

- Identify the element which is likely to be a
- most reactive non-metal
 - a noble gas
 - most reactive metal
 - metal forming binary halide (MX_2)
- Explain why?
 - Lanthanides and actinides are placed separately in the periodic table
 - IE of Na^+ is almost double that of Ne.
 - Third period contains only 8 elements.
 - Cl^- is larger than Cl.
 - IE_2 of Na is greater than IE_2 of Mg.
 - IE_1 of B is 800kJ/mole while IE_1 of Be is 900kJ/mole.
 - $\Delta_{\text{eg}}\text{H}$ of F is less negative than that of Cl.
 - IE_1 of N is 1402kJ while that of O is 1314kJ.
 - Li & Mg resemble in many of their properties.
 - Arrange the following elements S, P, O, N in the increasing order of non-metallic character
 - What is the difference between electron gain enthalpy and electro negativity?
 - What are isoelectronic species? Name the species that will be isoelectronic with each of the following atoms or ions. (i) F^- (ii) Ar (iii) Mg^{2+} (iv) Rb^+
 - Explain why cations are smaller than corresponding atoms whereas anions are larger than their parent atoms.
 - Define ionisation enthalpy. What are the various factors due to which the ionization enthalpy of the main group elements tends to increase across a period?
 - Write the general characteristics and the outer electronic configuration of the following
 - s block elements
 - p block elements
 - f block elements
 - d block elements
 - What do you mean by screening effect?
 - To which group and period will the element with atomic number 111 belong?
 - What is the oxidation state and covalency of $[\text{Al Br}(\text{NH}_3)_5]^{2+}$?
 - What are representative elements?
 - What are
 - d block elements
 - f block elements?
 - With the help of chemical equations explain the nature of sodium oxide and Aluminium oxide.