

Answer on Question #49860, Chemistry, Other

Task:

Calculate w , and determine whether work is done by or on the system when 435 J of heat is absorbed and $\Delta U = 710$ J.

Answer:

$$\Delta U = q + w$$

$$w = \Delta U - q$$

Heat absorbed by the system (endothermic process) – q is positive

$$w = 710 - 435 = 275 \text{ J}$$

Work done on a system by surroundings (for example, a volume decrease) – w is positive