

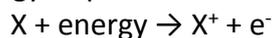
Answer on Question#41492-Chemistry-Inorganic Chemistry

Question

The ability of an element to participate in a chemical reaction is measured in form of its ...

Answer

All chemical reactions take place by moving electrons around or by exchanging electrons. So, the ability of an element to participate in a chemical reaction is measured in form of its **ionization energy**. The ionization energy of an element describes the minimum amount of energy required to remove an electron from the atom to form a positive ion:



However, ionization energy is applicable mostly to characterize reactivity of metals. When characterizing reactivity of nonmetals the **electron affinity** is more applicable. The electron affinity of an element is the amount of energy released when an electron is added to a neutral atom to form a negative ion:

