

Work and heat

- **Mechanical work** is a measure of mechanical energy transferred from one body to another.
- **Thermal quantity ΔQ** = the amount of energy of thermal motion of molecules transferred from one body to another by heat exchange.

$$\Delta Q = m \cdot C \cdot \Delta T$$

m = mass, C = specific heat, ΔT = temperature change

- **The heat of the system** = the sum of the kinetic energies of its constantly moving particles
- **Heat** = a macrophysical form of energy transferred from a system doing work to a system receiving it

Work can be used to increase the content of any energy, while if heat is not converted into work, it can only increase the internal energy of the system.

Therefore, these two quantities cannot be confused, even if we express both in the same units (J).

Links

Source

- KUBATOVA, Senta. *Biofot* [online]. [cit. 2011-01-31]. <<https://uloz.to/!CM6zAi6z/biofot-doc>>.