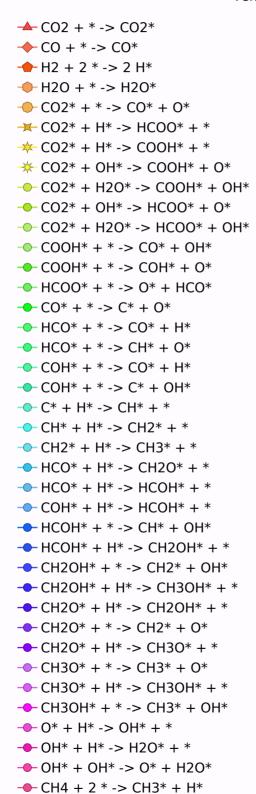


Temperature [K]



--- CH3OH + * -> CH3OH*

CH2O + * -> CH2O*

```
-CO2 + * <- CO2*
→ H2 + 2 * <- 2 H*</p>
+ * <- H2O*</p>

→ CO2* + * <- CO* + O*</p>
★ CO2* + H* <- HCOO* + *</p>

★ CO2* + H* <- COOH* + *
</p>
--- CO2* + OH* <- COOH* + O*
--- CO2* + H2O* <- COOH* + OH*
--- CO2* + OH* <- HCOO* + O*
--- CO2* + H2O* <- HCOO* + OH*
--- COOH* + * <- CO* + OH*
--- COOH* + * <- COH* + O*
--- HCOO* + * <- O* + HCO*
--- CO* + * <- C* + O*
--- HCO* + * <- CO* + H*
--- HCO* + * <- CH* + O*
--- COH* + * <- CO* + H*
COH* + * <- C* + OH*</p>
--- C* + H* <- CH* + *
--- CH* + H* <- CH2* + *
--- CH2* + H* <- CH3* + *
--- HCO* + H* <- CH2O* + *
--- HCO* + H* <- HCOH* + *
--- COH* + H* <- HCOH* + *
→ HCOH* + * <- CH* + OH*</p>
--- HCOH* + H* <- CH2OH* + *
--- CH2OH* + * <- CH2* + OH*
--- CH2OH* + H* <- CH3OH* + *
--- CH2O* + H* <- CH2OH* + *
--- CH2O* + * <- CH2* + O*
--- CH2O* + H* <- CH3O* + *
--- CH3O* + * <- CH3* + O*
--- CH3O* + H* <- CH3OH* + *
--- CH3OH* + * <- CH3* + OH*
--- O* + H* <- OH* + *
--- OH* + H* <- H2O* + *
--- OH* + OH* <- O* + H2O*
--- CH4 + 2 * <- CH3* + H*
--- CH3OH + * <- CH3OH*
```

CH2O + * <- CH2O*</p>