

**International Master's Programs of Chemical Engineering in the Graduate School of Engineering,
Kyushu University (Academic Year from October, 2026)**

Subject : Chemical Thermodynamics

(1.1) $V_f = 7.46 \times 10^{-2} \text{ m}^3$

$T_f = 269 \text{ K}$

$\Delta U = -3.48 \text{ kJ}$

$w_{\text{ad}} = -3.48 \text{ kJ}$

(1.2) $3.37 \times 10^5 \text{ kJ}$

(2.1) 40 kJ mol^{-1}

(2.2) 19 g kg^{-1}

(2.3) $K = 0.018$

$T = 1400 \text{ K}$