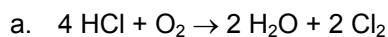


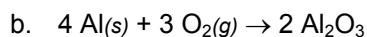
Unit 6: Redox Reactions and Electrochemistry

Practice Set 2: Recognizing Redox Reactions

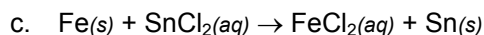
1. For each of the following reactions, complete the summary table below the equation. If an element does not undergo any change, leave the last two columns blank



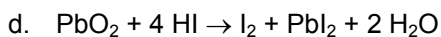
element	Initial Ox. No		Final Ox. No.	e ⁻ gained or lost	Oxidized or reduced	Agent
H	+1	→	+1	0	--	--
Cl	-1	→	0	1	oxidized	reducing agent
O	0	→	-1	2	reduced	oxidizing agent



element	Initial Ox. No		Final Ox. No.	e ⁻ gained or lost	Oxidized or reduced	Agent
Al	0	→	+3	3	oxidized	reducing agent
O	0	→	-2	2	reduced	oxidizing agent

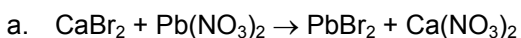


element	Initial Ox. No		Final Ox. No.	e ⁻ gained or lost	Oxidized or reduced	Agent
Fe	0	→	+2	2	oxidized	reducing agent
Sn	+2	→	0	2	reduced	oxidizing agent
Cl	-1	→	-1	--	--	--

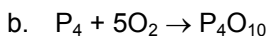


element	Initial Ox. No		Final Ox. No.	e ⁻ gained or lost	Oxidized or reduced	Agent
Pb	+4	→	+2	gain 2 e ⁻	reduction	oxidizing agent – PbO ₂
O	-2	→	-2	0		
H	+1	→	+1	0		
I (to I ₂)	-1	→	0	lose 1	oxidation	reducing agent – HI
I (to PbI ₂)	-1	→	-1	0		

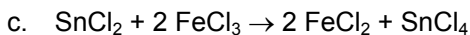
2. For each of these reactions, determine whether or not it is a redox reaction. If any are, identify oxidizing and reducing agents in those reactions.



element	Initial Ox. No		Final Ox. No.	e ⁻ gained or lost	Oxidized or reduced	Agent
Not a redox reaction – no substance undergoes a change in oxidation number.						



element	Initial Ox. No		Final Ox. No.	e ⁻ gained or lost	Oxidized or reduced	Agent
P	0	→	+5	5	oxidized	reducing agent
O	0	→	-2	2	reduced	oxidizing agent



element	Initial Ox. No		Final Ox. No.	e ⁻ gained or lost	Oxidized or reduced	Agent
Sn	+2	→	+4	2	oxidized	reducing agent
Fe	+3	→	+2	1	reduced	oxidizing agent