

تم تحميل هذا الملف من موقع المناهج الإماراتية



حل أوراق عمل مراجعة الوحدة الثانية الجدول الدوري والقانون الدوري باللغة الانجليزية

موقع المناهج ← المناهج الإماراتية ← الصف العاشر المتقدم ← كيمياء ← الفصل الأول ← ملفات متنوعة ← الملف

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المزيد من مادة
كيمياء:

التواصل الاجتماعي بحسب الصف العاشر المتقدم



صفحة المناهج
الإماراتية على
فيسبوك

الرياضيات

اللغة الانجليزية

اللغة العربية

التربية الاسلامية

المواد على تلغرام

المزيد من الملفات بحسب الصف العاشر المتقدم والمادة كيمياء في الفصل الأول

حل أوراق عمل مراجعة الوحدة الأولى الالكترونيات في الذرات باللغة الانجليزية

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عرض بوربوينت درس الضوء والطاقة

2

عرض بوربوينت درس خواص المركبات الأيونية

3

عرض بوربوينت درس صيغ المركبات الأيونية وأسمائها

4

عرض بوربوينت الدرس الثالث قواعد توزيع الإلكترونات في الذرة

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G10 Advanced Chemistry
Chapter 2 - Revision Sheet - Answer Key

Multiple Choice Questions.

Q1.	Identify which of the following is a metal?
a.	Germanium
b.	Oxygen
c.	Iron
d.	Fluorine

Q2.	Identify which of the following is a nonmetal?
a.	Silicon
b.	Chlorine
c.	Sodium
d.	Carbon

Q3.	Identify which of the following is a metalloid?
a.	Mercury
b.	Argon
c.	Calcium
d.	Tellurium

Q4.	Identify the corresponding group number of noble gases in the periodic table?
a.	Group 1
b.	Group 2
c.	Group 17
d.	Group 18

Q5.	Identify the corresponding group number of alkali metals in the periodic table?
a.	Group 1
b.	Group 2
c.	Group 17
d.	Group 18

Q6.	Elements in the same group of the periodic table have the same -----?
a.	Number of valence electrons
b.	Physical properties.
c.	Number of electrons
d.	Electron configuration

Q7.	Which statement is NOT true?
a.	The atomic radius of Na is less than the atomic radius of Mg.
b.	The electronegativity of C is greater than the electronegativity of B.
c.	The ionic radius of Br ⁻ is greater than the atomic radius of Br.
d.	The first ionization energy of K is greater than the first ionization energy of Rb.

Q8.	What is the group, period, and block of an atom with the electron configuration [Ar]4s ² 3d ¹⁰ 4p ⁴ ?
a.	group 14, period 4, d-block
b.	group 16, period 3, p-block
c.	group 14, period 4, p-block
d.	group 16, period 4, p-block

Use the table below to answer Q9 and Q10

Characteristics of Elements		
Element	Block	Characteristic
X	s	soft solid; reacts readily with oxygen
Y	p	gas at room temperature; forms salts
Z	—	inert gas

Q9. In which group does Element X most likely belong?

a. 1

b. 17

c. 18

d. 4

Q10. Using the table in Q9 above, find out in which block is Element Z most likely found?

a. s-block

b. p-block

c. d-block

d. f-block

Use the table below to answer Questions 11 and 12

Percent Composition By Mass of Selected Nitrogen Oxides		
Compound	Percent Nitrogen	Percent Oxygen
N ₂ O ₄	30.4%	69.6%
N ₂ O ₃	?	?
N ₂ O	63.6%	36.4%
N ₂ O ₅	25.9%	74.1%

Q11. What is the percent nitrogen in the compound N₂O₃?

a. 44.7%

b. 46.7%

c. 28.1%

d. 36.8%

Q12.	A sample of a nitrogen oxide contains 1.29 g of nitrogen and 3.71 g of oxygen. Using the table in Q11 find out which compound is this most likely to be?
a.	N_2O_4
b.	N_2O_3
c.	N_2O
d.	N_2O_5

Q13.	On the modern periodic table, metalloids are found only in
a.	the d-block.
b.	groups 13 through 17.
c.	the f-block.
d.	groups 1 and 2

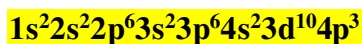
Q14.	Which group is composed entirely of nonmetals?
a.	1
b.	13
c.	15
d.	18

Q15.	It can be predicted that element 118 would have properties similar to a(n)
a.	alkali earth metal.
b.	halogen.
c.	metalloid.
d.	noble gas.

Constructed Response Questions.

Q1

a. Write the electron configuration for the element arsenic (As).



Use the table below to answer parts b and c.

Successive Ionization Energies for Selected Period 2 Elements, in kJ/mol				
Element	Li	Be	B	C
Valence e ⁻	1	2	3	4
First ionization energy	520	900	800	1090
Second ionization energy	7300	1760	2430	2350
Third ionization energy		14,850	3660	4620
Fourth ionization energy			25,020	6220
Fifth ionization energy				37,830

b. Correlate the biggest jump in ionization energy to the number of valence electrons in each atom.

It is easier to remove valence electrons from a partially filled shell. For lithium, it requires much more energy to remove the second electron than the first because the second electron is part of a completely filled outer shell. Its removal causes the atom to become unstable, and therefore requires a great deal of energy to remove.

Similarly, for beryllium, it requires much more energy to remove the 3rd electron, for boron, it requires much more energy to remove the 4th electron and for carbon, it requires much more energy to remove the 5th electron as all these removals cause the atoms to become unstable and requires a great deal of energy to remove.

c. Predict which ionization energy will show the largest jump for magnesium. Explain your answer.

Magnesium will have its largest increase in ionization energy for the third ionization energy. The first two ionization energies are how much energy it requires to remove magnesium's two valence electrons. The third ionization energy will disrupt a complete octet, and therefore requires a lot more energy.

Q2

a. Determine the group, period, and block in which each of the following elements is located in the periodic table.

a. $[\text{Kr}]5s^24d^1$ b. $[\text{Ar}]4s^23d^{10}4p^3$ c. $[\text{He}]2s^22p^6$ d. $[\text{Ne}]3s^23p^1$

- a. 3, period 5, d-block
- b. 15, period 4, p-block
- c. 18, period 2, p-block
- d. 13, period 3, p-block

b. Given any two elements within a group, is the element with the larger atomic number likely to have a larger or smaller atomic radius than the other element?

Larger

c. Table below shows the number of elements in the first five periods of the periodic table. Explain why some of the periods have different numbers of elements?

Period	1	2	3	4	5
Number of elements	2	8	8	18	18

The first energy level has only the s sublevel. The second and third energy levels have only the s and p sublevels. The fourth and fifth energy levels have s, p, and d sublevels.