

CHEMISTRY HOMEWORK SHEET

NAME _____

24	52
Cr	24 Cr^{+3}
51.996	24 protons 21 electrons 28 neutrons

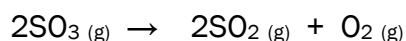


List four things that will increase the rate of a reaction. *Use complete sentences.*

Explain why solids and pure liquids are left out of equilibrium expressions.

Calculate K_{eq} for this reaction if the equilibrium concentrations are:

$[\text{SO}_2] = 0.21 \text{ M}$, $[\text{O}_2] = 0.42 \text{ M}$, $[\text{SO}_3] = 0.027 \text{ M}$



$K_{\text{eq}} =$ _____

Which are more favored, reactants, or products? _____

For the reaction $2\text{CO} (\text{g}) \rightarrow \text{C} (\text{s}) + \text{CO}_2 (\text{g})$, $K_{\text{eq}} = 7.7 \times 10^{-15}$. At a particular time, the following concentrations are measured: $[\text{CO}] = 0.043 \text{ M}$, $[\text{CO}_2] = 3.6 \times 10^{-7} \text{ M}$. In which direction will this reaction proceed? Show all work for credit.

For the reaction $\text{N}_2\text{O}_4 (\text{g}) \rightarrow 2\text{NO}_2 (\text{g})$ $K_{\text{eq}} = 0.7$. At a particular time, the following concentrations are measured: $[\text{N}_2\text{O}_4] = 2.5 \text{ M}$, $[\text{NO}_2] = 0.7 \text{ M}$. In which direction will this reaction proceed? Show all work for credit.
