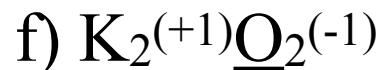


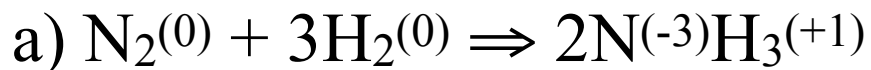
4.45

	<u>oxidation</u>	<u>reduction</u>
<u>electron transfer</u>	electrons lost	electrons gained
<u>oxidation number</u>	oxidation number increases	oxidation number decrease (reduced)

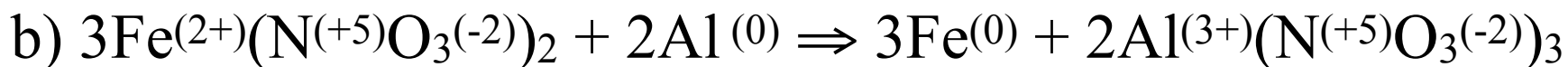
4.47 Oxidation refers to the losing of electrons. As such, this question is asking us to determine with atoms lose electrons most readily. We know that group I and II metals (A) are large and weak, meaning they have low ionization energies. As such, they are the most readily oxidized. Conversely, non-metals (D) are compact, high ionization energy atoms, meaning they are least readily oxidized.



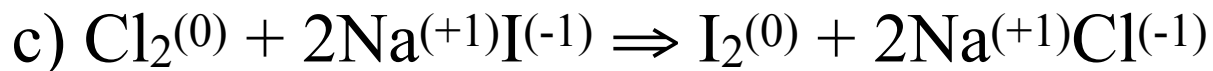
4.51



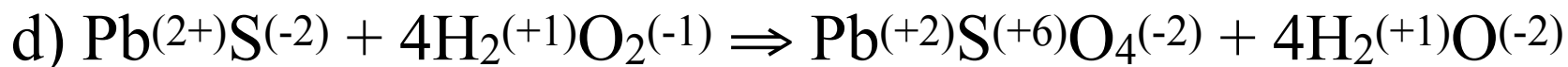
nitrogen is reduced, hydrogen is oxidized



Fe^{2+} is reduced, aluminum is oxidized

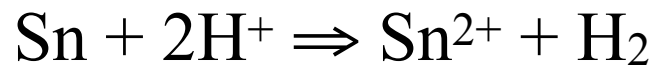
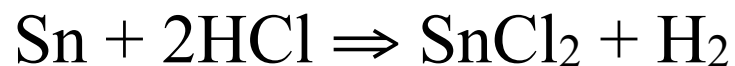


chlorine gas is reduced, iodide ion is oxidized

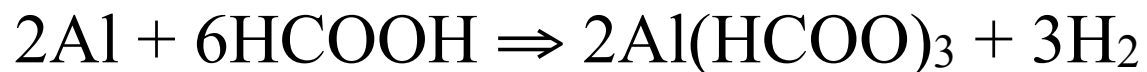


oxygen is reduced, sulfur is oxidized

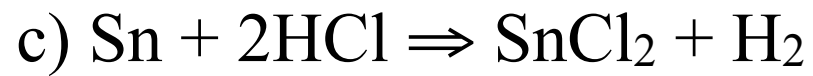
4.53



4.53



4.53



4.53

