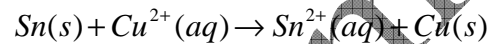
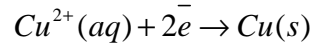
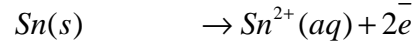
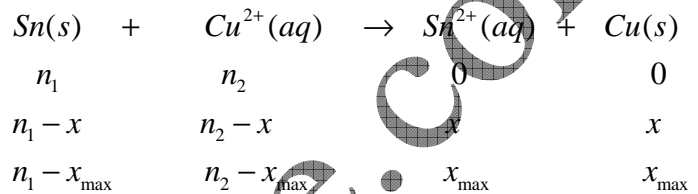


## حل التمرين 09

1. معادلة التفاعل :



الجدول الوصفي للتفاعل :



$$n_1 - x_{\max} = 0 \Rightarrow x_{\max} = n_1 \Rightarrow x_{\max} = \frac{m(\text{Sn})}{M(\text{Sn})} = \frac{55 \cdot 10^{-3}}{119} = 4,62 \cdot 10^{-4} \text{ mol}$$

$$n(\text{Cu}) = x_{\max}$$

$$n(\text{Cu}) = \frac{m(\text{Cu})}{M(\text{Cu})} \Rightarrow m(\text{Cu}) = n(\text{Cu})M(\text{Cu}) \Rightarrow m(\text{Cu}) = x_{\max}M(\text{Cu})$$

$$m(\text{Cu}) = 4,62 \cdot 10^{-4} \times 63,5 = 2,93 \cdot 10^{-2} \text{ g} = 29,3 \text{ mg}$$

$$n_2 - x_{\max} = 0 \Rightarrow n_2 = x_{\max} \Rightarrow [\text{Cu}^{2+}]_i = \frac{x_{\max}}{V} = \frac{4,62 \cdot 10^{-4}}{0,5} \quad .2$$

$$\Rightarrow [\text{Cu}^{2+}]_i = 9,24 \cdot 10^{-4} \text{ mol.L}^{-1}$$