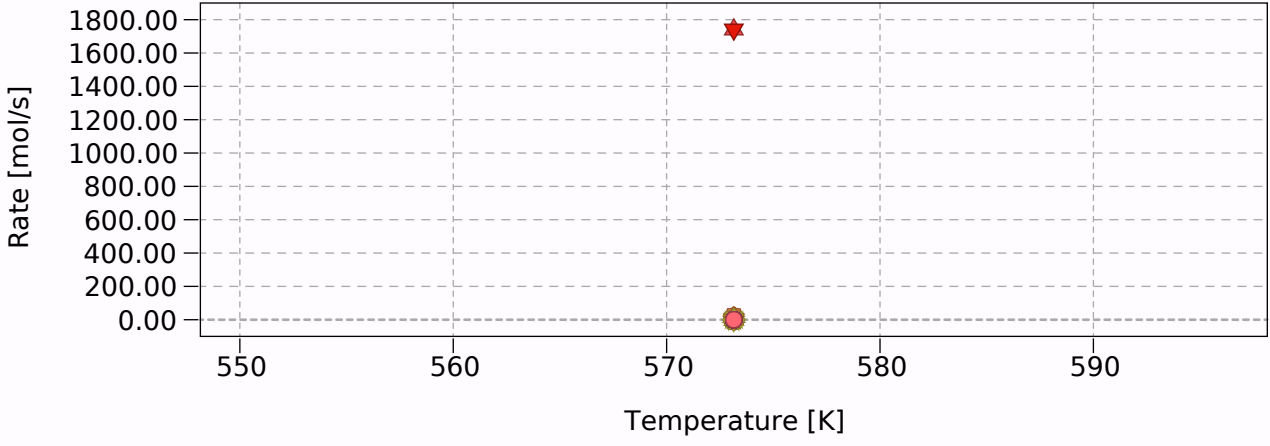


SEQUENCERUN_2024-07-05_1415/graphs/pdf/rates.pdf



- | | |
|--|---|
| ▲ $\text{CO}_2 + * \rightarrow \text{CO}_2^*$ | ▼ $\text{CO}_2 + * \leftarrow \text{CO}_2^*$ |
| ◆ $\text{CO} + * \rightarrow \text{CO}^*$ | ▣ $\text{CO} + * \leftarrow \text{CO}^*$ |
| ⬠ $\text{H}_2 + 2 * \rightarrow 2 \text{H}^*$ | ⬡ $\text{H}_2 + 2 * \leftarrow 2 \text{H}^*$ |
| ⬢ $\text{CO}_2^* + * \rightarrow \text{CO}^* + \text{O}^*$ | ⬣ $\text{CO}_2^* + * \leftarrow \text{CO}^* + \text{O}^*$ |
| ⬤ $\text{CO}_2^* + \text{H}^* \rightarrow \text{HCOO}^* + *$ | ✦ $\text{CO}_2^* + \text{H}^* \leftarrow \text{HCOO}^* + *$ |
| ★ $\text{CO}_2^* + \text{H}^* \rightarrow \text{COOH}^* + *$ | ☆ $\text{CO}_2^* + \text{H}^* \leftarrow \text{COOH}^* + *$ |
| ✧ $\text{CO}_2^* + \text{OH}^* \rightarrow \text{COOH}^* + \text{O}^*$ | ✨ $\text{CO}_2^* + \text{OH}^* \leftarrow \text{COOH}^* + \text{O}^*$ |
| ✪ $\text{CO}_2^* + \text{H}_2\text{O}^* \rightarrow \text{COOH}^* + \text{OH}^*$ | ◐ $\text{CO}_2^* + \text{H}_2\text{O}^* \leftarrow \text{COOH}^* + \text{OH}^*$ |
| ◑ $\text{CO}_2^* + \text{OH}^* \rightarrow \text{HCOO}^* + \text{O}^*$ | ◒ $\text{CO}_2^* + \text{OH}^* \leftarrow \text{HCOO}^* + \text{O}^*$ |
| ◓ $\text{CO}_2^* + \text{H}_2\text{O}^* \rightarrow \text{HCOO}^* + \text{OH}^*$ | ◔ $\text{CO}_2^* + \text{H}_2\text{O}^* \leftarrow \text{HCOO}^* + \text{OH}^*$ |
| ◕ $\text{COOH}^* + * \rightarrow \text{CO}^* + \text{OH}^*$ | ◖ $\text{COOH}^* + * \leftarrow \text{CO}^* + \text{OH}^*$ |
| ◗ $\text{COOH}^* + * \rightarrow \text{COH}^* + \text{O}^*$ | ◘ $\text{COOH}^* + * \leftarrow \text{COH}^* + \text{O}^*$ |
| ◙ $\text{HCOO}^* + * \rightarrow \text{O}^* + \text{HCO}^*$ | ◚ $\text{HCOO}^* + * \leftarrow \text{O}^* + \text{HCO}^*$ |
| ◛ $\text{CO}^* + * \rightarrow \text{C}^* + \text{O}^*$ | ◜ $\text{CO}^* + * \leftarrow \text{C}^* + \text{O}^*$ |
| ◝ $\text{HCO}^* + * \rightarrow \text{CO}^* + \text{H}^*$ | ◞ $\text{HCO}^* + * \leftarrow \text{CO}^* + \text{H}^*$ |
| ◟ $\text{HCO}^* + * \rightarrow \text{CH}^* + \text{O}^*$ | ◠ $\text{HCO}^* + * \leftarrow \text{CH}^* + \text{O}^*$ |
| ◡ $\text{COH}^* + * \rightarrow \text{CO}^* + \text{H}^*$ | ◢ $\text{COH}^* + * \leftarrow \text{CO}^* + \text{H}^*$ |
| ◣ $\text{COH}^* + * \rightarrow \text{C}^* + \text{OH}^*$ | ◤ $\text{COH}^* + * \leftarrow \text{C}^* + \text{OH}^*$ |
| ◥ $\text{C}^* + \text{H}^* \rightarrow \text{CH}^* + *$ | ◦ $\text{C}^* + \text{H}^* \leftarrow \text{CH}^* + *$ |
| ◧ $\text{CH}^* + \text{H}^* \rightarrow \text{CH}_2^* + *$ | ◨ $\text{CH}^* + \text{H}^* \leftarrow \text{CH}_2^* + *$ |
| ◩ $\text{CH}_2^* + \text{H}^* \rightarrow \text{CH}_3^* + *$ | ◪ $\text{CH}_2^* + \text{H}^* \leftarrow \text{CH}_3^* + *$ |
| ◪ $\text{HCO}^* + \text{H}^* \rightarrow \text{CH}_2\text{O}^* + *$ | ◥ $\text{HCO}^* + \text{H}^* \leftarrow \text{CH}_2\text{O}^* + *$ |
| ◦ $\text{HCO}^* + \text{H}^* \rightarrow \text{HCOH}^* + *$ | ◧ $\text{HCO}^* + \text{H}^* \leftarrow \text{HCOH}^* + *$ |
| ◨ $\text{COH}^* + \text{H}^* \rightarrow \text{HCOH}^* + *$ | ◩ $\text{COH}^* + \text{H}^* \leftarrow \text{HCOH}^* + *$ |
| ◪ $\text{HCOH}^* + * \rightarrow \text{CH}^* + \text{OH}^*$ | ◥ $\text{HCOH}^* + * \leftarrow \text{CH}^* + \text{OH}^*$ |
| ◦ $\text{HCOH}^* + \text{H}^* \rightarrow \text{CH}_2\text{OH}^* + *$ | ◨ $\text{HCOH}^* + \text{H}^* \leftarrow \text{CH}_2\text{OH}^* + *$ |
| ◨ $\text{CH}_2\text{OH}^* + * \rightarrow \text{CH}_2^* + \text{OH}^*$ | ◩ $\text{CH}_2\text{OH}^* + * \leftarrow \text{CH}_2^* + \text{OH}^*$ |
| ◩ $\text{CH}_2\text{OH}^* + \text{H}^* \rightarrow \text{CH}_3\text{OH}^* + *$ | ◪ $\text{CH}_2\text{OH}^* + \text{H}^* \leftarrow \text{CH}_3\text{OH}^* + *$ |
| ◪ $\text{CH}_2\text{O}^* + \text{H}^* \rightarrow \text{CH}_2\text{OH}^* + *$ | ◥ $\text{CH}_2\text{O}^* + \text{H}^* \leftarrow \text{CH}_2\text{OH}^* + *$ |
| ◥ $\text{CH}_2\text{O}^* + * \rightarrow \text{CH}_2^* + \text{O}^*$ | ◧ $\text{CH}_2\text{O}^* + * \leftarrow \text{CH}_2^* + \text{O}^*$ |
| ◧ $\text{CH}_2\text{O}^* + \text{H}^* \rightarrow \text{CH}_3\text{O}^* + *$ | ◨ $\text{CH}_2\text{O}^* + \text{H}^* \leftarrow \text{CH}_3\text{O}^* + *$ |
| ◨ $\text{CH}_3\text{O}^* + * \rightarrow \text{CH}_3^* + \text{O}^*$ | ◩ $\text{CH}_3\text{O}^* + * \leftarrow \text{CH}_3^* + \text{O}^*$ |
| ◩ $\text{CH}_3\text{O}^* + \text{H}^* \rightarrow \text{CH}_3\text{OH}^* + *$ | ◪ $\text{CH}_3\text{O}^* + \text{H}^* \leftarrow \text{CH}_3\text{OH}^* + *$ |
| ◪ $\text{CH}_3\text{OH}^* + * \rightarrow \text{CH}_3^* + \text{OH}^*$ | ◥ $\text{CH}_3\text{OH}^* + * \leftarrow \text{CH}_3^* + \text{OH}^*$ |
| ◥ $\text{O}^* + \text{H}^* \rightarrow \text{OH}^* + *$ | ◧ $\text{O}^* + \text{H}^* \leftarrow \text{OH}^* + *$ |
| ◧ $\text{OH}^* + \text{H}^* \rightarrow \text{H}_2\text{O}^* + *$ | ◨ $\text{OH}^* + \text{H}^* \leftarrow \text{H}_2\text{O}^* + *$ |
| ◨ $\text{OH}^* + \text{OH}^* \rightarrow \text{O}^* + \text{H}_2\text{O}^*$ | ◩ $\text{OH}^* + \text{OH}^* \leftarrow \text{O}^* + \text{H}_2\text{O}^*$ |
| ◩ $\text{H}_2\text{O} + * \rightarrow \text{H}_2\text{O}^*$ | ◪ $\text{H}_2\text{O} + * \leftarrow \text{H}_2\text{O}^*$ |
| ◪ $\text{CH}_4 + 2 * \rightarrow \text{CH}_3^* + \text{H}^*$ | ◥ $\text{CH}_4 + 2 * \leftarrow \text{CH}_3^* + \text{H}^*$ |
| ◥ $\text{CH}_3\text{OH} + * \rightarrow \text{CH}_3\text{OH}^*$ | ◧ $\text{CH}_3\text{OH} + * \leftarrow \text{CH}_3\text{OH}^*$ |
| ◧ $\text{CH}_2\text{O} + * \rightarrow \text{CH}_2\text{O}^*$ | ◨ $\text{CH}_2\text{O} + * \leftarrow \text{CH}_2\text{O}^*$ |