

kleines Becherglas:  $m_1 = 146,18 \text{ g}$

großes Becherglas:  $M_2 = 203,48 \text{ g}$

Zinn:  $m = 203 \text{ g}$

Aluminium:  $m = 153 \text{ g}$  Kupfer:  $m = 237 \text{ g}$

→ Zur Bestimmung der Wärmekapazität  $c_{\text{Mg}}$  des Kalorimeters:

$$m_x = 503,64 \text{ g}, m_y = 439,44 \text{ g}, T_y = 22,0^\circ\text{C}, T_x = 74,5^\circ\text{C}$$

↑  
großes Becherglas      kleines Becherglas

$$\rightarrow T_m' = 46,4^\circ\text{C}$$

Dewar-Gefäß  $m_D = 850,99 \text{ g}$

① Zinn a)  $T_K = 83,3^\circ\text{C}$

Mischtemperatur:  $T_m' = 22,1^\circ\text{C}$

$$m_D + m_{w,1} = 1145,50 \text{ g}, m_1 + m_{w,2} = 494,43 \text{ g}, T_w = 21,8^\circ\text{C}$$

$$\rightarrow m_w = m_{w,1} + m_{w,2}$$

b)  $T_K = 83,1^\circ\text{C}$

Mischtemperatur:  $T_m' = 22,7^\circ\text{C}$

$$m_D + m_{w,1} = 464,99 \text{ g}, m_1 + m_{w,2} = 473,31 \text{ g}, T_w = 21,6^\circ\text{C}$$

c)  $T_K = 75,8^\circ\text{C}$

Mischtemperatur:  $T_m' = 22,3^\circ\text{C}$

$$m_1 + m_{w,1} = 500,94 \text{ g}, m_1 + m_{w,2} = 450,88 \text{ g}, T_w = 21,3^\circ\text{C}$$

② Aluminium a)  $T_K = 87,2^\circ\text{C}$

Mischtemperatur:  $T_m' = 24,0^\circ\text{C}$

$$m_1 + m_{w,1} = 476,09 \text{ g}, m_1 + m_{w,2} = 470,90 \text{ g}, T_w = 21,0^\circ\text{C}$$

b)  $T_K = 82,8^\circ\text{C}$

Mischtemperatur:  $T_m' = 23,7^\circ\text{C}$

$$m_1 + m_{w,1} = 475,85 \text{ g}, m_1 + m_{w,2} = 466,38 \text{ g}, T_w = 21,3^\circ\text{C}$$

c)  $T_K = 75,1^\circ\text{C}$

Mischtemperatur:  $T_m' = 23,5^\circ\text{C}$

$$m_1 + m_{w,1} = 490,75 \text{ g}, m_1 + m_{w,2} = 470,88 \text{ g}, T_w = 21,0^\circ\text{C}$$

③  $T_K = 89,2^\circ\text{C}$

Mischtemperatur:  $T_m' = 22,9^\circ\text{C}$

$$\uparrow \text{Kupf.} \\ m_1 + m_{w,1} = 469,95 \text{ g}, m_1 + m_{w,2} = 477,23 \text{ g}, T_w = 20,9^\circ\text{C}$$