Thermochemical equations

Work sheet

Activity 1 : Writing the Thermochemical equation:

1. Write the thermochemical equation of Combustion of sucrose ($C_{12}H_{22}O_{11}$) forming carbon dioxide and liquid water , the energy released is 5644 KJ/ mol.

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2. Write the thermochemical equation of combustion of methane (CH_4)

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3. Write the thermochemical equation of combustion of methane (C_2H_5OH) , $\Delta H = -1367$ KJ

Activity 2 : Identify which of the reaction is endothermic reaction and which one is exothermic reaction :

Equation	Type of reaction	Equation	Type of reaction
$C_3H_{8(g)} \rightarrow C_3H_{8(l)}$		$C_{10}H_{8(s)} \rightarrow C_{10}H_{8(l)}$	
$CO_{2(s)} \rightarrow CO_{2(g)}$		$H_2O_{(l)} \rightarrow H_2O_{(s)}$	

Activity 3 : Calculating the amount of heat :

A) How much heat is released from the condensation of 1255 g of water vapor to liquid water at 100°C ?

B) Choose the correct answer :

An amount of ammonia (NH_3) release 5.66 KJ of heat when it solidification at melting point , calculate the mass of ammonia ?

a) 5.66 g
b) 1 g
c) 17 g
d) 0.058 g