

Group - I	Transition	Group - VII	Group - VIII
<p>→ Alkaline metals</p> <p>Li, Na, K, Rb, Cs</p> <p>→ Soft metals</p> <p>→ Store in oil</p> <p>→ low M.P, B.P</p> <p>→ low Density</p> <p>→ Chemical Reaction:</p> <p>① With <math>H_2O</math></p> $2M + 2H_2O \rightarrow 2MOH + H_2$ <p>② with <math>O_2</math></p> $4M + O_2 \rightarrow 2M_2O$ <p>③ With Halogens</p> $2M + X_2 \rightarrow 2MX$ <p>They all have 1e in last shell, They have 1+ valency</p> <p>Going down the group, reactivity is increases.</p>	<p>→ Found in between G-II to G-III</p> <p>→ high density</p> <p>→ high electricity and heat conduction</p> <p>→ Used as Catalyst</p> <p>→ Formed Coloured compound</p> <p>→ Variable Oxidation</p> <p>→ high M.P and B.P</p> <p>→ Strong metal</p> <p>→ They are ductile, malleable and sonorous.</p>	<p>→ Halogens</p> <p>→ Diatomic Gases</p> <p>↓</p> <p>Molecular Gases</p> <p>→ <math>F_2, Cl_2, Br_2, I_2</math></p> <p>↓      ↓      ↓</p> <p>White    yellow    Brown</p> <p>↓      ↓      ↓</p> <p><math>F_2, Cl_2</math> → Gaseous</p> <p><math>Br_2</math> → Liquid</p> <p><math>I_2</math> → Solid</p> <p>They have 7e's in last shell</p> <p>They have valency of 1-</p> <p>Down the group, reactivity will be decreases</p> <p>Reaction with Group-I</p> $2M + X_2 \rightarrow 2MX$ <p>↓      ↓</p> <p>G-I    G-VII</p>	<p>→ Noble gases</p> <p>→ Zero group</p> <p>→ Inert gases</p> <p>→ Monoatomic Gases</p> <p>→ They have 8e's in last shell.</p> <p>→ He → weather balloons</p> <p>→ Ne → fancy light</p> <p>→ Ar → Bulbs to give inert atmosphere</p>