

$$\alpha_b^a = \frac{\delta_a + 10^3}{\delta_b + 10^3} \quad (\text{eq 17.12})$$

$$\delta D = 8\delta^{18}O + 10 \quad (\text{eq 17.27})$$

$$R_v = R_v^0 f^{\alpha-1} \quad (\text{eq 17.29})$$

$$10^3 \ln \alpha_{\text{water}}^{\text{calcite}} = \frac{2.78 \times 10^6}{T^2} - 2.89 \quad (\text{eq 17.39})$$

$$N = N_0 e^{-\lambda t}$$

$$t_{1/2} = \frac{\ln 2}{\lambda}$$

$$\tau = \frac{1}{\lambda}$$

$$\frac{D}{D_x} = \left(\frac{D}{D_x} \right)_0 + \left(\frac{P}{D_x} \right) (e^{\lambda t} - 1)$$