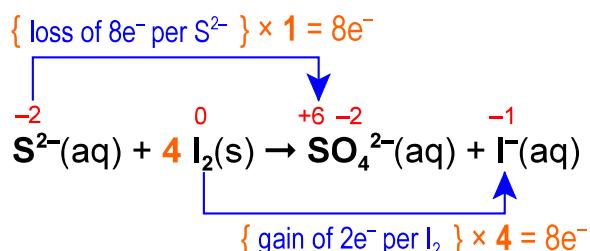


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ANSWERS

4(b)

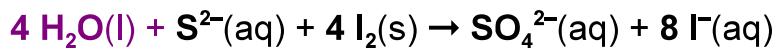
1. Balance the charge transfer.



2. Balance all atoms except hydrogen and oxygen.



3. Balance oxygen using water molecules.



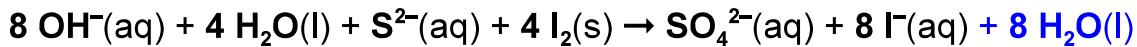
4. Balance hydrogen using hydrogen ions.



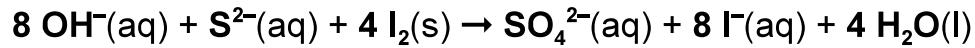
5. To both sides, add hydroxide ions equal to the number of hydrogen ions present in the equation.



6. Combine hydrogen ions and hydroxide ions to make water molecules.

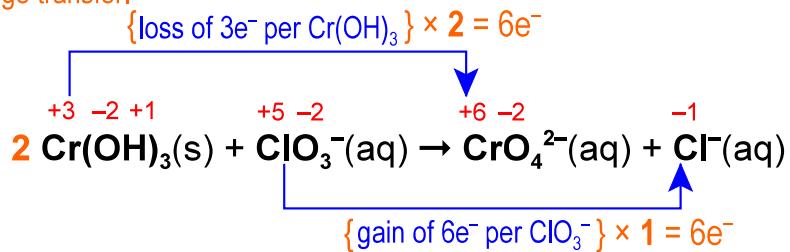


7. Reduce the water (remove 4 H₂O from both sides).

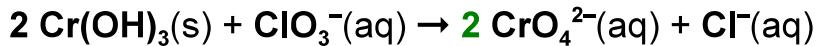


6(b)

1. Balance the charge transfer.



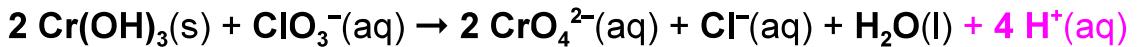
2. Balance all atoms except hydrogen and oxygen.



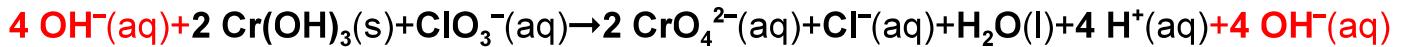
3. Balance oxygen using water molecules.



4. Balance hydrogen using hydrogen ions.



5. To both sides, add hydroxide ions equal to the number of hydrogen ions present in the equation.



6. Combine hydrogen ions and hydroxide ions to make water molecules.



7. Combine the water terms.

