

تم تحميل هذا الملف من موقع المناهج الإماراتية



حل أسئلة اختبار تدريبي وفق الهيكل الوزاري

موقع المناهج ← المناهج الإماراتية ← الصف الثاني عشر المتقدم ← كيمياء ← الفصل الأول ← حلول ← الملف

تاريخ إضافة الملف على موقع المناهج: 14:54:35 2024-12-05

ملفات اكتب للمعلم اكتب للطالب | اختبارات الكترونية | اختبارات | حلول | عروض بوربوينت | أوراق عمل
منهج انجليزي | ملخصات وتقارير | مذكرات وبنوك | الامتحان النهائي للمدرس

المزيد من مادة
كيمياء:

التواصل الاجتماعي بحسب الصف الثاني عشر المتقدم



صفحة المناهج
الإماراتية على
فيسبوك

الرياضيات

اللغة الانجليزية

اللغة العربية

التربية الاسلامية

المواد على تلغرام

المزيد من الملفات بحسب الصف الثاني عشر المتقدم والمادة كيمياء في الفصل الأول

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Chemistry Exam- 2024\2025 year

12 Advanced

1-A fruit-and-oatmeal bar contains 142 nutritional Calories. Convert this energy to calories

1. 142 Kcal
2. 142 cal
3. 130 Cal
4. 0.142 cal

2-the amount of heat required to raise the temperature of one gram of that substance by one degree Celsius.

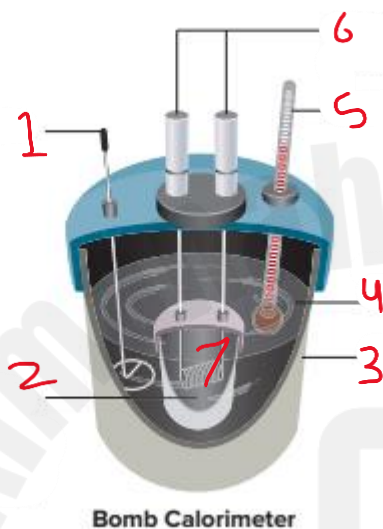
1. Joule
2. Calorie
3. Calorie
4. Specific heat

3-If two substances with equal masses absorb the same amount of energy, how will their temperature changes compare?

- A) The substance with a higher specific heat will have a larger temperature increase.
- B) The substance with a lower specific heat will have a larger temperature increase.
- C) Both substances will have the same temperature increase.
- D) The temperature change depends only on the type of substance, not its specific heat.

4- A 155-g sample of an unknown substance was heated from 25.0°C to 40.0°C and absorbed 5696 J of energy. What is the specific heat of the substance?

- A) 3.75 J/g°C
- B) 2.45 J/g°C**
- C) 1.25 J/g°C
- D) 4.50 J/g°C



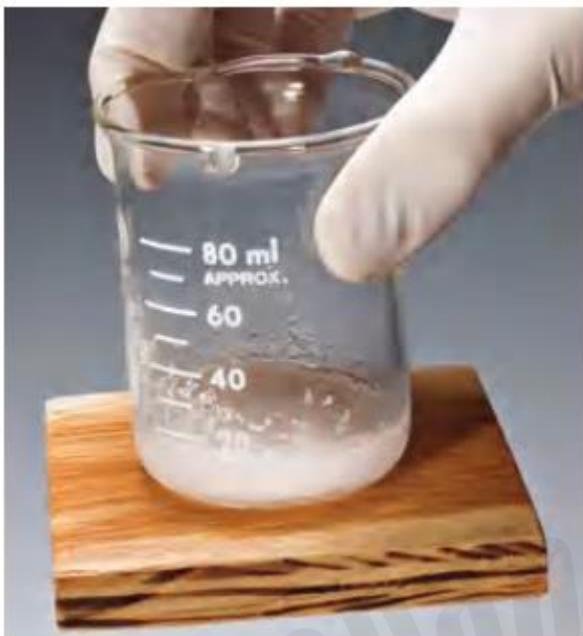
Bomb Calorimeter

5-

- a- high pressured oxygen in 7**
- b- stirrer is 6
- c- ignition terminals are 1
- d- used under open atmosphere

6-The temperature of a sample of water increases from 20.0°C to 46.6°C as it absorbs 5650 J of heat. What is the mass of the sample?

- A) 25.2 g
- B) 50.5 g**
- C) 75.8 g
- D) 100.0 g



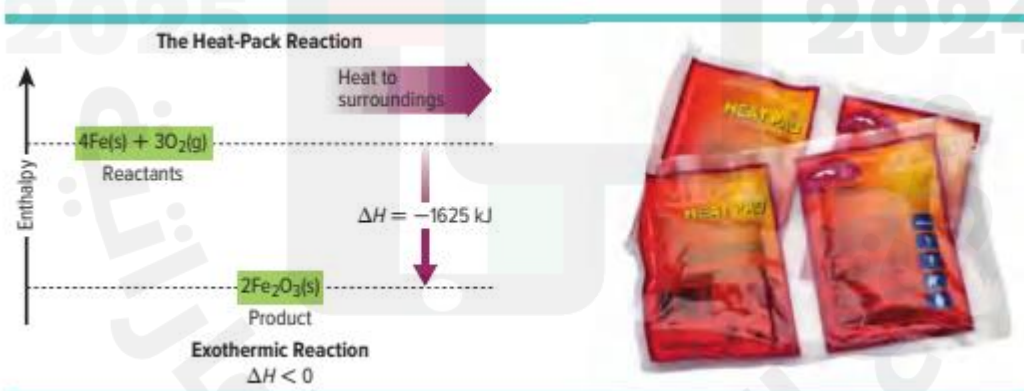
7-

A) Heat flows from the system to the surroundings.

B) Heat flows from the surroundings to the system.

C) The temperature of the system increases, and the surroundings cool down.

D) The system and surroundings both heat up.



8-

A) The arrow points upwards, indicating heat is absorbed from the surroundings.

B) The arrow points downward, indicating heat is released to the surroundings.

C) The arrow points sideways, showing no change in heat.

D) The diagram shows no energy change at all.

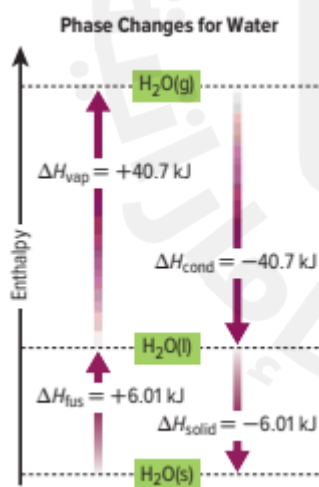
9- What does the positive value of ΔH_{rxn} indicate in an endothermic reaction?



- A) Heat is released to the surroundings.
- B) Heat is absorbed from the surroundings.
- C) There is no change in heat.
- D) The reaction is at equilibrium.

10- For which of the following processes would the enthalpy change (ΔH) be positive?

- A) Combustion of methane
- B) Vaporization of water
- C) Freezing of water
- D) Condensation of steam



11- What is the value of ΔH_{vap} for the vaporization of one mole of water?

- A) -40.7 kJ
- B) 40.7 kJ**
- C) -6.01 kJ
- D) 6.01 kJ

12- Use Equations a and b to determine ΔH for the following reaction.
 $2\text{CO}(g) + 2\text{NO}(g) \rightarrow 2\text{CO}_2(g) + \text{N}_2(g)$ $\Delta H = ?$

- a. $2\text{CO}(g) + \text{O}_2(g) \rightarrow 2\text{CO}_2(g)$ $\Delta H = -566.0$ kJ
- b. $\text{N}_2(g) + \text{O}_2(g) \rightarrow 2\text{NO}(g)$ $\Delta H = -180.6$ kJ

- A) -385.4 kJ**
- B) -566.0 kJ
- C) +385.4 kJ
- D) +180.6 kJ

13- Which of the following statements is true regarding the standard enthalpies of formation of nitrogen (N_2) and oxygen (O_2)?

- A) The standard enthalpies of formation of nitrogen and oxygen are both positive.
- B) The standard enthalpies of formation of nitrogen and oxygen are both zero.**
- C) The standard enthalpy of formation of nitrogen is zero, while the standard enthalpy of formation of oxygen is positive.
- D) The standard enthalpy of formation of nitrogen is positive, while the standard enthalpy of formation of oxygen is zero.

14- Which of the following reactions corresponds to the enthalpy of formation of $\text{NO}_2(g)$

- A) $\text{N}_2(g) + \text{O}_2(g) \rightarrow 2\text{NO}(g)$
- B) $\text{N}_2(g) + 2\text{O}_2(g) \rightarrow 2\text{NO}_2(g)$**
- C) $2\text{NO}(g) + \text{O}_2(g) \rightarrow 2\text{NO}_2(g)$
- D) $2\text{NO}_2(g) \rightarrow \text{N}_2(g) + 2\text{O}_2(g)$

Time (s)	[H ₂] (M)	[Cl ₂] (M)	[HCl] (M)
0.00	0.030	0.050	0.000
4.00	0.020	0.040	

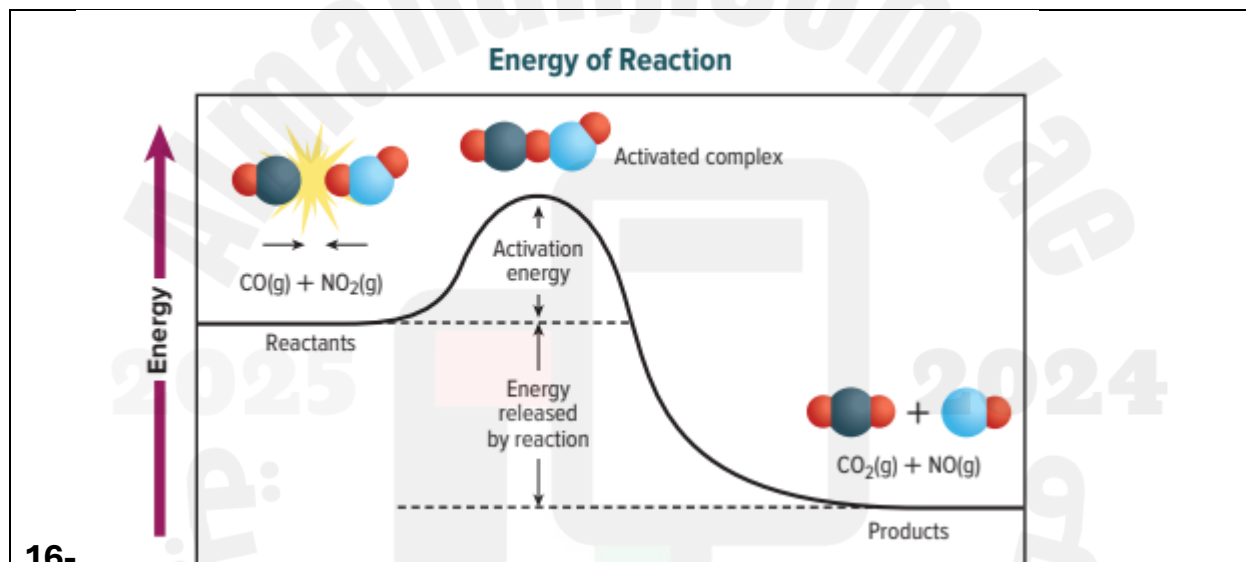
15- Calculate the average reaction rate expressed in moles H₂ consumed per liter per second.

a- -0.0025

b- 0.0025

c- 0.025

d- 0.25



a- exothermic Reaction

b- endothermic Reaction

c- ΔH

d- H of products higher than H of reactants

Trial	Initial [A] (M)	Initial [B] (M)	Initial Rate (mol/(L·s))
1	0.100	0.100	2.00×10^{-3}
2	0.200	0.100	4.00×10^{-3}
3	0.200	0.200	1.60×10^{-2}

17-

What is the order of the Reaction $A+B \rightarrow C$

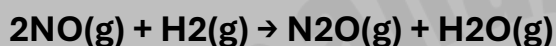
a-2

b-3

c-4

d-1

18- The following reaction is first order in H_2 and second order in NO with a rate constant of 2.90×10^2 (L²/(mol²·s)).



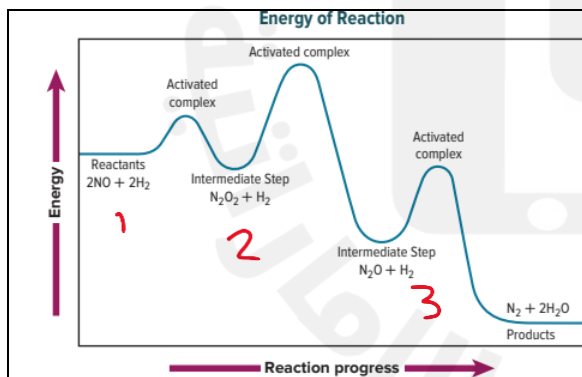
Calculate the instantaneous rate when the reactant concentrations are $[NO] = 0.00200M$ and $[H_2] = 0.00400M$

a- 4.64×10^{-6} mol/(L·s).

b- 4.64×10 mol/(L·s).

c- 4.64×10^{-5} mol/(L·s).

d- 4.54×10^{-6} mol/(L·s).



19-

a-first reaction is the slowest

b- second reaction is the slowest

c- first and second reaction are the slowest

d- third reaction is the slowest

20- Predict whether a precipitate of PbCl_2 will form if 100 mL of 0.0100M NaCl is added to 100 mL of 0.0200M $\text{Pb}(\text{NO}_3)_2$

a- A precipitate will form

b- A precipitate will not form

c- no change

d- Q_s higher than K_{sp}

