

When a piece of indium metal,  $\text{In(s)}$ , 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  $25.0^\circ\text{C}$  was found to be  $+1.70 \text{ V}$ .

5. What is the calculated  $E^\circ$  value for the  $\text{In}^{3+}/\text{In}$  half-equation?

- (a)  $-0.34 \text{ V}$
- (b)  $0.34 \text{ V}$
- (c)  $1.36 \text{ V}$
- (d)  $3.06 \text{ V}$