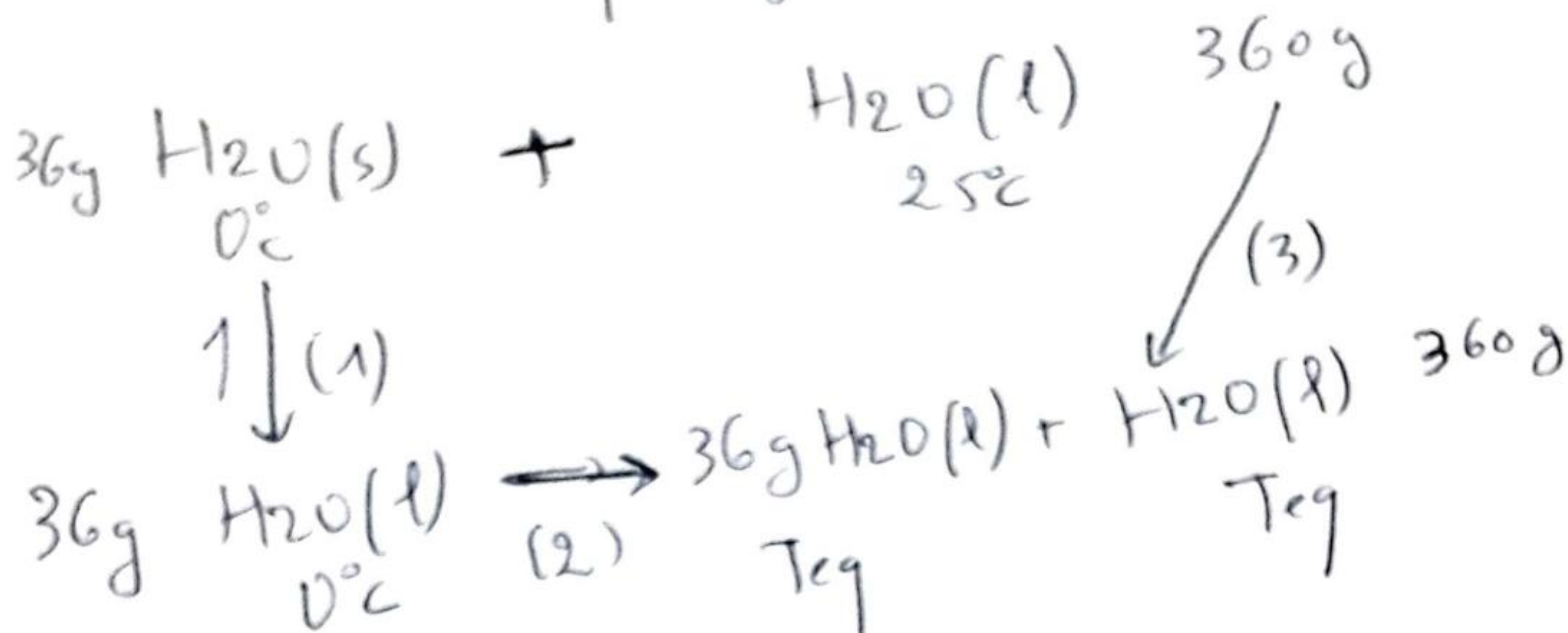


Exercice 3:  $\left\{ \begin{array}{l} 360g \text{ de } H_2O \text{ à } 25^\circ C \\ 360g \text{ de glace à } 0^\circ C \end{array} \right.$



$$H_2O(s) \quad 36g \Rightarrow n = \frac{36}{18} = 2 \text{ mols}$$

$$H_2O(l) \quad 360g \Rightarrow n = 20 \text{ mols}$$

$$\bullet (1) \Delta H_1 = \Delta H_{\text{fusion}} = 2 \times 5,94 \cdot 10^3 = 11880 \text{ J}$$

$$\bullet \Delta H_3 = \int_{298}^{T_{eq}} 20 C_p dt = 20 \times 75,25 (T_{eq} - 298) = 1504,8 (T_{eq} - 298) \text{ J}$$

$$\bullet \Delta H_2 = \int_{273}^{T_{eq}} 2 \times 75,25 dt = 2 \times 75,25 (T_{eq} - 273)$$

$$\text{adiabatique} \Rightarrow \sum Q = 0 \Rightarrow \Delta H_1 + \Delta H_2 + \Delta H_3 = 0$$

$$\Rightarrow T_{eq} = 288,5 \text{ K} = 15,5^\circ C$$

Pafe 4 Perio 2