

16. Which one of the following reactions would **not** produce a current at 25.0 °C, when set up as a galvanic cell?

- (a) $\text{MnO}_4^-(\text{aq}) + 8 \text{H}^+(\text{aq}) + 5 \text{Fe}^{2+}(\text{aq}) \rightarrow \text{Mn}^{2+}(\text{aq}) + 4 \text{H}_2\text{O}(\text{l}) + 5 \text{Fe}^{3+}(\text{aq})$
- (b) $\text{Fe}(\text{s}) + \text{Pb}^{2+}(\text{aq}) \rightarrow \text{Fe}^{2+}(\text{aq}) + \text{Pb}(\text{s})$
- (c) $\text{Br}_2(\text{l}) + 2 \text{Cl}^-(\text{aq}) \rightarrow 2 \text{Br}^-(\text{aq}) + \text{Cl}_2(\text{g})$
- (d) $\text{Fe}(\text{s}) + \text{Cu}^{2+}(\text{aq}) \rightarrow \text{Fe}^{2+}(\text{aq}) + \text{Cu}(\text{s})$