Kafr El-Sheikh University Faculty of Science Chemistry Department



Suggested research topics Winter semester of the academic year 2019/2020

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أستاذ المنهج: أ. د. عبدالمطلب مسعد رمضان
الفرقة: الثانية تربية مميز
التخصص: الكيمياء

Chemistry of the Main Group Elements

The Modern Periodic Table and Features of the Periodic Table of the Elements Elements from their Latin Name Grouping of Elements Main Group Elements The 's' block elements The Main Characteristics of s-block elements The 'p' Block Elements The main characteristics of the 'p' Block Elements Hydrogen Discovery of Hydrogen Some Basic Features of Hydrogen Position of Hydrogen in the Periodic Table Some of the characteristics in which hydrogen resembles alkali metals such as Electronic configuration, electropositive character, Oxidation state, Reducing agent, Combination with electronegative elements Some of the characteristics in which hydrogen resembles halogens such as Electronic configuration, Atomicity, Electrochemical nature, Oxidation state, Ionization energy Preparation of Hydrogen Physical and Chemical Properties of Hydrogen Isotopes of Hydrogen Ortho and Para Hydrogen Atomic and Nascent Hydrogen

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Chemistry of Water

General features of water and Hydrogen bonds

The polarity of water

Water has a high specific heat.

Water is a good solvent and dissolves polar molecules and ions.

Chemical Properties of Water

Hard and Soft Water

Soft water and soap

Hard water and soap

Hard water in industry

Dangerous of hard water in water boiler

Types of hardness and their causes

Methods to Remove Temporary Hardness

Methods to Remove Permanent Hardness

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التوقيع:

Alkali metals and Alkaline earth metals

Write the general Table for each group as mentioned in the current curriculum

Talk about the raw materials of these elements

General properties

Chemical properties

Talk about the differences between the properties of the two groups

Elements of the third and fourth groups

Write the general Table for each group as mentioned in the current curriculum

Talk about the raw materials of these elements

General properties

Chemical properties

Elements of the fifth and sixth groups

Write the general Table for each group as mentioned in the current curriculum Talk about the raw materials of these elements General properties Chemical properties

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