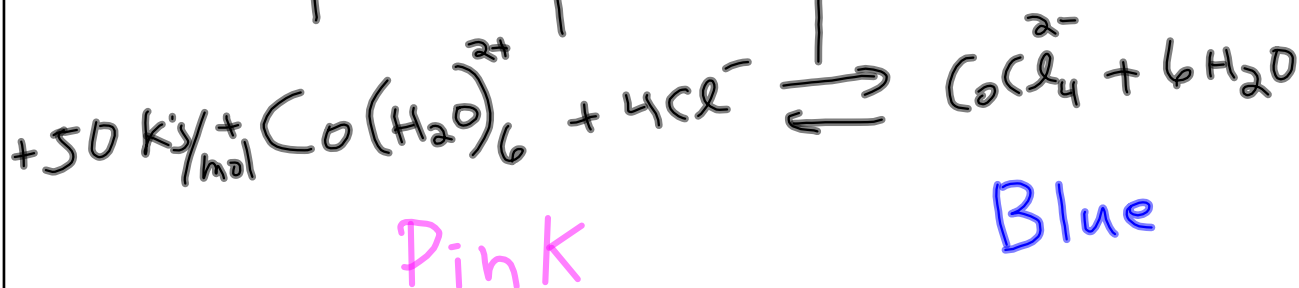


Le Chatelier's Principle- Lab Observations

Change	Stress	Colour	Shift to R or P
Add H ₂ O	↑ [H ₂ O]	P	Reactants
Add HCl	↑ [Cl ⁻]	B	Products
Add CaCl ₂	↑ [Cl ⁻]	P B	Products
Add AgNO ₃	↓ [Cl ⁻]	P	Reactants
Add Heat	↑ heat	B	Products
Cool	↓ heat	P	Reactants



Le Chatelier's Principle

If a system at equilibrium is stressed, it will "shift" (Reactant or product) to reduce the stress.

Example - p. 528



	Stress	Shift	Consequences
a	$\uparrow [PCl_5]$	P	lowers $\downarrow PCl_5$
b	$\downarrow [Cl_2]$	P	increases $[Cl_2]$
c	\downarrow temp.	R	increases heat
d	\uparrow pressure	R	Shift to fewer gas particles
e	catalyst	no shift in equilibr.	$1 \leftarrow 2$ lowers pressure both forward & reverse rxns. faster.

Summary - $[]$, temp., pressure are stress

Read Table 13.2 p. 528
 Questions p. 533 #1-5
 p. 536 #20