N10 – Mechanisms

1. **2 NO(*g*)** ⇔ **N2O2(*g*) Fast**
2. **H2*(g*) + N2O2(*g*)** → **H2O(*g*) + N2O(*g*) Slow Rate = *k2*[H2][N2O2]**
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**NO2(*g*) + CO(*g*) → NO(*g*) + CO2(*g*) Rateobs = *k*[NO2]2**

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Step #1 **H2(g) + 2NO(g) 🡪 N2O(g) + H2O(g)**

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The experimental rate law is:

**R = k[NO]2 [H2]**

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