

Exercise 4.13

Thursday, 30 April 2020 19:47

$$m = 1 \text{ kg}$$

$$T_1 = -20^\circ\text{C}$$

$$T_2 = 0^\circ\text{C}$$

$$T_3 = 100^\circ\text{C}$$

$$T_4 = 400^\circ\text{C}$$

$$20\text{K} \cdot 0.55 \text{ Kcal kg}^{-1} \text{K}^{-1} \cdot 1 \text{ kg} = 11 \text{ Kcal}$$

$$20 \text{ Kcal kg}^{-1} \cdot 1 \text{ kg} = 20 \text{ Kcal}$$

$$100 \text{ K} \cdot 1.00 \text{ Kcal kg}^{-1} \text{K}^{-1} \cdot 1 \text{ kg} = 100 \text{ Kcal}$$

$$538 \text{ Kcal kg}^{-1} \cdot 1 \text{ kg} = 538 \text{ Kcal}$$

$$300 \text{ K} \cdot 0.48 \text{ Kcal kg}^{-1} \text{K}^{-1} \cdot 1 \text{ kg} = 144 \text{ Kcal}$$

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$$873 \text{ Kcal} = 3.65 \cdot 10^6 \text{ J}$$