

#Jenny



Finally I get this ebook, thanks for all these I can get now!

#Rio



Cool! I'am really happy

#Markus Jensen



I did not think that this would work, my best friend showed me this website, and it does! I get my most wanted eBook

#Hun Tsu



wtf this great ebook for free?!

#Che Salsa



My friends are so mad that they do not know how I have all the high quality ebook which they do not!

#Diego Butler



so many fake sites. this is the first one which worked! Many thanks

CDPE-A

a) Find number of moles and concentration

$$n = \frac{PV}{RT} = \frac{(20 \text{ atm}) (200 \text{ dm}^3)}{(8.3145 \frac{\text{kJPa dm}^3}{\text{molK}}) (500 \text{ K})} \left(\frac{101.33 \text{ kPa}}{1 \text{ atm}} \right) = 97.5 \text{ moles}$$
$$\text{mole}A = .75 * 97.5 = 73.1 \text{ mole}A$$
$$C_A = \frac{\text{mole}A}{\text{volume}} = \frac{73.1 \text{ mole}A}{200 \text{ dm}^3} = 0.37 \text{ mole}A$$

b) Determine reaction time

$$\frac{dN_A}{dt} = r_A V$$
$$\frac{dN_A}{dt} = -k N_A$$
$$\int_{N_A}^0 \frac{dN_A}{N_A} = -k \int_0^t dt$$
$$\ln .731 - \ln 73.1 = -k t$$
$$t = 23 \text{ min}$$

c) Determine reaction time

$$\frac{dN_A}{dt} = r_A V$$
$$C_A = \frac{N_A}{V}$$
$$\frac{dC_A}{dt} = -k C_A^2$$
$$\int_{C_A}^0 \frac{dC_A}{C_A^2} = -k \int_0^t dt$$
$$-10.8 = -0.7 t$$
$$t = 15 \text{ min}$$

[Download PDF version of :](#)
Solution Chemical Reaction Engineering