



$$w_1/v_1=1; w_n/v_n=1- [\text{H}_2] / (\text{K}_m+[\text{H}_2]) \quad (\text{for } n=2, 3, 4, \text{ and } 5)$$

$$v_{np} = {}^2\alpha_p^+ v_{np} (\text{D/H})_{\text{H}_2\text{O}} ; \quad w_{np} = {}^2\alpha_p^- w_{np}$$

$$v_{ns} = {}^2\alpha_s v_{ns} ; \quad w_{ns} = {}^2\alpha_s w_{ns}$$