

Equilibrium constants
www.vaxasoftware.com

Reaction	Constant	Temperature (°C)
$\text{EtOH} + \text{HAc} \rightleftharpoons \text{AcEt} + \text{H}_2\text{O}$	$K_c=4$	25
$2\text{NO}_{2(g)} \rightleftharpoons 2\text{NO}_{(g)} + \text{O}_{2(g)}$	$K_c=1.42 \cdot 10^{-4}$	327
	$K_p=6.98 \cdot 10^{-3}$	327
$\text{N}_2\text{O}_{4(g)} \rightleftharpoons 2\text{NO}_{2(g)}$	$K_c=0.142$	25
	$K_p=0.32$	35
$\text{H}_{2(g)} + \text{I}_{2(g)} \rightleftharpoons 2\text{HI}_{(g)}$	$K_c=56.6$	450
$2\text{HI}_{(g)} \rightleftharpoons \text{H}_{2(g)} + \text{I}_{2(g)}$	$K_c=0.019$	350
	$K_c=0.022$	490
$\text{PCl}_{5(g)} \rightleftharpoons \text{PCl}_{3(g)} + \text{Cl}_{2(g)}$	$K_c=0.050$	250
	$K_p=2.144$	250
$\text{N}_{2(g)} + \text{O}_{2(g)} \rightleftharpoons 2\text{NO}_{(g)}$	$K_c=0.0120$	2800
	$K_p=5.33 \cdot 10^{-31}$	25
$\text{C}_{(s)} + \text{CO}_{2(g)} \rightleftharpoons 2\text{CO}_{(g)}$	$K_p=122$	1000
$\text{CO}_{2(g)} + \text{H}_{2(g)} \rightleftharpoons \text{CO}_{(g)} + \text{H}_2\text{O}_{(g)}$	$K_p=1.59$	1000
$\text{C}_{(s)} + \text{H}_2\text{O}_{(g)} \rightleftharpoons \text{CO}_{(g)} + \text{H}_{2(g)}$	$K_p=76.4$	1000
$2\text{SO}_{2(g)} + \text{O}_{2(g)} \rightleftharpoons 2\text{SO}_{3(g)}$	$K_c=279$	727
	$K_c=729$	550
$\text{CaCO}_{3(s)} \rightleftharpoons \text{CaO}_{(s)} + \text{CO}_{2(g)}$	$K_p=0.25$	800
	$K_c=2.84 \cdot 10^{-3}$	800
$\text{N}_{2(g)} + 3\text{H}_{2(g)} \rightleftharpoons 2\text{NH}_{3(g)}$	$K_p=7.08 \cdot 10^{-4}$	327
	$K_p=4.30 \cdot 10^{-5}$	427
	$K_p=6.64 \cdot 10^5$	25
	$K_c=100$	257
	$K_p=2.97 \cdot 10^{-6}$	1000
$2\text{H}_2\text{O}_{(g)} \rightleftharpoons 2\text{H}_{2(g)} + \text{O}_{2(g)}$	$K_c=9.3 \cdot 10^{-12}$	1000
$2\text{HCl}_{(g)} \rightleftharpoons \text{Cl}_{2(g)} + \text{H}_{2(g)}$	$K_c=10^{-7}$	1000
$4\text{HCl}_{(g)} + \text{O}_{2(g)} \rightleftharpoons 2\text{Cl}_{2(g)} + 2\text{H}_2\text{O}_{(g)}$	$K_c=1.1 \cdot 10^{-3}$	1000
$\text{CO}_{(g)} + \text{H}_2\text{O}_{(g)} \rightleftharpoons \text{CO}_{2(g)} + \text{H}_{2(g)}$	$K_p=5$	530
$\text{H}_{2(g)} + \text{Cl}_{2(g)} \rightleftharpoons 2\text{HCl}_{(g)}$	$K_c=3.17 \cdot 10^{16}$	27
$\text{COCl}_{2(g)} \rightleftharpoons \text{CO}_{(g)} + \text{Cl}_{2(g)}$	$K_p=0.3178$	538
	$K_c=4.77 \cdot 10^{-3}$	538