Results for ch6-B

Your Assignment Results

You received 0 out of 10 possible points (not including any ungraded questions). Your final grade is 0 %

Question		Possible Points	Your Score
1.	An endothermic process ○ raises the temperature of one gram of a substance by one degree Celcius. Correct answer: ○ takes in heat from the surroundings. ○ increases the acidity of the surroundings. ○ gives off heat to the surroundings. ○ releases carbon dioxide into the surroundings.	1	0
2.	The chemical equation describing the conversion of SO_2 into SO_3 is shown below. Calculate ΔH^o when 89.6 g of SO_2 is converted into SO_3. $SO_2(g) + ½O_2(g) \longrightarrow SO_3(g)\ \Delta H^o_{rxn} = -99.1$ kJ ○ -69.3 kJ Correct answer: ○ -139 kJ ○ 69.3 kJ ○ 139 kJ ○ -111 kJ	1	0
3.	How much energy in calories is required to heat 25.0 g of platinum (specific heat capacity = 0.032 cal/g.K) from 24.5 °C to 75.0 °C? ○ 48 cal ○ 20. cal ○ 80 cal Correct answer: ○ 40. cal ○ None of the above.	1	0
4.	If a substance has a specific heat capacity of 1.0 J/g·°C and a density of 2.0 g/mL, how much energy would be required to raise the temperature of 100 mL of the substance from 25 to 45 °C? ○ 0.20 kJ ○ 2.0 kJ Correct answer: ○ 4 kJ ○ 8 kJ	1	0
5.	A 0.468-g sample of pentane (C_5H_{12}) was burned in a bomb calorimeter. The temperature of the calorimeter and the 1.00 kg of water rose from 20.45 to 23.65 °C. The specific heat capacity of the calorimeter is 2.21 kJ/°C, and the specific heat capacity of water is 4.184 J/g·°C. What is the heat of combustion of one mole of C_5H_{12}? ○ -7.07×10^3 kJ/mol ○ -2.05 kJ/mol Correct answer: ○ -3.16×10^3kJ/mol ○ 1.34×10^4 kJ/mol ○ 3.16×10^3 kJ/mol	1	0
6.	Calculate the standard heat of formation of carbon disulfide (CS_2) from its elements, $C(s) + 2\ S(s) \longrightarrow CS_2(l)$, given that: $C(s) + O_2(g) \longrightarrow CO_2(g)$, $\Delta H = -393.5$ kJ; $S(s) + O_2(g) \longrightarrow SO_2(g)$, $\Delta H = -296.8$ kJ; and $CS_2(l) + 3\ O_2(g) \longrightarrow CO_2(g) + 2\ SO_2(g)$, $\Delta H = -1076.8$ kJ. ○ -1767.1 kJ ○ -386.5 kJ Correct answer: ○ 89.7 kJ	1	0

	◯ 386.5 kJ ◯ None of the above		
7.	For which of the substances below is $\Delta H^o_f = 0$? Correct answer: ◯ $O_2(g)$ ◯ $N_2(l)$ ◯ Na(g) ◯ Xe(l) ◯ A and B	1	0
8.	To which of the following reactions occurring a 25 °C does the symbol ΔH^o_f [$H_2O(l)$] apply? ◯ $H_2O(l)$ ---> 2 H(g) + O(g) ◯ 2 H(g) + O(g) ---> $H_2O(l)$ ◯ $H_2(l) + ½O_2(l)$ ---> $H_2O(l)$ Correct answer: ◯ $H_2(g) + ½O_2(g)$ ---> $H_2O(l)$ ◯ $H_2O(g)$ ---> $H_2O(l)$	1	0
9.	The heat of solution of KCl is 17.2 kJ/mol, and the combined heats of hydration of one mole of gaseous chloride ions and one mole of gaseous potassium ions is -698 kJ. What is the lattice energy of potassium chloride? ◯ -681 kJ/mol Correct answer: ◯ 715 kJ/mol ◯ -715 kJ/mol ◯ -332 kJ/mol ◯ 681 kJ/mol	1	0
10.	A certain gas expands in volume from 2.0 L to 24.5 L at constant temperature. Calculate the work done by the gas if it expands against a constant pressure of 5 atm. ◯ -112.5 J ◯ 1.24×10^4 J Correct answer: ◯ -1.14×10^4 J ◯ 113 J ◯ 1.14×10^4 J	1	0

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