SOLUCIÓN

1.-

Temperatura T (" 0.1) (K)	**Constante cinética** k_v (" 0.003) (mol l^{-1} h^{-1})	**Temperatura** T (" 0.1) (K)	**Constante cinética** k_v (" 0.003) (mol l^{-1} h^{-1})
300.0	0.026	360.0	0.100
320.0	0.061	380.0	0.172
340.0	0.080	400.0	0.271

2.-

X = 1/T (K^{-1}) 10^3	Y = Ln k_v	X=1/T (K^{-1}) 10^3	Y = Ln k_v
3.3333 " 0.0015	-3.65 " 0.15	2.7778 " 0.0008	-2.30 " 0.03
3.1250 " 0.0010	-2.80 " 0.05	2.6316 " 0.0007	-1.76 " 0.02
2.9412 " 0.0009	-2.53 " 0.04	2.5000 " 0.0007	-1.31 " 0.02

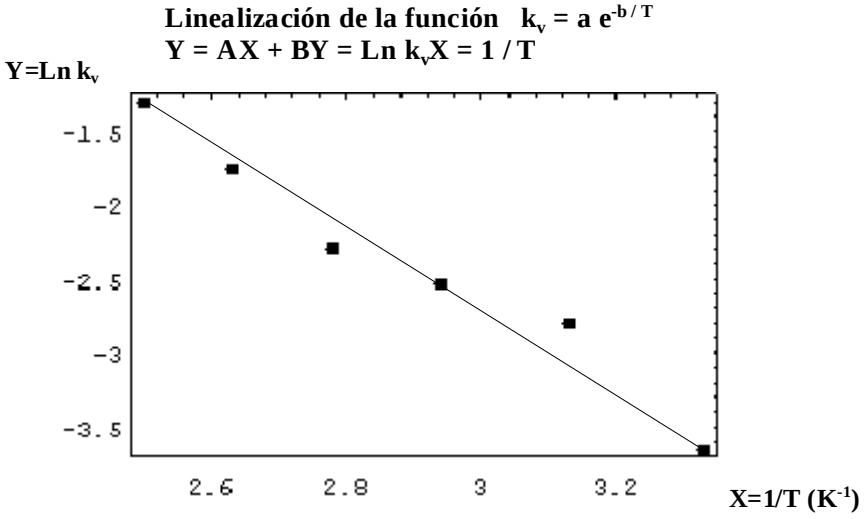
Nuevas variables y constantes

$$Y = AX + B \qquad Y = Ln\,k_v \qquad X = \frac{1}{T} \qquad A = -b \qquad B = Ln\,a$$

Errores

$$dX = -\frac{dT}{T^2} \quad \rightarrow \quad \Delta X = \frac{\Delta T}{T^2} \qquad\qquad dY = \frac{dk_v}{k_v} \quad \rightarrow \quad \Delta Y = \frac{\Delta k_v}{k_v}$$

3.-



4.-

$$k_v = a\,e^{-b/T} \qquad [b] = [1/T] = \theta^{-1} \qquad b\ (K^{-1})$$

5.-

$$B = Ln\,a \simeq 5.07 \qquad a = 159.17\ mol^{-1}\,l\,h^{-1}$$

$$A = -b \simeq -2585.25\,K^{-1}$$

$$a = 159\ mol^{-1}\,l\,h^{-1} = 159\left(\frac{dm^3}{mol\,h}\frac{m^3}{10^3\,dm^3}\frac{h}{3600\,s}\right) = 4.42\ 10^{-5}\ mol^{-1}\,m^3\,s^{-1}$$

$$b = 2585\,K^{-1}$$