

Question #85133, Chemistry / General Chemistry | for completion

if 25 J are required to change the temperature of 5.0 g of a substance A by 2.0 degrees celsius, what is the specific heat of a substance A

Solution:

$$m = 5 \text{ g} = 0.005 \text{ kg}$$

$$c = \frac{Q}{m \cdot \Delta T} = \frac{25 \text{ J}}{0.005 \text{ kg} \cdot 2 \text{ K}} = 250 \frac{\text{J}}{\text{kg} \cdot \text{K}}$$

Answer: $250 \frac{\text{J}}{\text{kg} \cdot \text{K}}$

Answer provided by www.AssignmentExpert.com