

$\frac{5}{32} \quad \frac{2.425}{g K} \quad EG, \text{---} J, 62g EG$

2.425	62g	27.4K
g K		

$13.1^{\circ}C \rightarrow 40.5^{\circ}C$   
 $\Delta T = 27.4^{\circ}C$   
 $\Delta T = 27.4 K$

Oct 16-7:54 AM

$\frac{5}{64} \quad \underline{N_2O} \rightarrow \cancel{N_2} + \frac{1}{2} O_2 \quad \frac{1}{2}(-163.2) kJ$

$\underline{NO_2} \rightarrow NO + \frac{1}{2} O_2 \quad + \frac{1}{2}(113.1) kJ$

$\cancel{N_2} + \cancel{O_2} \rightarrow 2NO \quad + 180.7 kJ$

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$N_2O + NO_2 \rightarrow 3NO$

Oct 16-8:18 AM

S/S4a

$Q = mc\Delta T$

$C = \frac{Q}{m\Delta T}$

$\frac{\text{J}}{\text{g} \cdot ^\circ\text{C}}$ Spec. heat (c)	$\frac{\text{J}}{\text{g}}$ Heat Capacity (C)
$\frac{\text{J}}{\text{mole} \cdot ^\circ\text{C}}$ Molar Spec. heat	$\frac{\text{J}}{\text{mole}}$ Molar heat Capacity

Oct 16-8:25 AM

S/SY

$\text{NH}_4\text{NO}_3(\text{s}) \rightarrow \text{NH}_4^+(\text{aq}) + \text{NO}_3^-(\text{aq})$

388g J

60g H<sub>2</sub>O

$\Delta T = 4.6^\circ\text{C}$

Find  $\frac{\text{kJ}}{\text{mole NH}_4\text{NO}_3}$

$\frac{4.18 \text{ J}}{\text{g} \cdot ^\circ\text{C}}$  } Set for soln

$\frac{4.18 \times 10^{-3} \text{ (kJ)}}{\text{g} \cdot ^\circ\text{C}} \times 4.6 \cdot \frac{60 + 3.88}{63.88 \text{ g}} = 1.23 \text{ kJ}$

$\frac{1.23 \text{ kJ}}{3.88 \text{ g NH}_4\text{NO}_3} \times \frac{80 \text{ g NH}_4\text{NO}_3}{1 \text{ mole NH}_4\text{NO}_3} = 25.4 \frac{\text{kJ}}{\text{mole NH}_4\text{NO}_3}$

Oct 16-8:29 AM

Last page PS 5-1



$$\Delta H_{\text{rxn}} = n \sum \Delta H_{\text{prod}} - n \sum \Delta H_{\text{react.}}$$

$$= 2 \Delta H_{\text{H}_2\text{O}} - (2 \Delta H_{\text{H}_2} + \Delta H_{\text{O}_2})$$

Q112 ~~Q114~~

Oct 16-8:44 AM

PS 5-1

\* 1-10

10-30 even

Oct 16-8:47 AM