College Prep Chemistry of the Earth System

Assignment 7E – Solving Equations with Specific Heat

20 Points

Specific Heat Equation Forms

Specific Heat	q=	c·m·	ΔΤ	c =	q m·ΔT	- m = -	q c·ΔT	- ΔT =	e q c·m
Change in T	Δ	T = T	T _{final} -	T _{ini}	$T_{\rm final}$	$\Delta T + T_{ini}$	·	$T_{ini} =$	T_{final} - ΔT

 $\Delta T =$

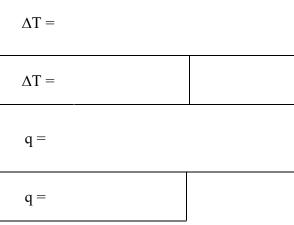
q =

Solve the following heat capacity problems

$c_{\text{Co}} = 0.42 \text{J/°C}$, $m_{\text{Co}} = 58.35 \text{g}$ $T_{\text{ini}} = 89.38 ^{\circ}\text{C}$, $T_{\text{final}} = 51.37 ^{\circ}\text{C}$						
$\Delta T = \underline{\hspace{1cm}}$	$^{\circ}C, q = _{J}$					
4.T						
$\Delta T =$						

$$T_{ini}$$
 = 41.39°C, T_{final} = 52.85°C
 ΔT = ___°C, q = ___J

 $C_{Li} = 3.52 \text{J/}^{\circ}\text{C}$, $m_{Li} = 48.21 \text{g}$





$$q = 583.20J, m = g,$$
 $c_{Ni} = 0.44J/g^{\circ}C, \Delta T = 14.28^{\circ}C$

$$q = -827.42J, m = g,$$

 $c_{In} = 0.13J/g^{\circ}C, \Delta T = -48.23^{\circ}C$

m =

m =

q = 1038.29J, m = 84.28g, $c_{Ca} = 0.63J/g^{\circ}C, \Delta T = \underline{\hspace{1cm}^{\circ}C}$ m =

 $\Delta T = -$

q = -838.52J, m = 41.59g,

 $c_{Fe} = 0.45 \text{J/g}^{\circ}\text{C}, \Delta T = \underline{^{\circ}\text{C}}$

 $\Delta T =$

m =

 $\Delta T =$

 $\Delta T =$