



$$2[\text{NH}_3] + 2[\text{Ag}(\text{NH}_3)_2^+] = 1$$

$$[\text{Ag}^+] + [\text{Ag}(\text{NH}_3)_2^+] = 0,1$$

$$K_d = \frac{[\text{NH}_3]^2 [\text{Ag}^+]}{[\text{Ag}(\text{NH}_3)_2^+]} \Rightarrow [\text{Ag}^+] = \frac{K_d [\text{Ag}(\text{NH}_3)_2^+]}{[\text{NH}_3]^2}$$

$$\text{Or } [\text{Ag}(\text{NH}_3)_2^+] = 0,1 - [\text{Ag}^+]$$

$$[\text{NH}_3] = \frac{1 - 2[\text{Ag}(\text{NH}_3)_2^+]}{2} = \frac{1 - 2(0,1 - [\text{Ag}^+])}{2} = 0,4 + [\text{Ag}^+]$$

$$\text{D'où } [\text{Ag}^+] = \frac{K_d 0,1 - K_d [\text{Ag}^+]}{(0,4 + [\text{Ag}^+])^2}$$

$$\Leftrightarrow 0,1 K_d [\text{Ag}^+] + 0,8 K_d [\text{Ag}^+]^2 + [\text{Ag}^+]^3 = K_d 0,1 - K_d [\text{Ag}^+]$$