

FLIP MOVIE

By Russell
Brausch &
Eva
D'Epagnier

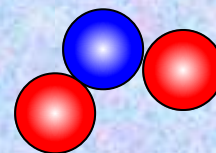
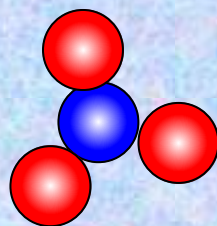


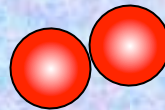
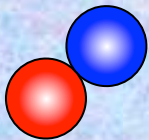
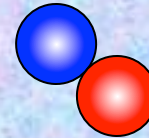
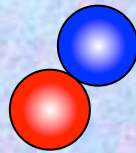
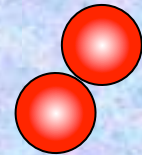
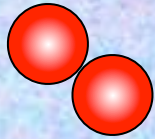
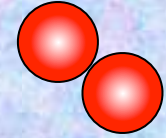
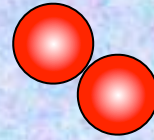
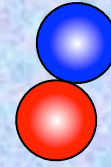
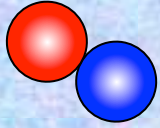
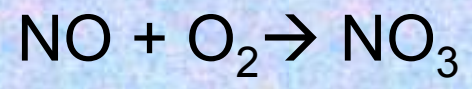
Project 6.

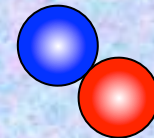
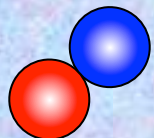
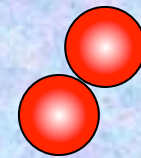
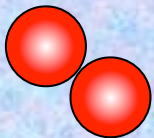
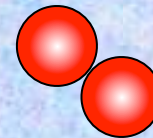
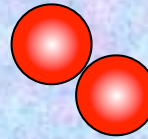
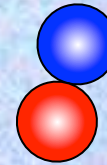
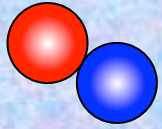
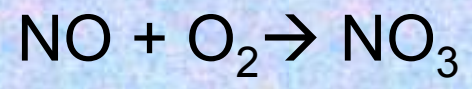
Step 1. $\text{NO} + \text{O}_2 \rightarrow \text{NO}_3$ (fast)

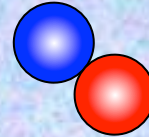
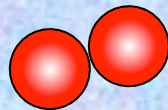
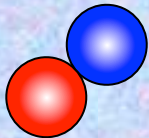
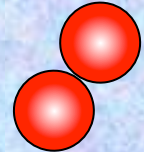
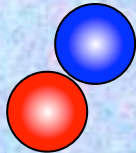
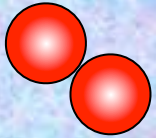
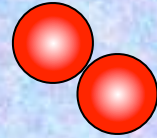
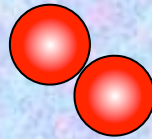
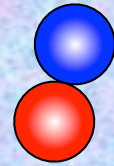
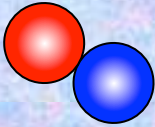
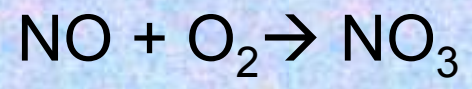
Step 2. $\text{NO}_3 + \text{NO} \rightarrow 2 \text{NO}_2$ (slow)

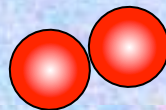
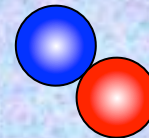
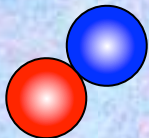
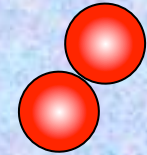
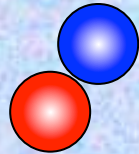
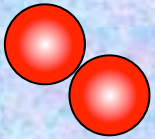
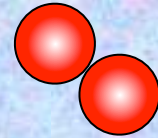
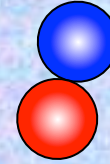
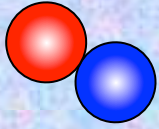
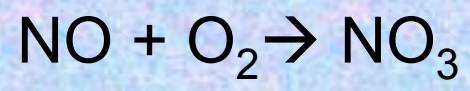
Overall: $2 \text{NO} + \text{O}_2 \rightarrow 2 \text{NO}_2$ $\Delta H = -116 \text{ kJ}$

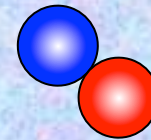
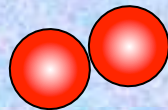
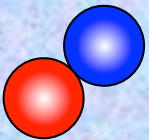
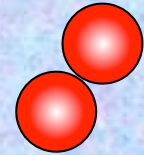
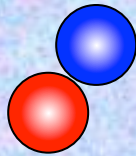
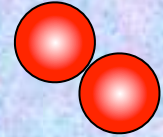
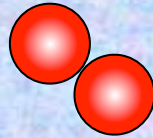
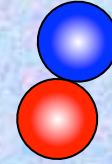
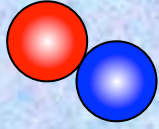
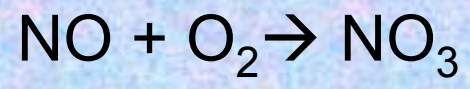


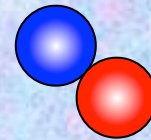
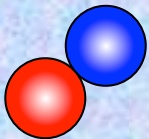
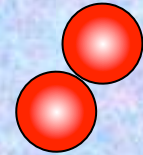
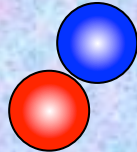
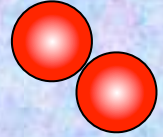
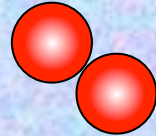
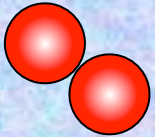
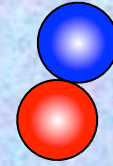
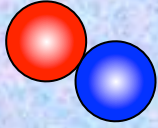
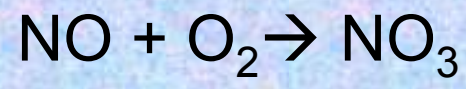


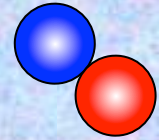
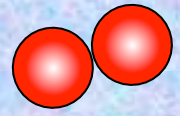
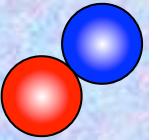
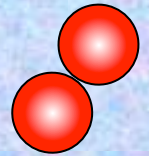
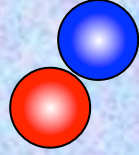
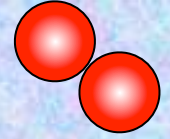
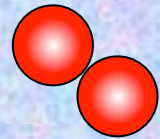
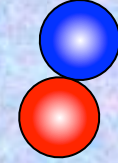
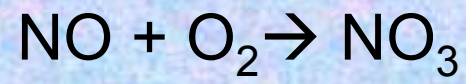


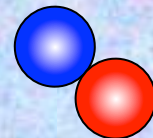
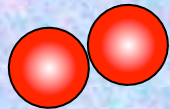
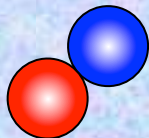
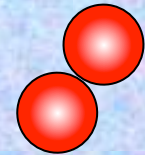
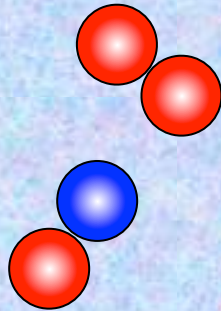
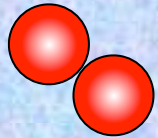
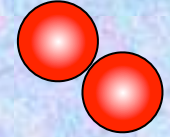
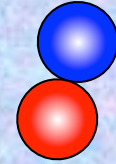
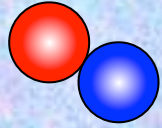
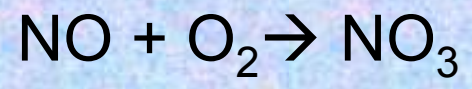


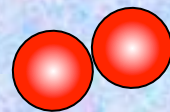
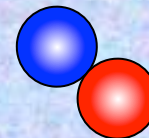
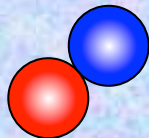
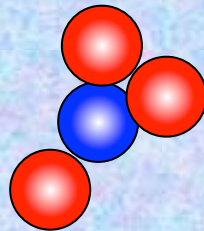
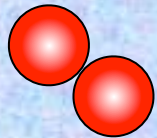
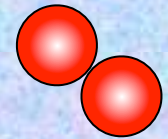
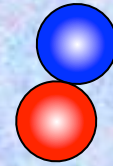
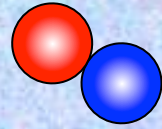
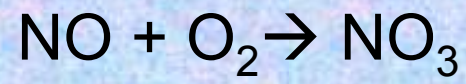


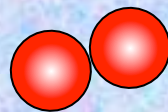
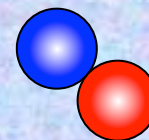
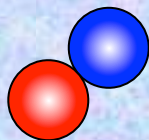
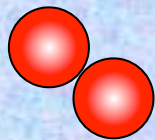
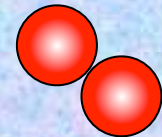
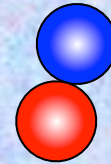
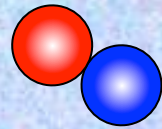
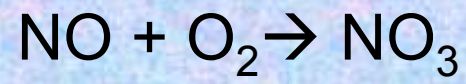


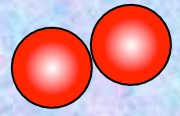
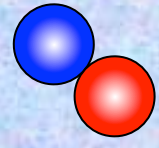
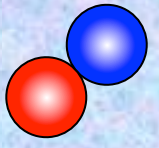
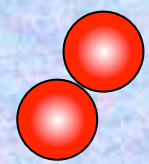
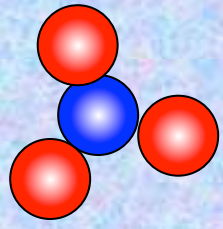
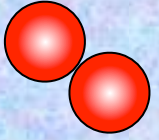
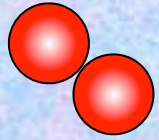
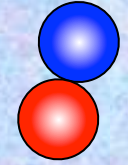
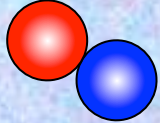
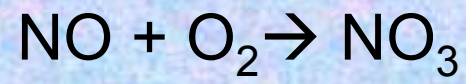


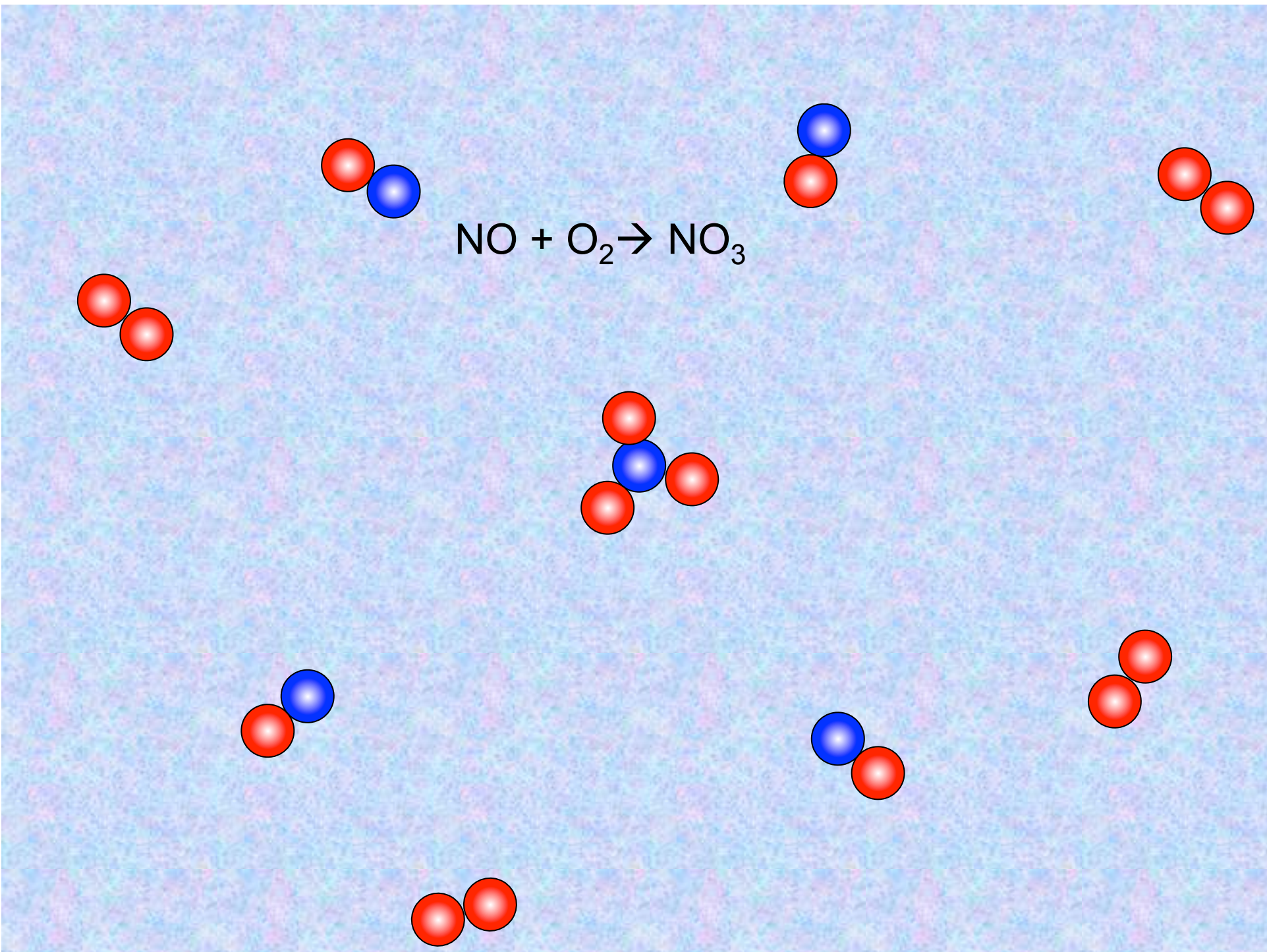
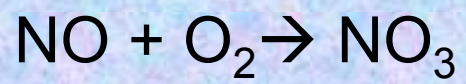


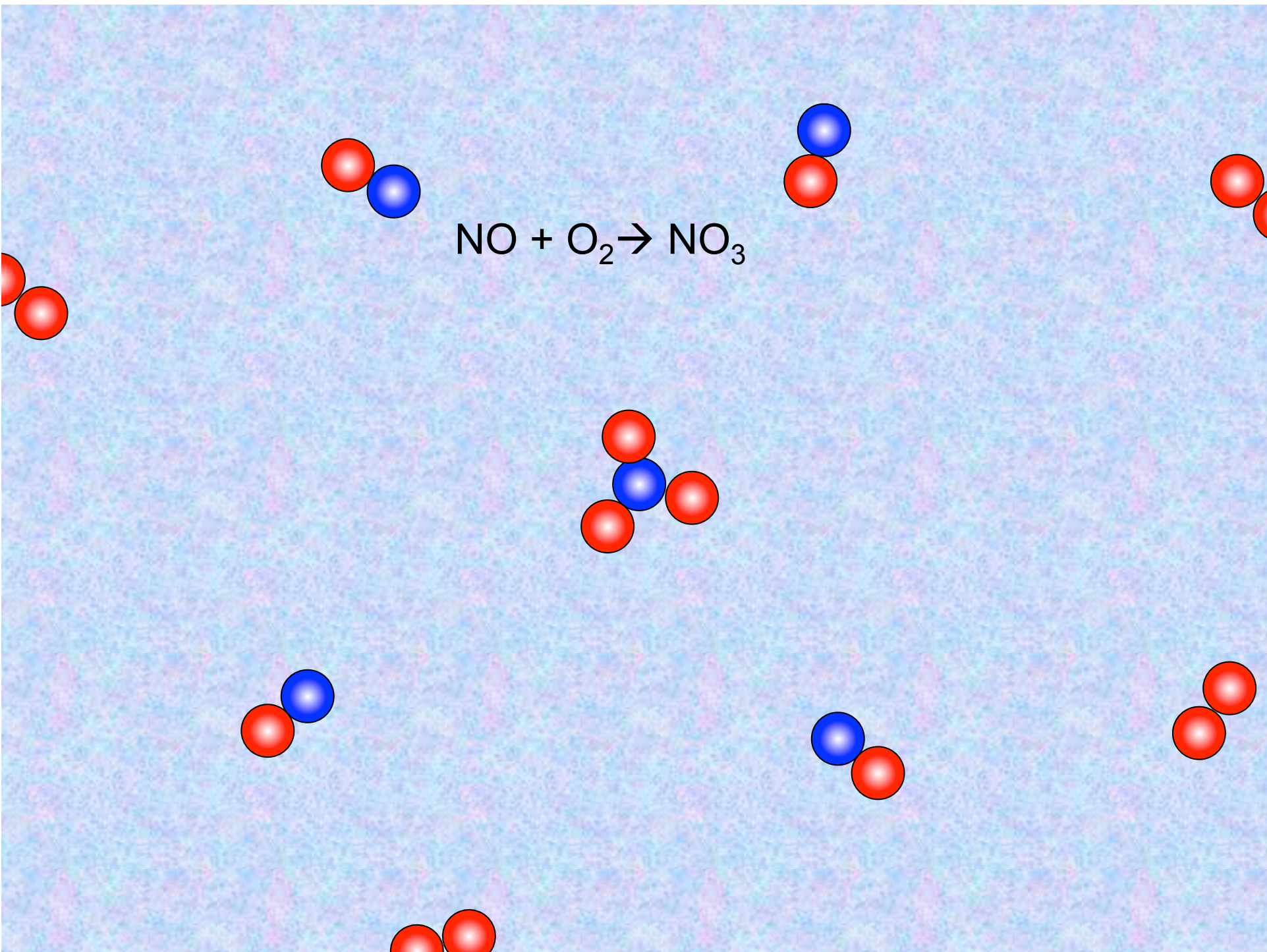
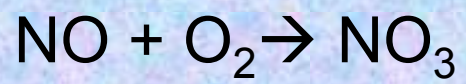


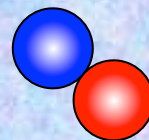
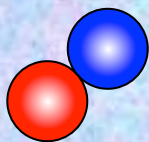
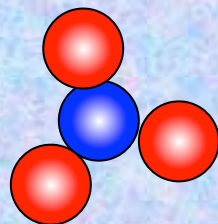
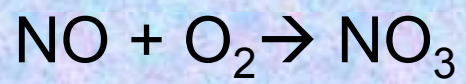


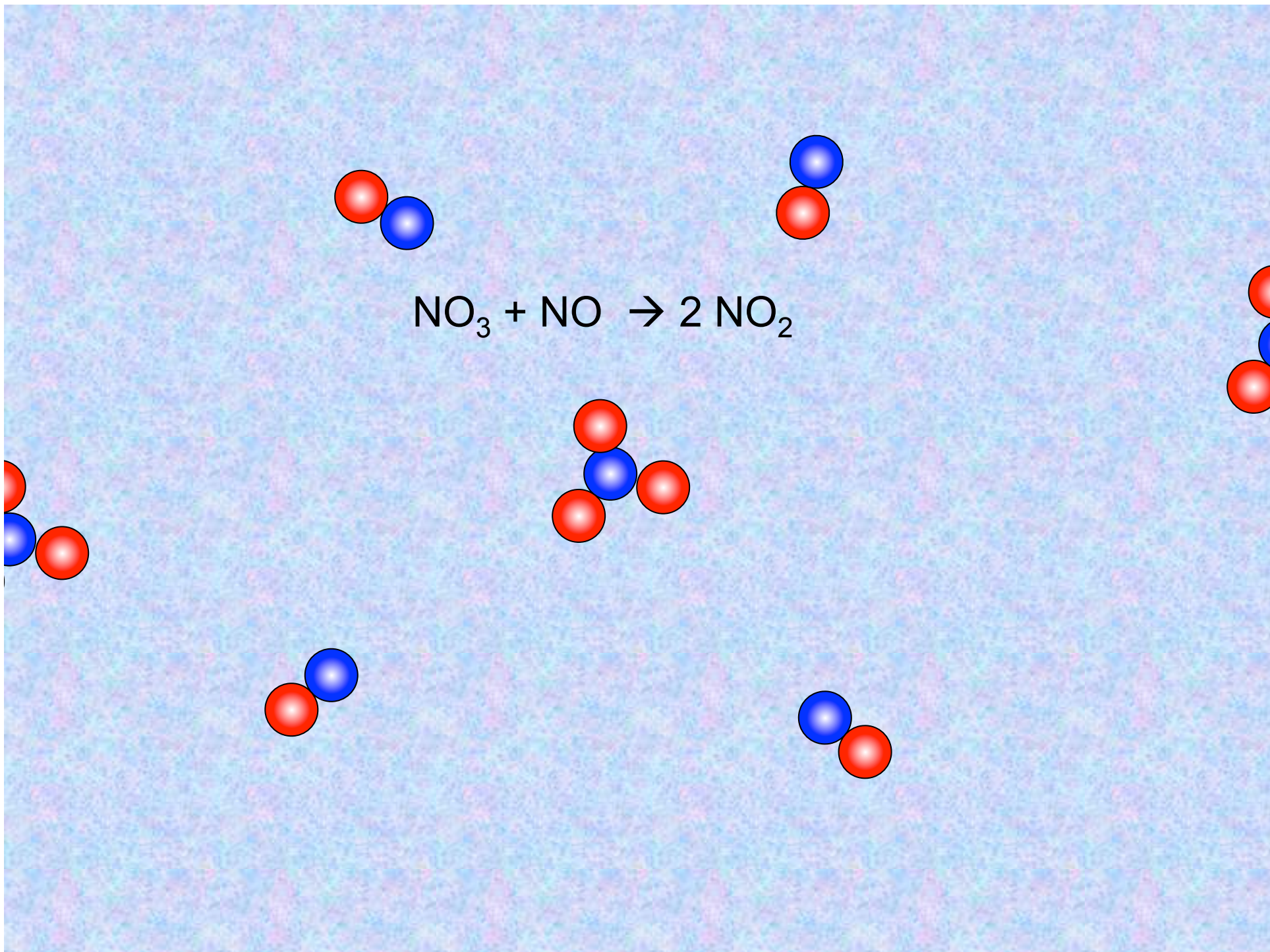


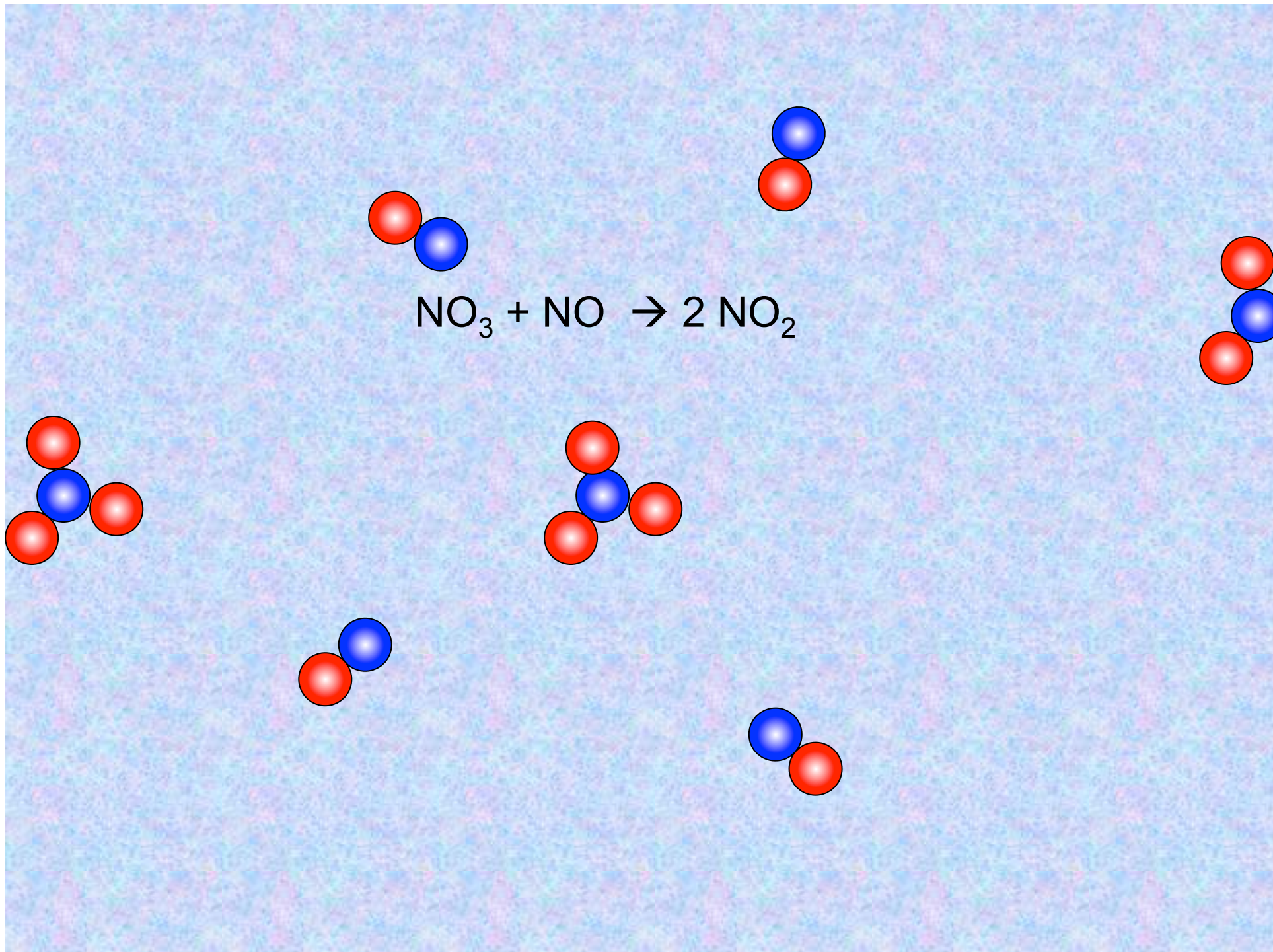


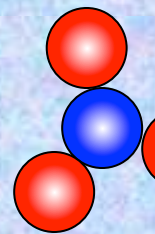
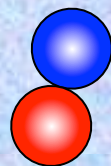
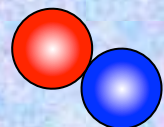
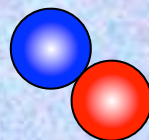
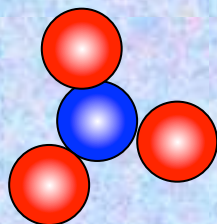
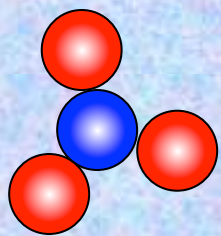


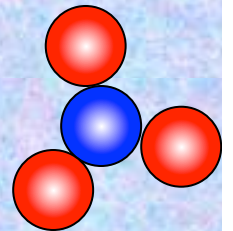
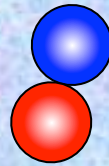
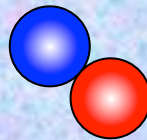
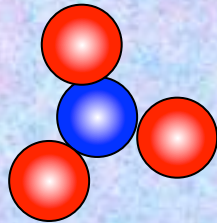
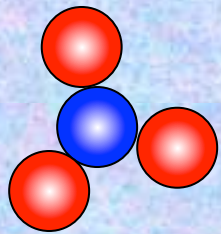


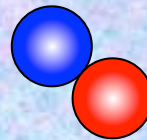
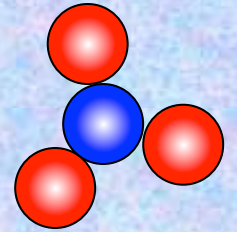
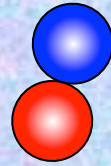
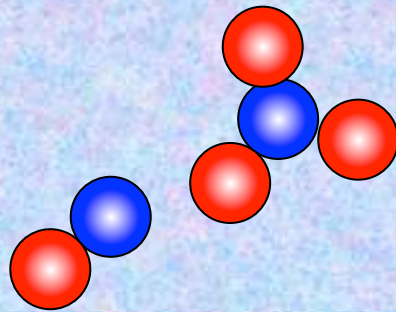
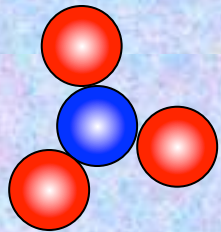
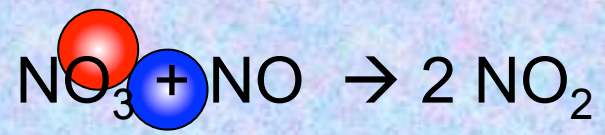


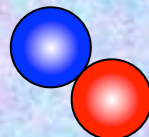
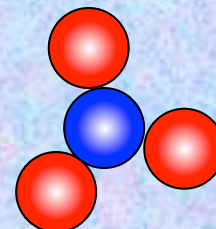
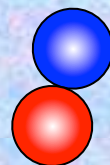
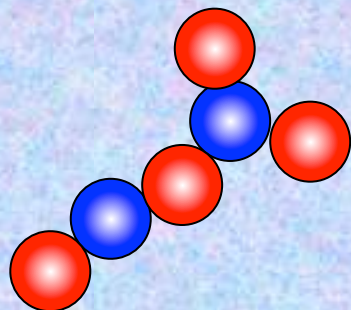
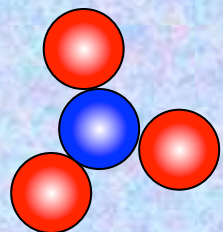
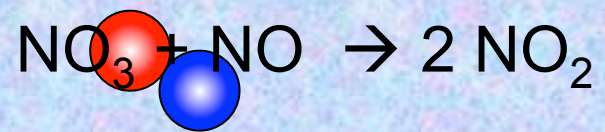


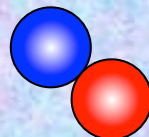
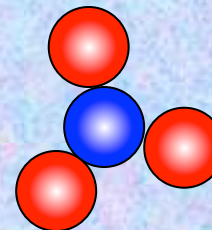
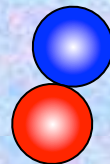
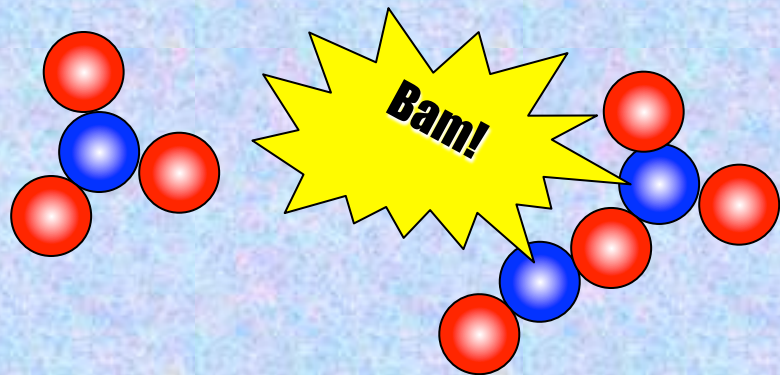
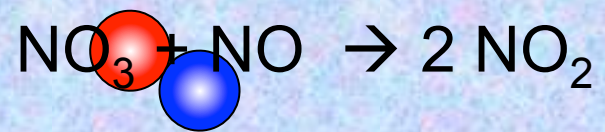


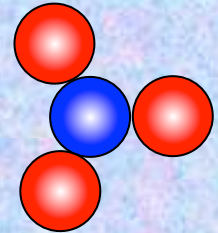
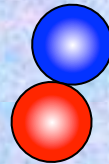
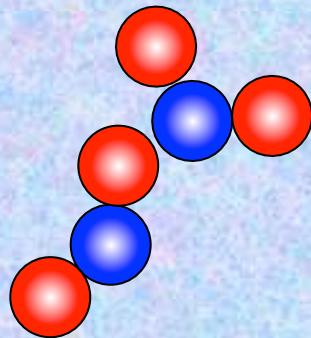
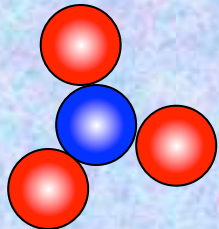
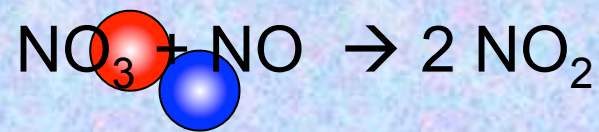


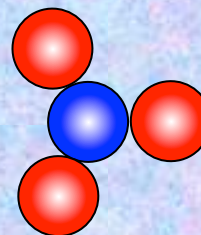
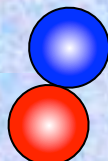
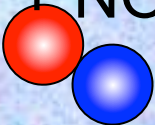
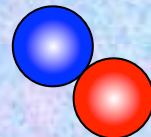
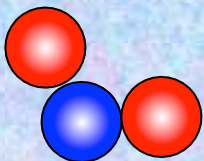
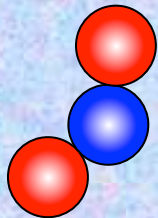
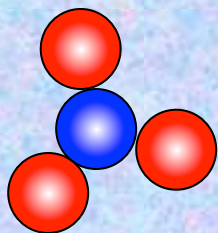


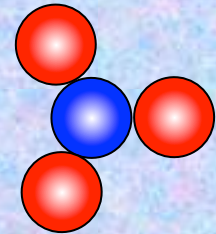
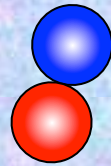
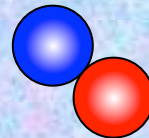
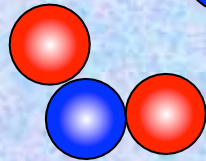
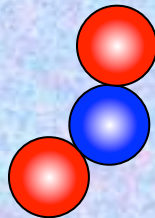
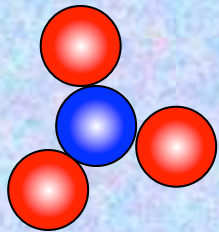


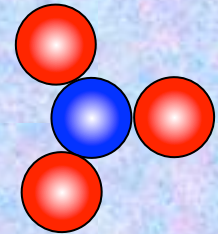
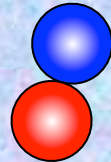
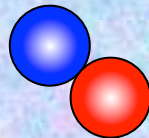
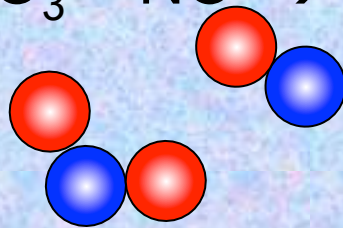
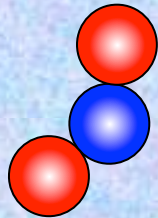
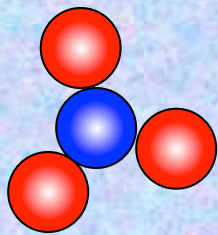


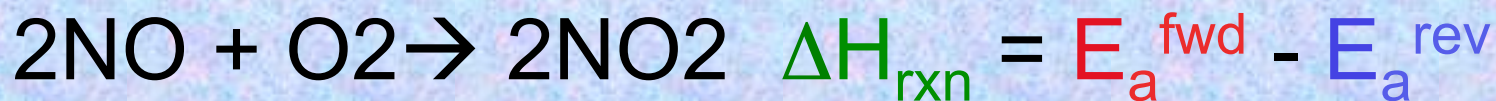
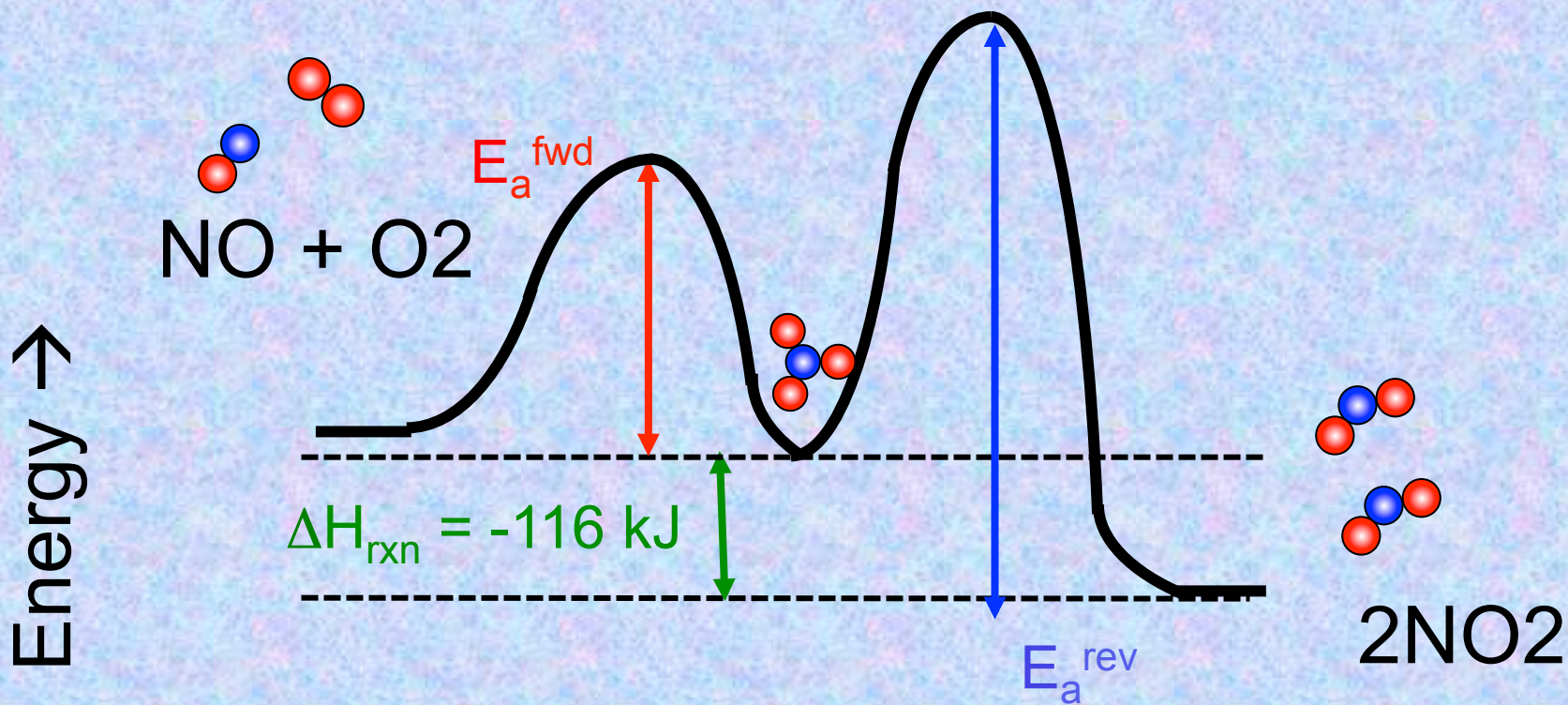












$$\text{Rate} = k[\text{NO}]^2[\text{O}_2]^1$$