OXIDANTS

Name	Half equation	colour
Permanganate	**$\underline{MnO_4^-}$ → $\underline{Mn^{2+}}$**	**purple**
(MnO_4^-/H^+)	ON= +7 → +2 reduced	**to**
Balanced equation	$5e^- + 8H^+ + MnO_4^- \rightarrow Mn^{2+} + 4H_2O$	**colourless**

Name	Half equation	colour
Dichromate	**$\underline{Cr_2O_7^{2-}}$ → $\underline{Cr^{3+}}$**	**orange**
($Cr_2O_7^{2-}/H^+$)	ON= +6 → +3 reduced	**to**
Balanced equation	$6e^- + 14H^+ + Cr_2O_7^{2-} \rightarrow 2Cr^{3+} + 7H_2O$	**green**

Name	Half equation	colour
Iron (III)	**$\underline{Fe^{3+}}$ → $\underline{Fe^{2+}}$**	**rust orange**
(Fe^{3+})	ON= +3 → +2 reduced	**to**
Balanced equation	$e^- + Fe^{3+} \rightarrow Fe^{2+}$	**pale green**

Name	Half equation	colour
Hydrogen peroxide	**$\underline{H_2O_2}$ → $\underline{H_2O}$**	**colourless**
(H_2O_2)	ON= -1 → -2 reduced	**to**
Balanced equation	$2e^- + 2H^+ + H_2O_2 \rightarrow 2H_2O$	**colourless**

Name	Half equation	colour
iodate	**$\underline{IO_3^-}$ → $\underline{I_2}$**	**colourless**
(IO_3^-)	ON= +5 → 0 reduced	**to**
Balanced equation	$10e^- + 12H^+ + 2IO_3^- \rightarrow I_2 + 6H_2O$	**brown solid**

REDUCTANTS

Name	Half equation	colour
sulfite	**$\underline{SO_3^{2-}}$ → $\underline{SO_4^{-2}}$**	**colourless**
(SO_3^{-2})	ON= +4 → +6 oxidised	**to**
Balanced equation	$H_2O + SO_3^{2-} \rightarrow SO_4^{-2} + 2H^+ + 2e^-$	**colourless**

Name	Half equation	colour
Iron (II)	**$\underline{Fe^{2+}}$ → $\underline{Fe^{3+}}$**	**Pale green**
(Fe^{2+})	ON= +2 → +3 oxidised	**to**
Balanced equation	$Fe^{2+} \rightarrow Fe^{3+} + e^-$	**rust orange**

Name	Half equation	colour
Hydrogen peroxide	**$\underline{H_2O_2}$ → $\underline{O_2}$**	**colourless**
(H_2O_2)	ON= -1 → 0 oxidised	**to**
Balanced equation	$H_2O_2 \rightarrow O_2 + 2H^+ + 2e^-$	**colourless gas**

Name	Half equation	colour
iodide	**$\underline{I^-}$ → $\underline{I_2}$**	**colourless**
(I^-)	ON= -1 → 0 oxidised	**to**
Balanced equation	$2I^- \rightarrow I_2 + 2e^-$	**brown solid**

NOTE:

Oxidants: Reduced. Electrons on the left hand side. Oxidation Number decreases

Reductants: Oxidised. Electrons on the right hand side. Oxidation number increases.

Oxidation number linked to underlined atom