

## S-B LOCK ELEMENTS

General Electron configuration

f2) Atomic Radii increases down the group.

(5) Hydration enthalpy decreases down the group,

14). Ionization enthalpy decreases down the group.

15). On reaction with oxygen gives oxide, peroxide and superoxide.

Is) On reaction with water produces hydroxide and hydrogen.

17). Some important compounds and their general reactions.

| Name                | Chemical Formula                                           | Prepared by                                     |
|---------------------|------------------------------------------------------------|-------------------------------------------------|
| Caustic Soda        | NaOH                                                       | Electrolysis in Castner-Kellner cell            |
| Washing Soda        | $\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$        | Solvay's process                                |
| MkIna Soda          | NaCl                                                       | Solvay's process.                               |
| Glauber's Salt      | $\text{Na}_2\text{SO}_4 \cdot 10\text{H}_2\text{O}$        | $\text{NaCl} + \text{H}_2\text{SO}_4$           |
| Microcosmic salt    | $\text{Na}_2\text{C}_2\text{O}_4 \cdot \text{H}_2\text{O}$ | $\text{NaCl} + \text{Na}_2\text{C}_2\text{O}_4$ |
| Potash of Pearl Ash | $\text{K}_2\text{CO}_3$                                    | Leblanc Process                                 |
| Caustic potash      | KOH                                                        | Electrolysis of KCl                             |
| Quick lime          | CaO                                                        | Decomposition of $\text{CaCO}_3$                |
| Slaked lime         | $\text{Ca(OH)}_2$                                          | Hydrolysis of CaO                               |
| Gypsum              | $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$                  | By heating gypsum                               |