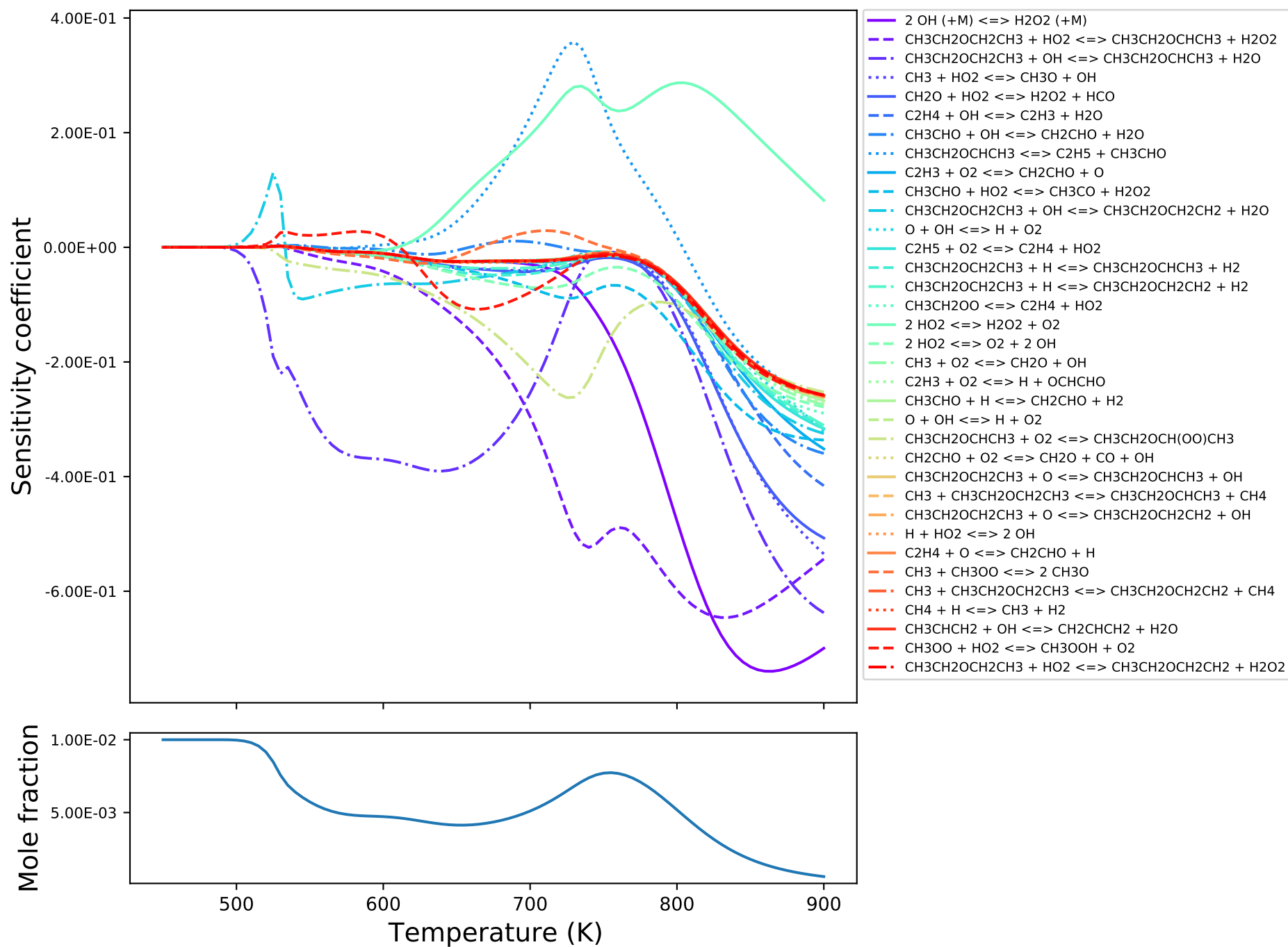
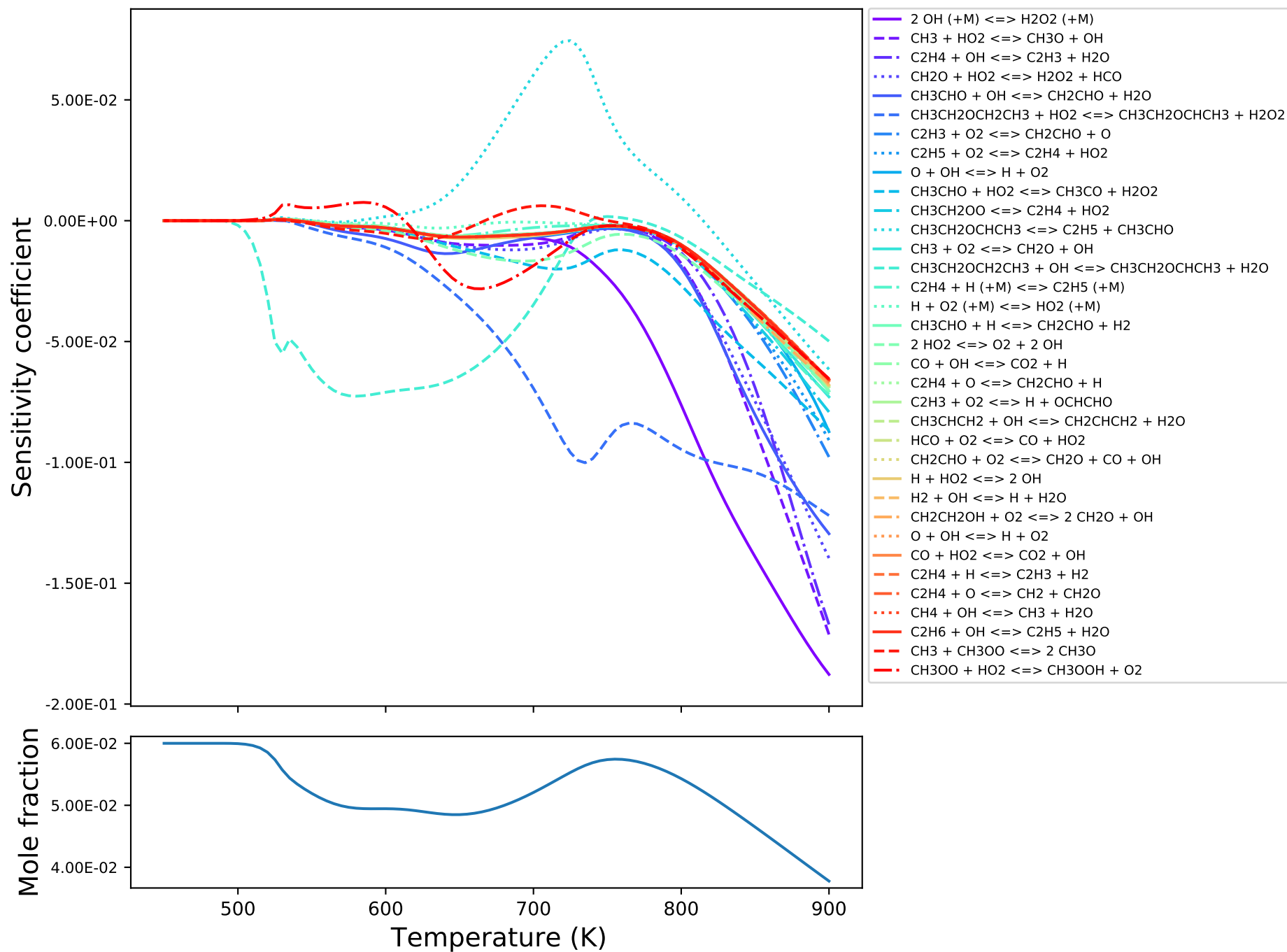
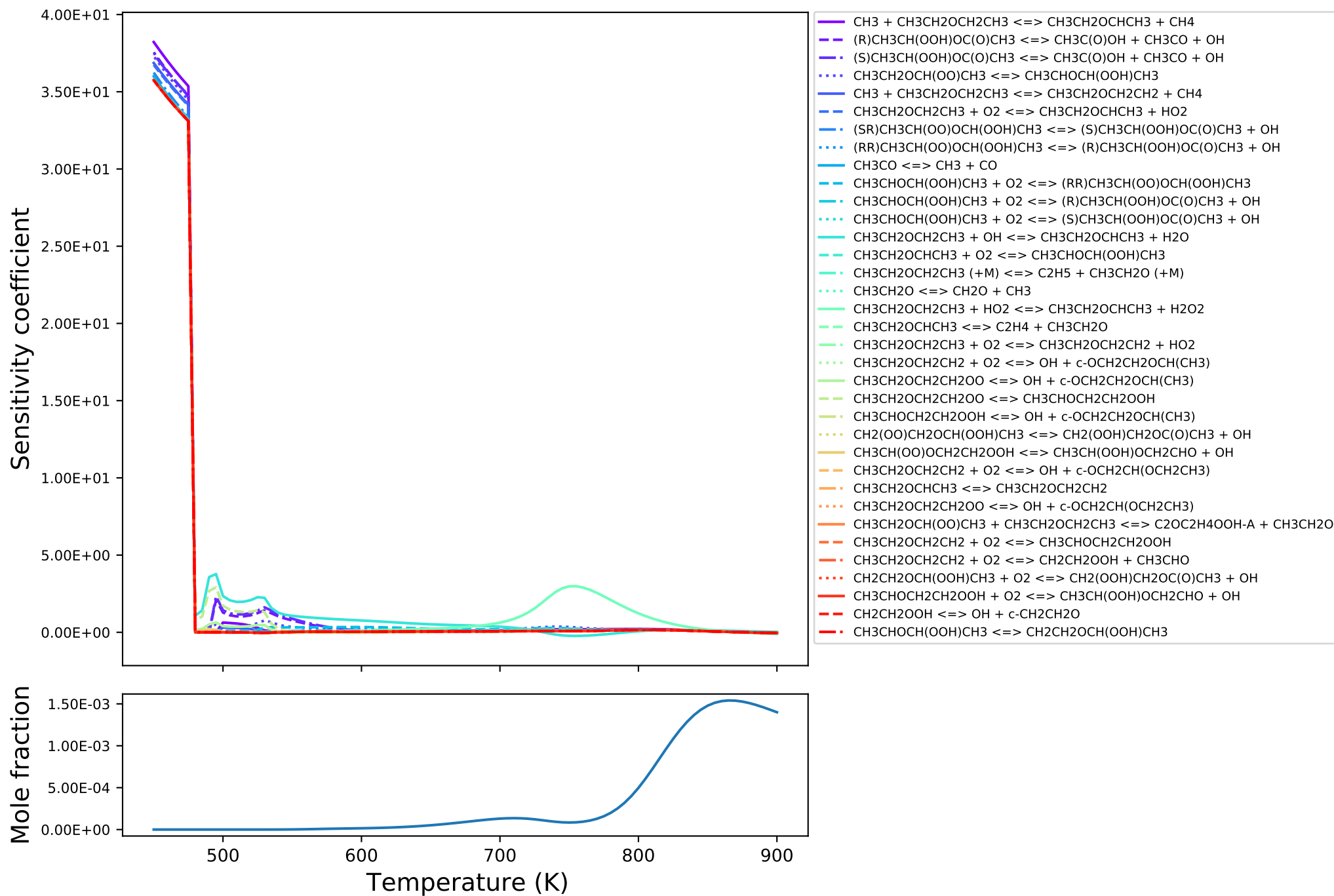


$$\text{CH}_3\text{CH}_2\text{OCH}_2\text{CH}_3$$


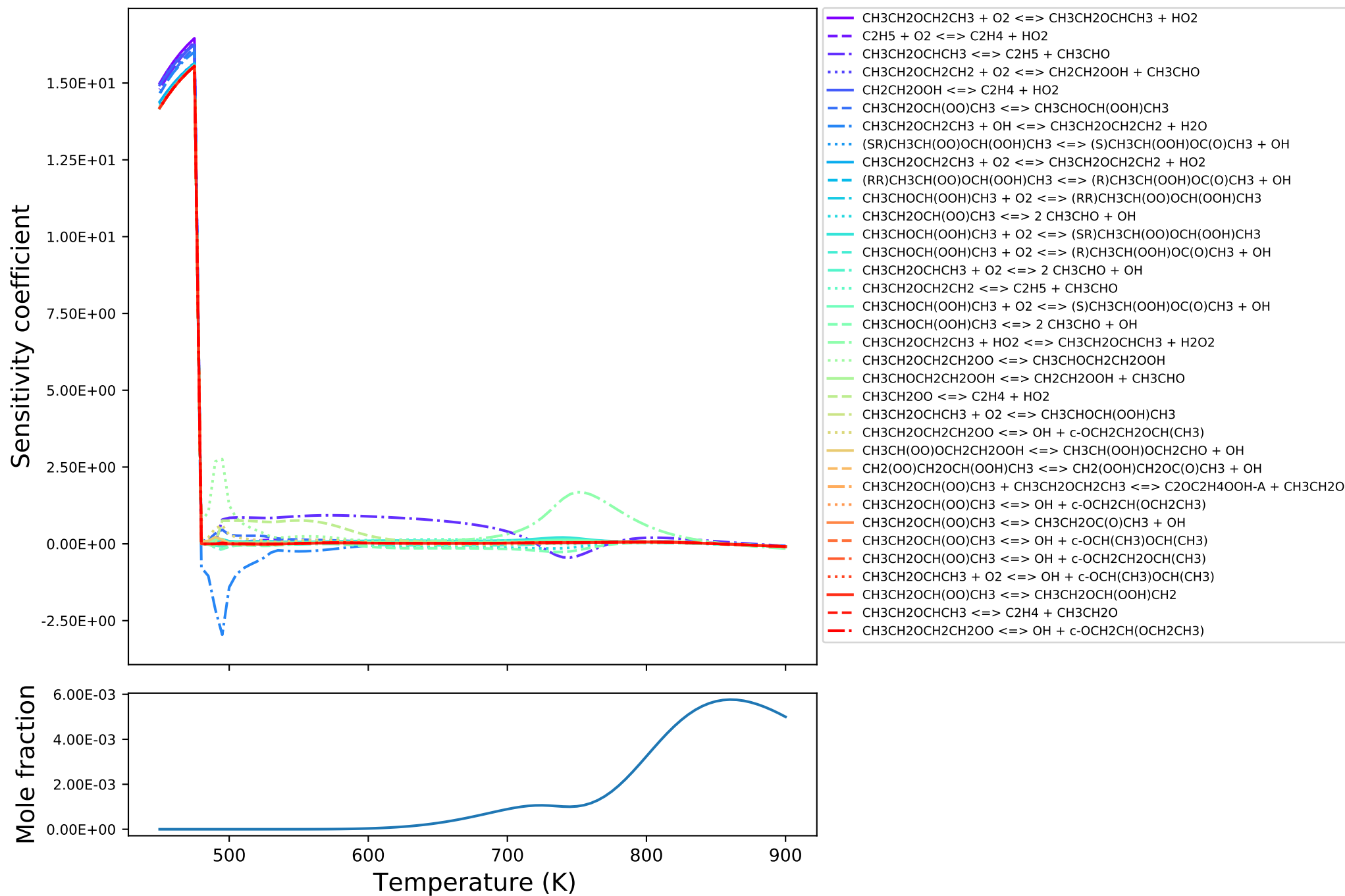
# O2



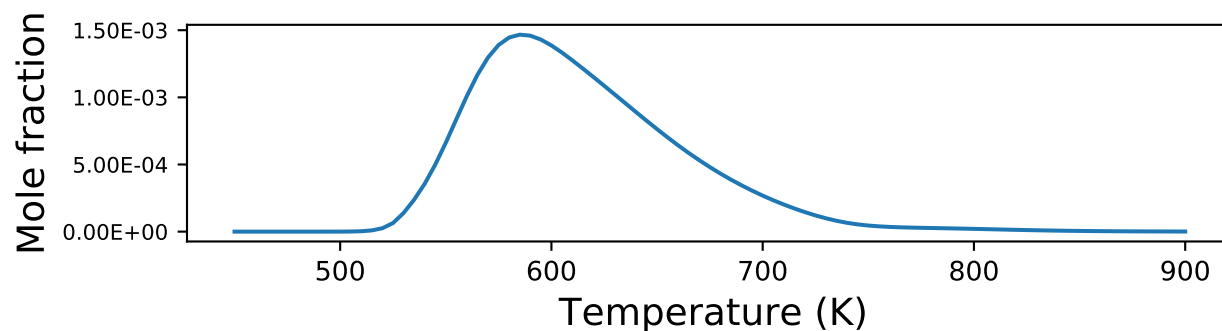
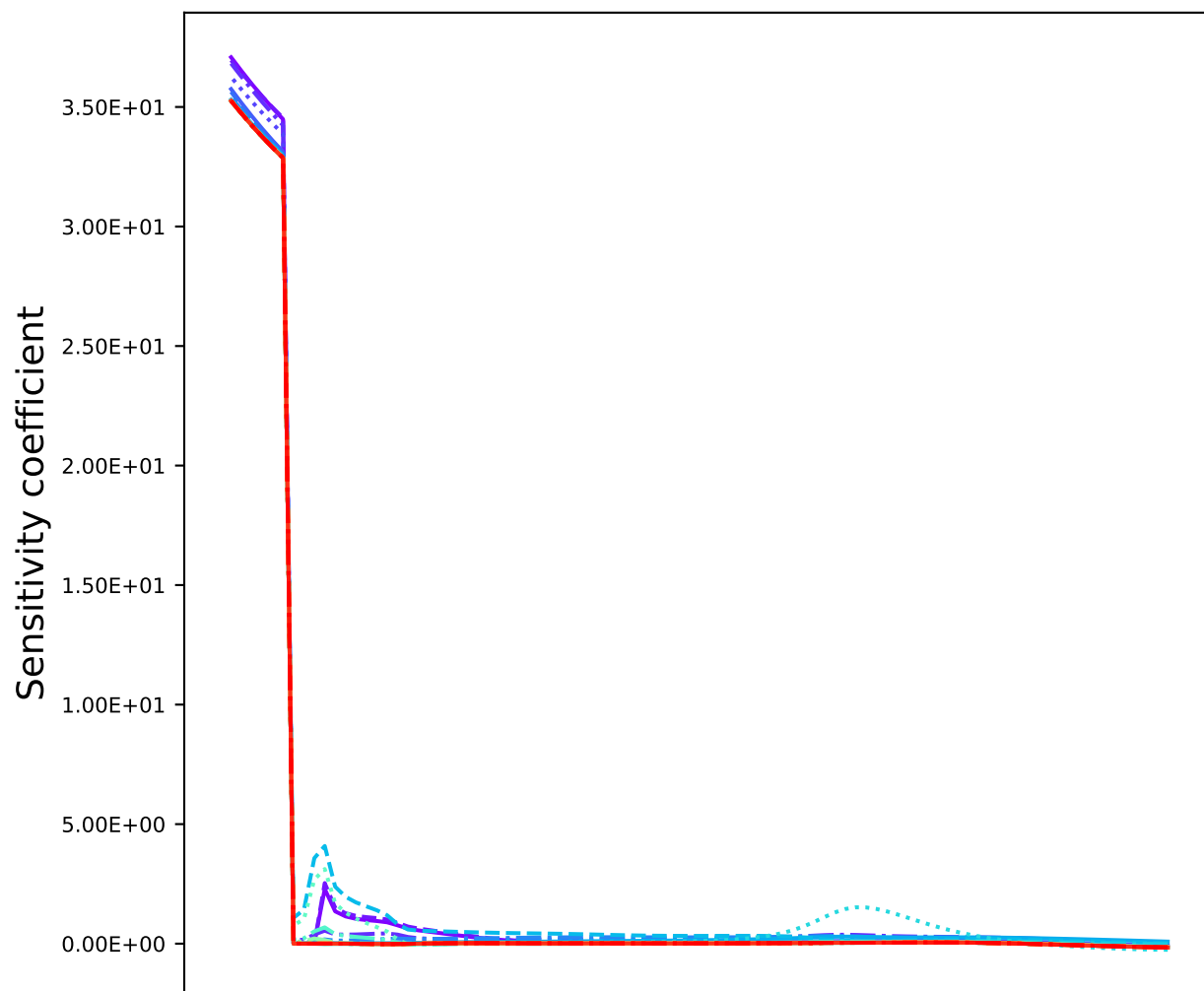
# CH4



# C2H4

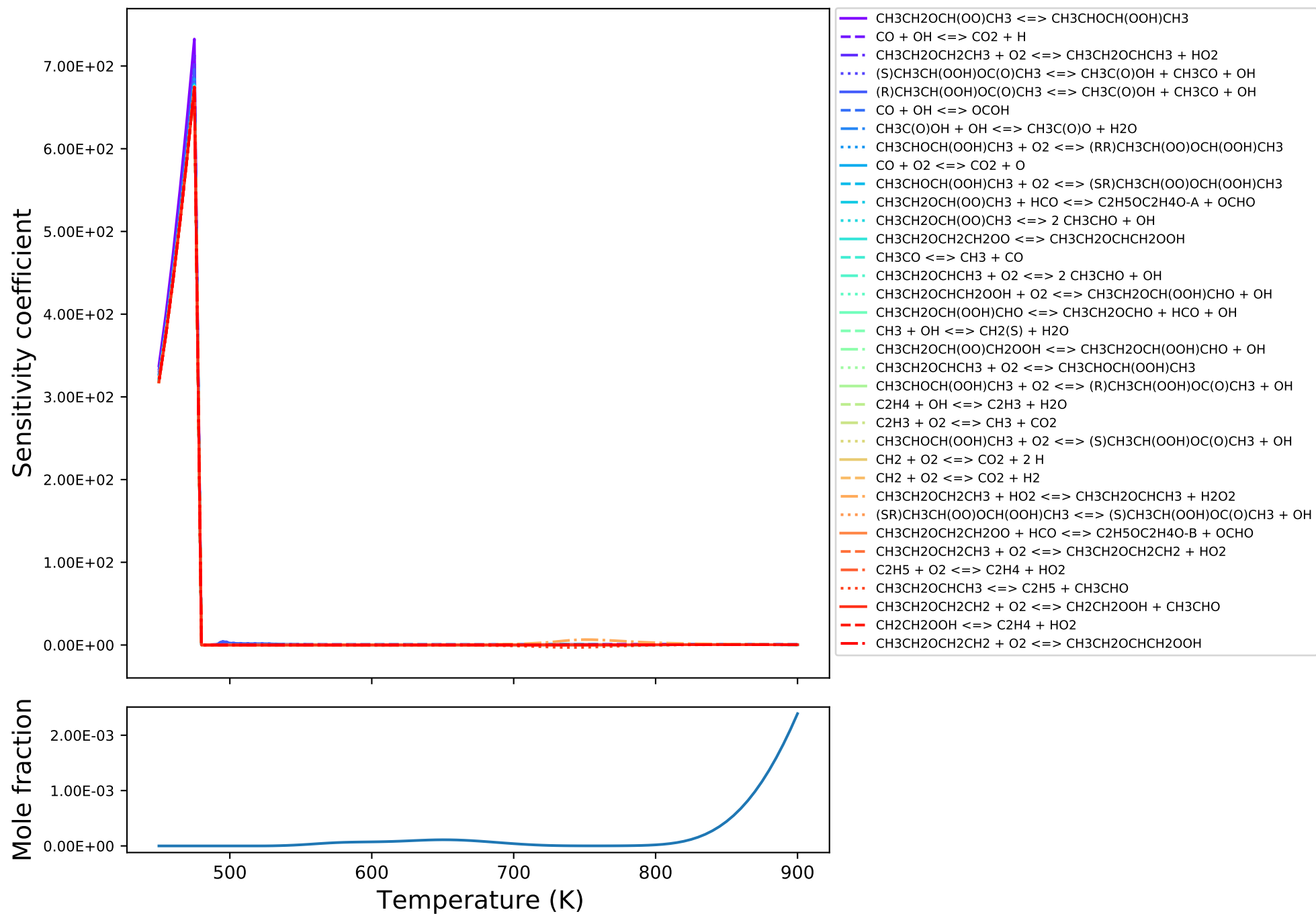


# CH<sub>3</sub>C(O)OH

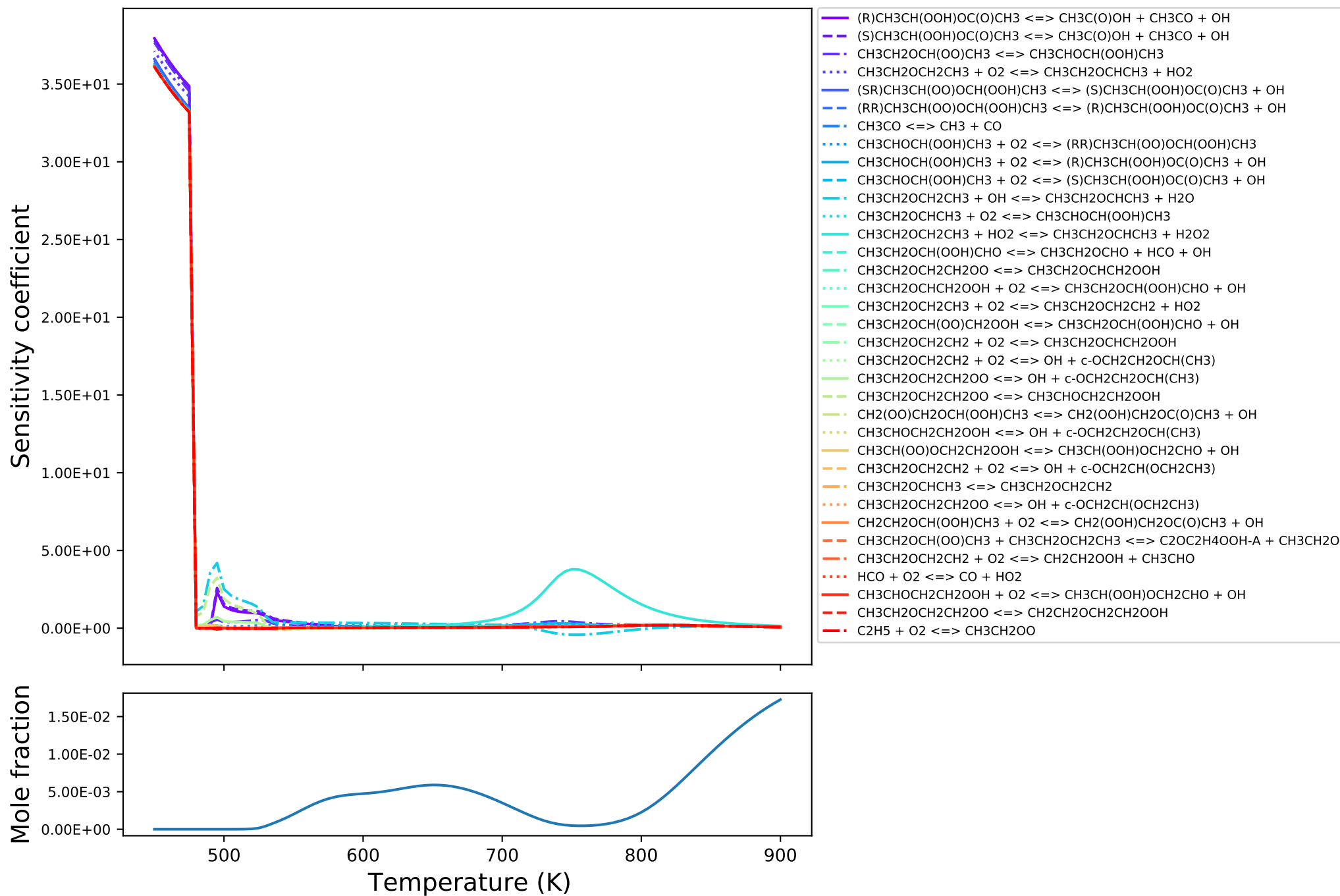


- (R)CH<sub>3</sub>CH(OOH)OC(O)CH<sub>3</sub> <=> CH<sub>3</sub>C(O)OH + CH<sub>3</sub>CO + OH
- - (S)CH<sub>3</sub>CH(OOH)OC(O)CH<sub>3</sub> <=> CH<sub>3</sub>C(O)OH + CH<sub>3</sub>CO + OH
- · · CH<sub>3</sub>CH<sub>2</sub>OCH(OO)CH<sub>3</sub> <=> CH<sub>3</sub>CHOCH(OOH)CH<sub>3</sub>
- · · CH<sub>3</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>3</sub> + O<sub>2</sub> <=> CH<sub>3</sub>CH<sub>2</sub>OCHCH<sub>3</sub> + HO<sub>2</sub>
- (SR)CH<sub>3</sub>CH(OO)OCH(OOH)CH<sub>3</sub> <=> (S)CH<sub>3</sub>CH(OOH)OC(O)CH<sub>3</sub> + OH
- - (RR)CH<sub>3</sub>CH(OO)OCH(OOH)CH<sub>3</sub> <=> (R)CH<sub>3</sub>CH(OOH)OC(O)CH<sub>3</sub> + OH
- · · CH<sub>3</sub>CHOCH(OOH)CH<sub>3</sub> + O<sub>2</sub> <=> (RR)CH<sub>3</sub>CH(OO)OCH(OOH)CH<sub>3</sub>
- · · CH<sub>3</sub>CHOCH(OOH)CH<sub>3</sub> + O<sub>2</sub> <=> (R)CH<sub>3</sub>CH(OOH)OC(O)CH<sub>3</sub> + OH
- CH<sub>3</sub>CHOCH(OOH)CH<sub>3</sub> + O<sub>2</sub> <=> (S)CH<sub>3</sub>CH(OOH)OC(O)CH<sub>3</sub> + OH
- - CH<sub>3</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>3</sub> + OH <=> CH<sub>3</sub>CH<sub>2</sub>OCHCH<sub>3</sub> + H<sub>2</sub>O
- · · CH<sub>3</sub>CH<sub>2</sub>OCHCH<sub>3</sub> + O<sub>2</sub> <=> CH<sub>3</sub>CHOCH(OOH)CH<sub>3</sub>
- · · CH<sub>3</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>3</sub> + HO<sub>2</sub> <=> CH<sub>3</sub>CH<sub>2</sub>OCHCH<sub>3</sub> + H<sub>2</sub>O<sub>2</sub>
- CH<sub>3</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>3</sub> + O<sub>2</sub> <=> CH<sub>3</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub> + HO<sub>2</sub>
- - CH<sub>3</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub> + O<sub>2</sub> <=> OH + c-OCH<sub>2</sub>CH<sub>2</sub>OCH(CH<sub>3</sub>)
- · · CH<sub>3</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>OO <=> OH + c-OCH<sub>2</sub>CH<sub>2</sub>OCH(CH<sub>3</sub>)
- · · CH<sub>3</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>OO <=> CH<sub>3</sub>CHOCH<sub>2</sub>CH<sub>2</sub>OOH
- CH<sub>3</sub>CHOCH<sub>2</sub>CH<sub>2</sub>OOH <=> OH + c-OCH<sub>2</sub>CH<sub>2</sub>OCH(CH<sub>3</sub>)
- - CH<sub>2</sub>(OO)CH<sub>2</sub>OCH(OOH)CH<sub>3</sub> <=> CH<sub>2</sub>(OOH)CH<sub>2</sub>OC(O)CH<sub>3</sub> + OH
- · · CH<sub>3</sub>CH(OO)OCH<sub>2</sub>CH<sub>2</sub>OOH <=> CH<sub>3</sub>CH(OOH)OCH<sub>2</sub>CHO + OH
- · · CH<sub>3</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub> + O<sub>2</sub> <=> OH + c-OCH<sub>2</sub>CH(OCH<sub>2</sub>CH<sub>3</sub>)
- CH<sub>3</sub>CH<sub>2</sub>OCHCH<sub>3</sub> <=> CH<sub>3</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>
- - CH<sub>3</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>OO <=> OH + c-OCH<sub>2</sub>CH(OCH<sub>2</sub>CH<sub>3</sub>)
- · · CH<sub>3</sub>CH<sub>2</sub>OCH(OO)CH<sub>3</sub> + CH<sub>3</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>3</sub> <=> C<sub>2</sub>O<sub>2</sub>C<sub>2</sub>H<sub>4</sub>OOH-A + CH<sub>3</sub>CH<sub>2</sub>O
- · · CH<sub>3</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub> + O<sub>2</sub> <=> CH<sub>3</sub>CHOCH<sub>2</sub>CH<sub>2</sub>OOH
- CH<sub>3</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub> + O<sub>2</sub> <=> CH<sub>2</sub>CH<sub>2</sub>OOH + CH<sub>3</sub>CHO
- - CH<sub>2</sub>CH<sub>2</sub>OCH(OOH)CH<sub>3</sub> + O<sub>2</sub> <=> CH<sub>2</sub>(OOH)CH<sub>2</sub>OC(O)CH<sub>3</sub> + OH
- · · CH<sub>3</sub>CHOCH<sub>2</sub>CH<sub>2</sub>OOH + O<sub>2</sub> <=> CH<sub>3</sub>CH(OOH)OCH<sub>2</sub>CHO + OH
- · · CH<sub>2</sub>CH<sub>2</sub>OOH <=> OH + c-CH<sub>2</sub>CH<sub>2</sub>O
- CH<sub>3</sub>CHOCH(OOH)CH<sub>3</sub> <=> CH<sub>2</sub>CH<sub>2</sub>OCH(OOH)CH<sub>3</sub>
- - CH<sub>3</sub>CHOCH(OOH)CH<sub>3</sub> <=> OH + c-OCH<sub>2</sub>CH<sub>2</sub>OCH(CH<sub>3</sub>)
- · · CH<sub>2</sub>CH<sub>2</sub>OCH(OOH)CH<sub>3</sub> <=> 2 CH<sub>3</sub>CHO + OH
- · · CH<sub>3</sub>CH<sub>2</sub>OCHCH<sub>2</sub>OOH <=> OH + c-OCH<sub>2</sub>CH(OCH<sub>2</sub>CH<sub>3</sub>)
- CH<sub>3</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>OO <=> CH<sub>3</sub>CH<sub>2</sub>OCHCH<sub>2</sub>OOH
- - CH<sub>3</sub>CH<sub>2</sub>OCH(OOH)CH<sub>2</sub> <=> OH + c-OCH<sub>2</sub>CH(OCH<sub>2</sub>CH<sub>3</sub>)
- · · CH<sub>3</sub>CHOCH(OOH)CH<sub>3</sub> <=> CH<sub>3</sub>CH<sub>2</sub>OC(O)CH<sub>3</sub> + OH

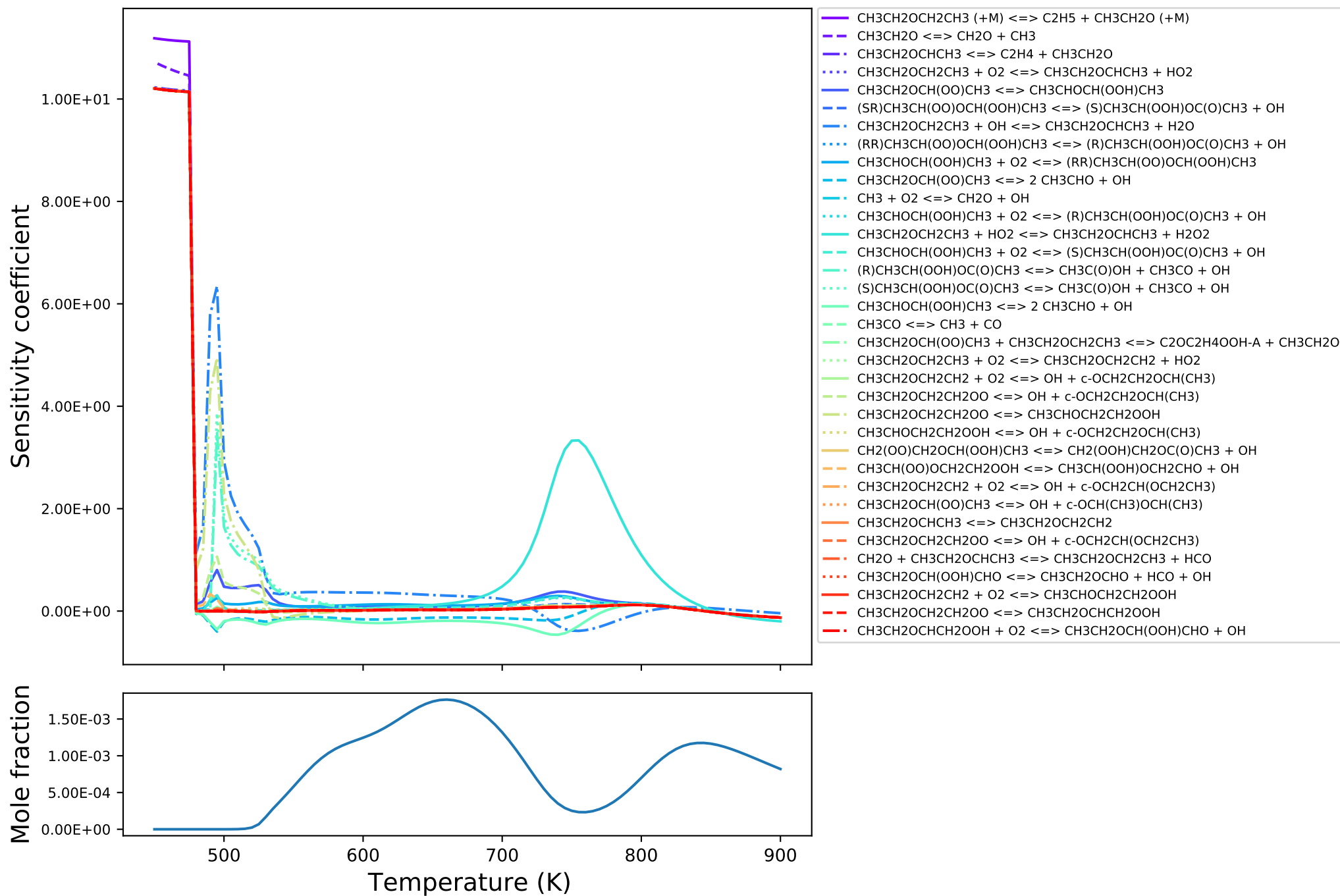
# CO2



# CO

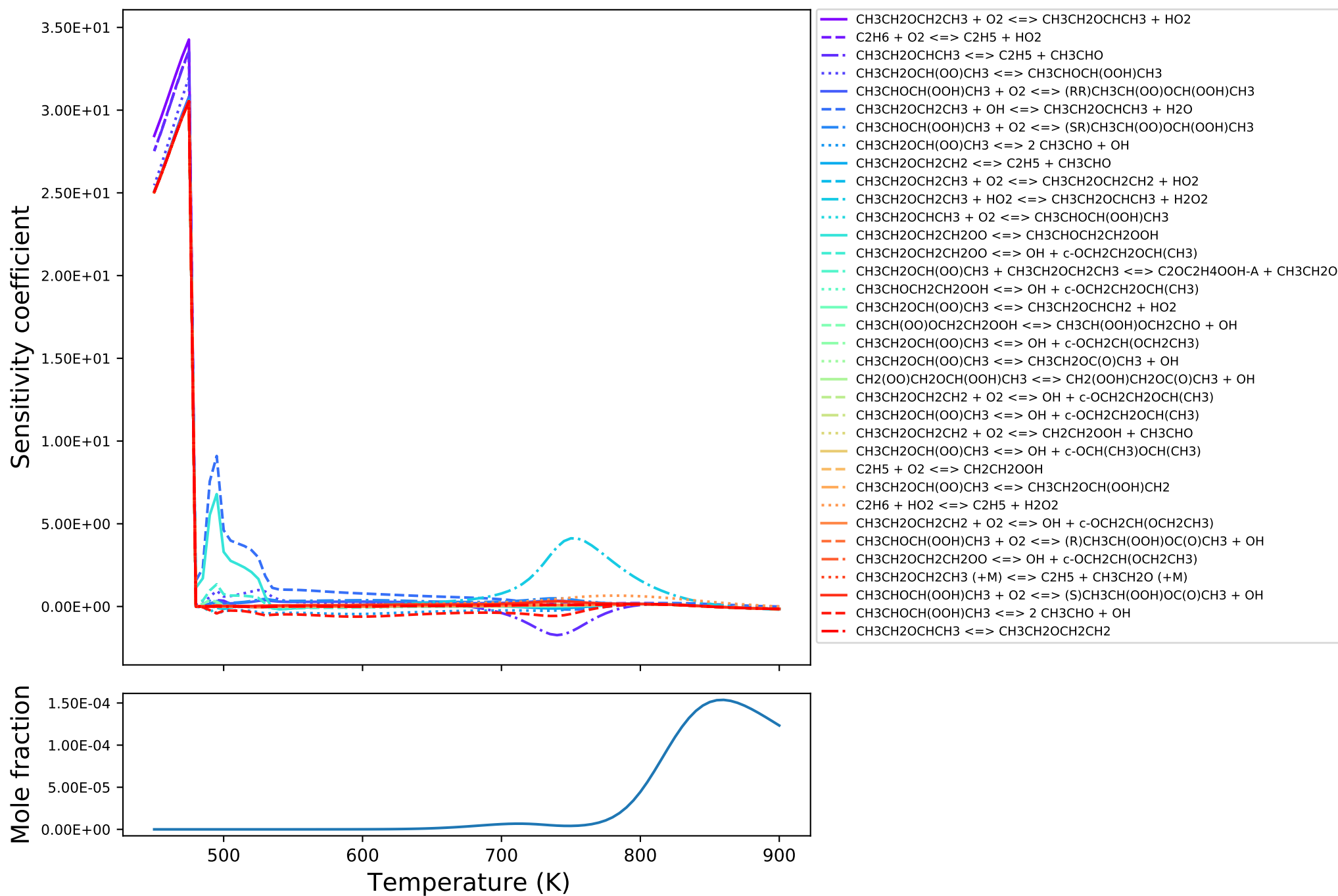


# CH2O

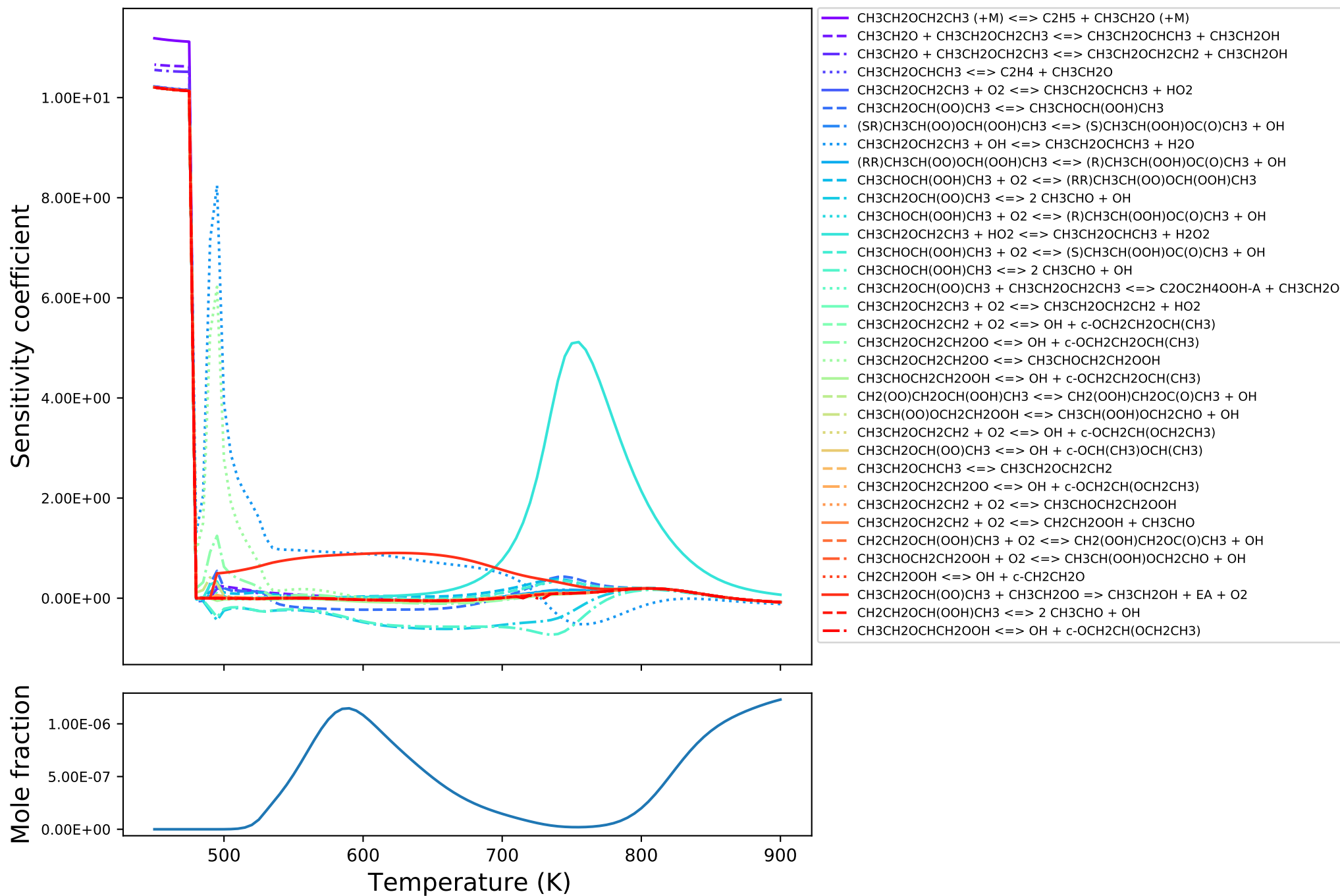




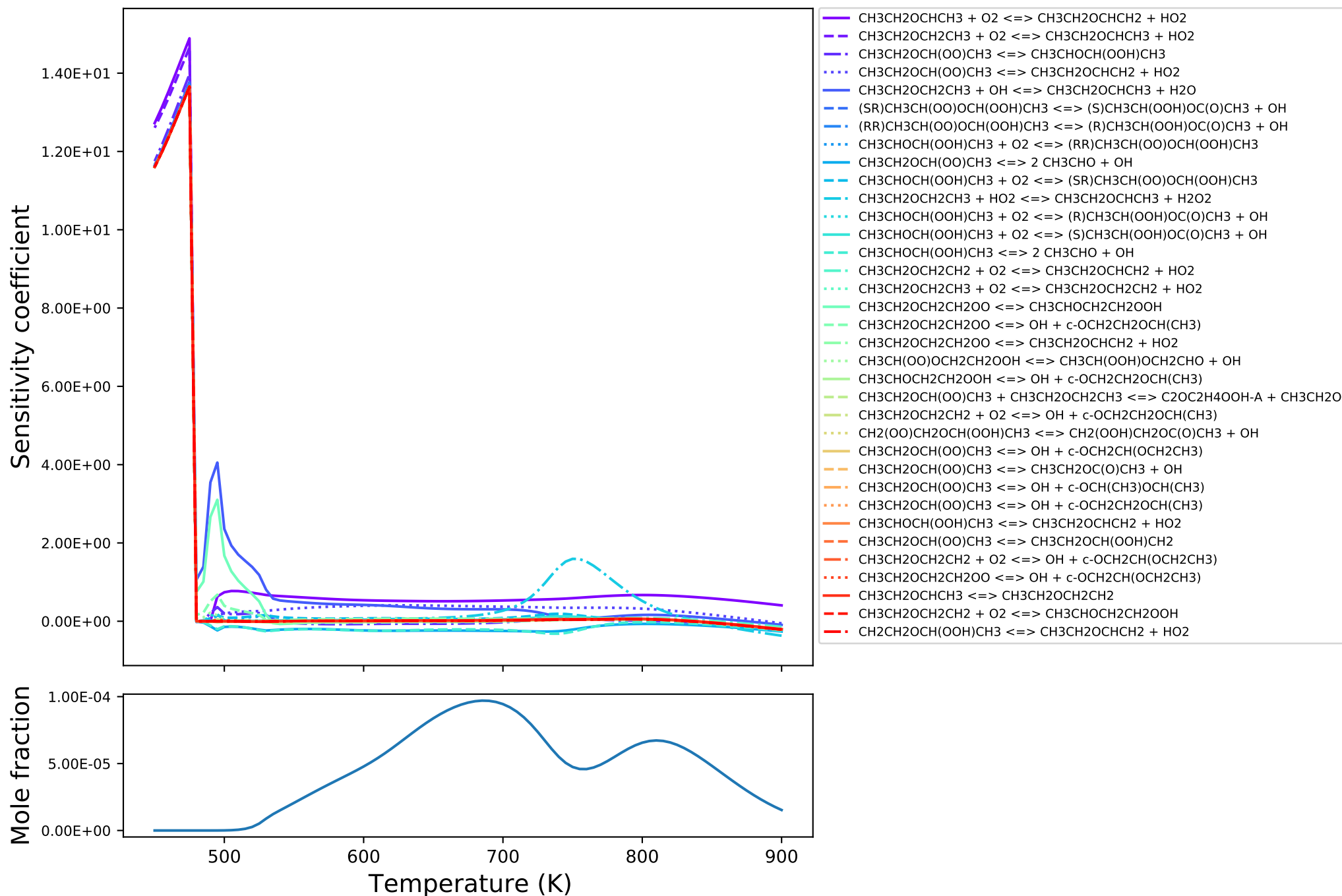
# C2H6



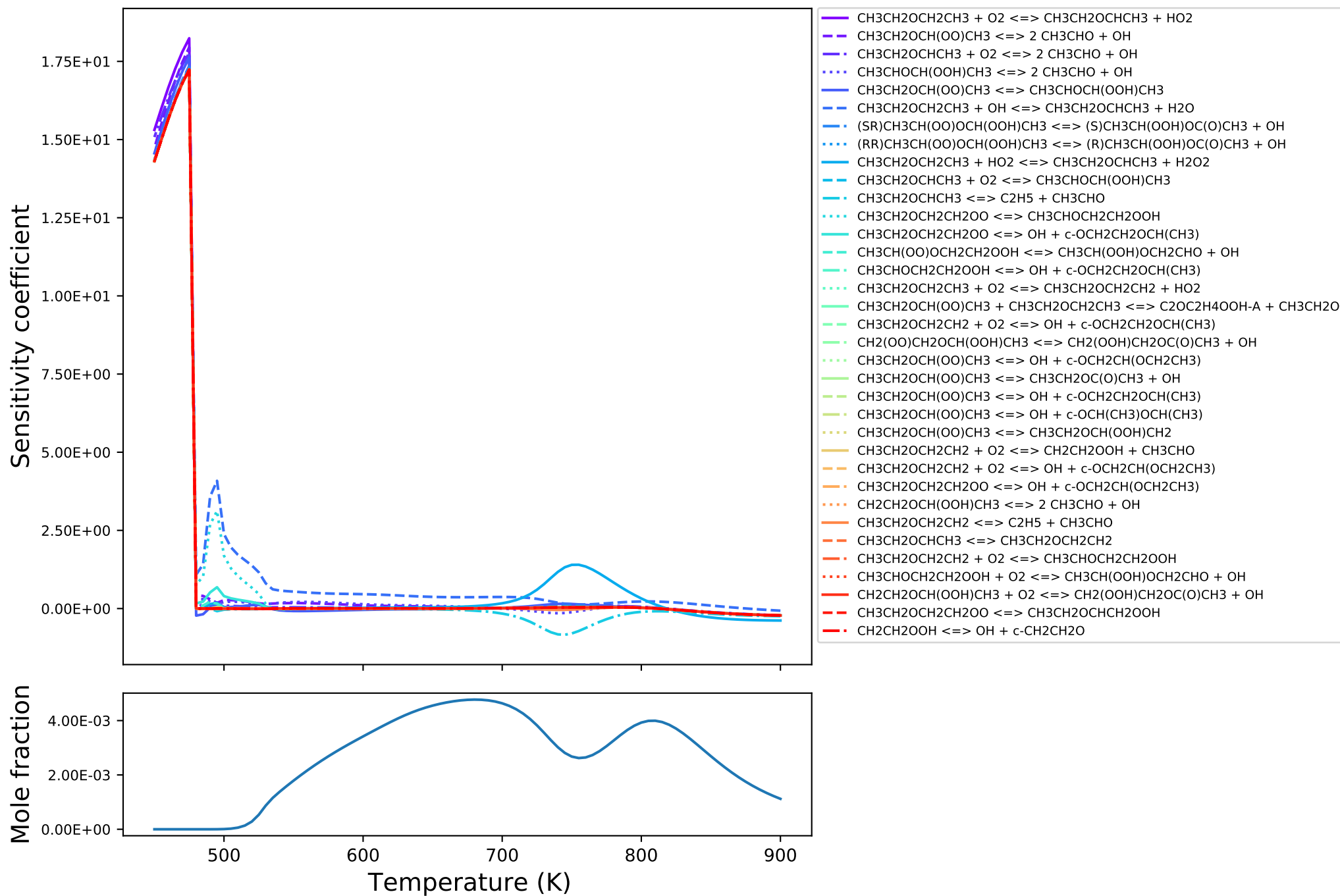
# CH<sub>3</sub>CH<sub>2</sub>OH



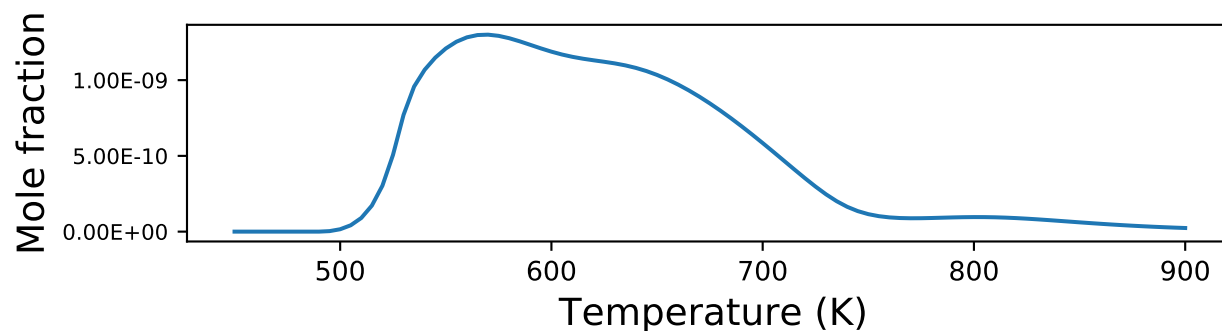
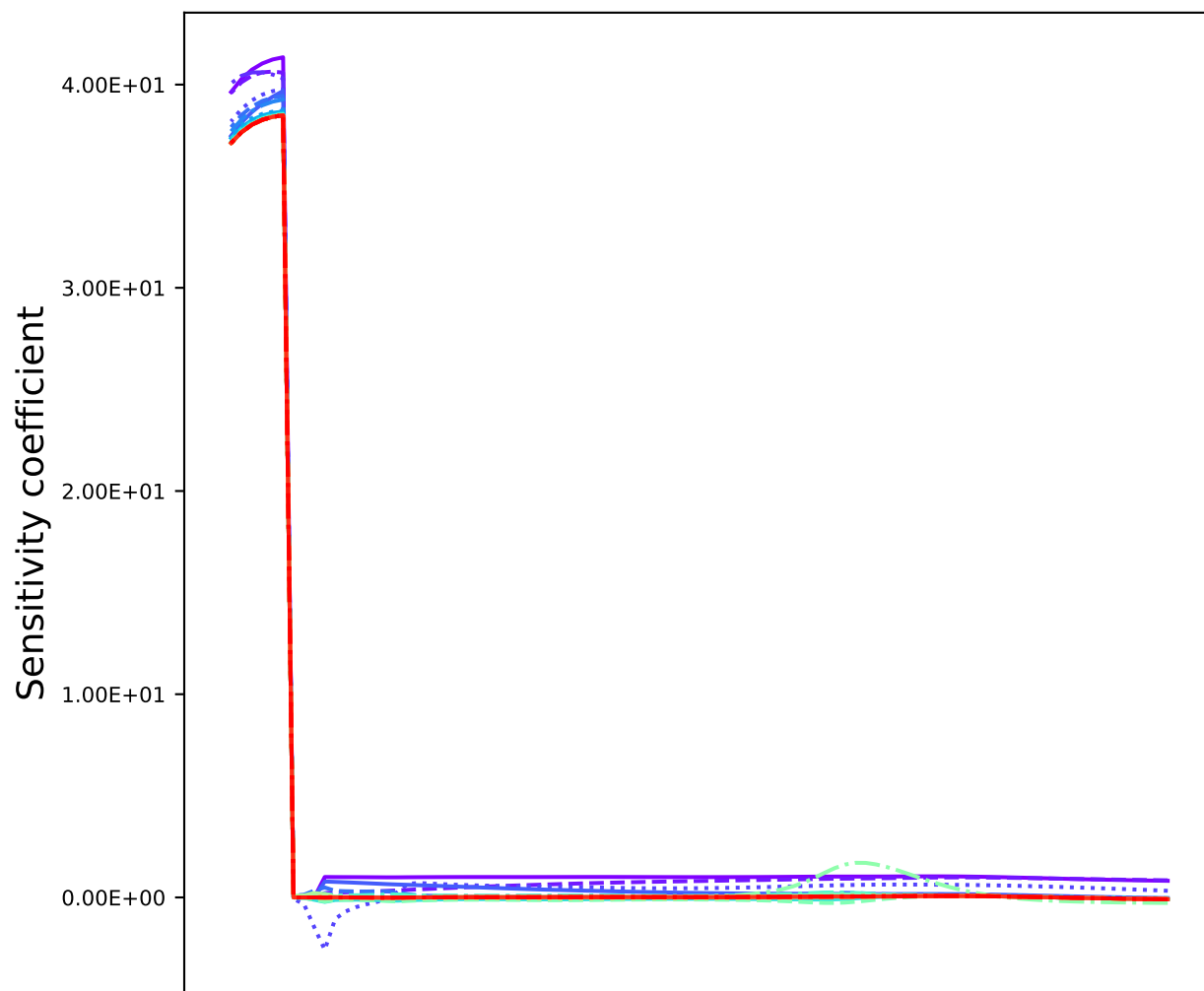
# CH<sub>3</sub>CH<sub>2</sub>OCHCH<sub>2</sub>



# CH3CHO

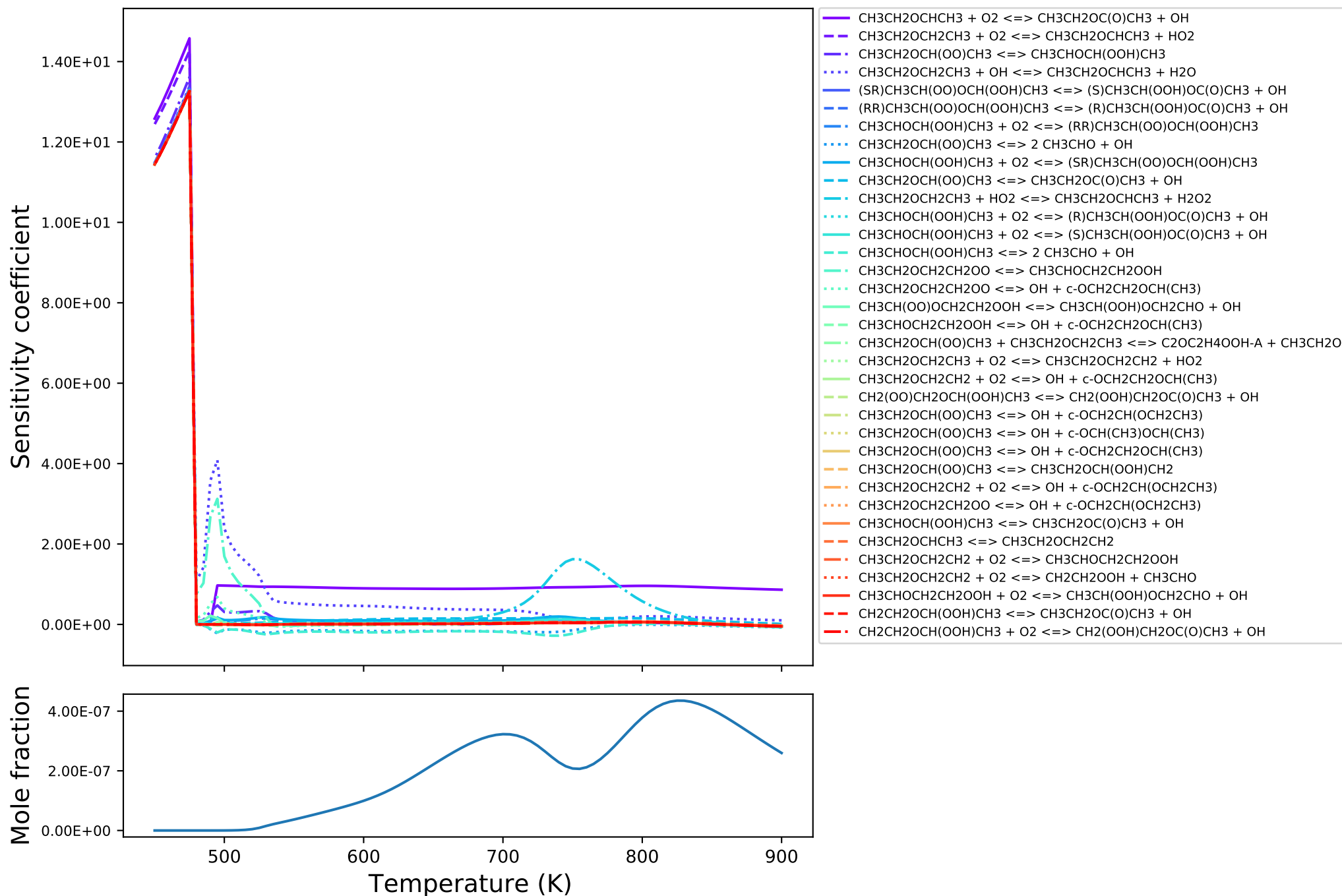


# CH<sub>3</sub>CH<sub>2</sub>OCHO



- CH<sub>3</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>O<sub>2</sub> ⇌ CH<sub>3</sub>CH<sub>2</sub>OCHCH<sub>2</sub>O<sub>2</sub>H
- - CH<sub>3</sub>CH<sub>2</sub>OCHCH<sub>2</sub>O<sub>2</sub>H + O<sub>2</sub> ⇌ CH<sub>3</sub>CH<sub>2</sub>OCH(OOH)CHO + OH
- · · CH<sub>3</sub>CH<sub>2</sub>OCH(OOH)CHO ⇌ CH<sub>3</sub>CH<sub>2</sub>OCHO + HCO + OH
- · · CH<sub>3</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>3</sub> + OH ⇌ CH<sub>3</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub> + H<sub>2</sub>O
- CH<sub>3</sub>CH<sub>2</sub>OCH(OO)CH<sub>2</sub>O<sub>2</sub>H ⇌ CH<sub>3</sub>CH<sub>2</sub>OCH(OOH)CHO + OH
- - CH<sub>3</sub>CH<sub>2</sub>OCH(OO)CH<sub>3</sub> ⇌ CH<sub>3</sub>CHOCH(OOH)CH<sub>3</sub>
- · · CH<sub>3</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>3</sub> + O<sub>2</sub> ⇌ CH<sub>3</sub>CH<sub>2</sub>OCHCH<sub>3</sub> + HO<sub>2</sub>
- · · CH<sub>3</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>3</sub> + O<sub>2</sub> ⇌ CH<sub>3</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub> + HO<sub>2</sub>
- (SR)CH<sub>3</sub>CH(OO)OCH(OOH)CH<sub>3</sub> ⇌ (S)CH<sub>3</sub>CH(OOH)OC(O)CH<sub>3</sub> + OH
- - (RR)CH<sub>3</sub>CH(OO)OCH(OOH)CH<sub>3</sub> ⇌ (R)CH<sub>3</sub>CH(OOH)OC(O)CH<sub>3</sub> + OH
- · · CH<sub>3</sub>CHOCH(OOH)CH<sub>3</sub> + O<sub>2</sub> ⇌ (RR)CH<sub>3</sub>CH(OO)OCH(OOH)CH<sub>3</sub>
- · · CH<sub>3</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub> + O<sub>2</sub> ⇌ CH<sub>3</sub>CH<sub>2</sub>OCHCH<sub>2</sub>O<sub>2</sub>H
- CH<sub>3</sub>CH<sub>2</sub>OCH(OO)CH<sub>3</sub> ⇌ 2 CH<sub>3</sub>CHO + OH
- - CH<sub>3</sub>CH<sub>2</sub>OCHCH<sub>3</sub> + O<sub>2</sub> ⇌ 2 CH<sub>3</sub>CHO + OH
- · · CH<sub>3</sub>CHOCH(OOH)CH<sub>3</sub> + O<sub>2</sub> ⇌ (SR)CH<sub>3</sub>CH(OO)OCH(OOH)CH<sub>3</sub>
- · · CH<sub>3</sub>CHOCH(OOH)CH<sub>3</sub> + O<sub>2</sub> ⇌ (R)CH<sub>3</sub>CH(OOH)OC(O)CH<sub>3</sub> + OH
- CH<sub>3</sub>CHOCH(OOH)CH<sub>3</sub> + O<sub>2</sub> ⇌ (S)CH<sub>3</sub>CH(OOH)OC(O)CH<sub>3</sub> + OH
- - CH<sub>3</sub>CHOCH(OOH)CH<sub>3</sub> ⇌ 2 CH<sub>3</sub>CHO + OH
- · · CH<sub>3</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>3</sub> + HO<sub>2</sub> ⇌ CH<sub>3</sub>CH<sub>2</sub>OCHCH<sub>3</sub> + H<sub>2</sub>O<sub>2</sub>
- · · CH<sub>3</sub>CH<sub>2</sub>OCHCH<sub>3</sub> + O<sub>2</sub> ⇌ CH<sub>3</sub>CHOCH(OOH)CH<sub>3</sub>
- CH<sub>3</sub>CH(OO)OCH<sub>2</sub>CH<sub>2</sub>O<sub>2</sub>H ⇌ CH<sub>3</sub>CH(OOH)OCH<sub>2</sub>CHO + OH
- - CH<sub>3</sub>CH<sub>2</sub>OCH(OO)CH<sub>3</sub> ⇌ OH + c-OCH<sub>2</sub>CH(OCH<sub>2</sub>CH<sub>3</sub>)
- · · CH<sub>3</sub>CH<sub>2</sub>OCH(OO)CH<sub>3</sub> ⇌ CH<sub>3</sub>CH<sub>2</sub>OC(O)CH<sub>3</sub> + OH
- · · CH<sub>3</sub>CHOCH<sub>2</sub>CH<sub>2</sub>O<sub>2</sub>H ⇌ OH + c-OCH<sub>2</sub>CH<sub>2</sub>OCH(CH<sub>3</sub>)
- CH<sub>3</sub>CH<sub>2</sub>OCH(OO)CH<sub>3</sub> ⇌ OH + c-OCH(CH<sub>3</sub>)OCH(CH<sub>3</sub>)
- - CH<sub>3</sub>CH<sub>2</sub>OCH(OO)CH<sub>3</sub> ⇌ OH + c-OCH<sub>2</sub>CH<sub>2</sub>OCH(CH<sub>3</sub>)
- · · CH<sub>2</sub>(OO)CH<sub>2</sub>OCH(OOH)CH<sub>3</sub> ⇌ CH<sub>2</sub>(OOH)CH<sub>2</sub>OC(O)CH<sub>3</sub> + OH
- · · CH<sub>3</sub>CH<sub>2</sub>OCH(OO)CH<sub>3</sub> + CH<sub>3</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>3</sub> ⇌ C<sub>2</sub>OC<sub>2</sub>H<sub>4</sub>O<sub>2</sub>H-A + CH<sub>3</sub>CH<sub>2</sub>O
- CH<sub>3</sub>CH<sub>2</sub>OCH(OO)CH<sub>3</sub> ⇌ CH<sub>3</sub>CH<sub>2</sub>OCH(OOH)CH<sub>2</sub>
- - CH<sub>3</sub>CH<sub>2</sub>OCH(OO)CH<sub>3</sub> ⇌ CH<sub>3</sub>CH<sub>2</sub>OCHCH<sub>2</sub> + HO<sub>2</sub>
- · · CH<sub>3</sub>CH<sub>2</sub>OCHCH<sub>3</sub> + O<sub>2</sub> ⇌ OH + c-OCH(CH<sub>3</sub>)OCH(CH<sub>3</sub>)
- · · CH<sub>3</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>3</sub> + HO<sub>2</sub> ⇌ CH<sub>3</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub> + H<sub>2</sub>O<sub>2</sub>
- CH<sub>3</sub>CH<sub>2</sub>OCHCH<sub>3</sub> + O<sub>2</sub> ⇌ OH + c-OCH<sub>2</sub>CH(OCH<sub>2</sub>CH<sub>3</sub>)
- - CH<sub>3</sub>CH<sub>2</sub>OCHCH<sub>3</sub> + O<sub>2</sub> ⇌ OH + c-OCH<sub>2</sub>CH<sub>2</sub>OCH(CH<sub>3</sub>)
- · · CH<sub>3</sub>CH<sub>2</sub>OCHCH<sub>3</sub> + O<sub>2</sub> ⇌ CH<sub>3</sub>CH<sub>2</sub>OC(O)CH<sub>3</sub> + OH

# CH<sub>3</sub>CH<sub>2</sub>OC(O)CH<sub>3</sub>



# c-OCH<sub>2</sub>CH<sub>2</sub>OCH(CH<sub>3</sub>)

