

When a piece of indium metal, In(s) , is placed in some acidified dichromate solution, $\text{Cr}_2\text{O}_7^{2-}(\text{aq})$, a reaction occurs resulting in $\text{In}^{3+}(\text{aq})$ ions being produced. The equation for this reaction is shown below.



The EMF for this reaction at $25.0\text{ }^\circ\text{C}$ was found to be $+1.70\text{ V}$.

6. According to the Standard Reduction Potential Table, which of the following sets of metals **cannot** be oxidised by indium ion, In^{3+} , under standard conditions.
- (a) Sn, Cd, Fe, Cr
 - (b) Mg, Na, Ca, Sr
 - (c) Mn, Ni, Sn, Cu
 - (d) Ni, Sn, Cu, Ag