

JEE CHEMISTRY

Topic : S-Block

- Correct order of density is –
(1) $\text{Li} > \text{Na}$ (2) $\text{K} > \text{Na}$
(3) $\text{Mg} > \text{Ca}$ (4) $\text{Cs} < \text{Rb}$
- Which is having highest m.p. –
(1) Be (2) Mg (3) Ca (4) Sr
- Weak reductant in alkali metal is –
(1) Li (2) Na (3) K (4) Cs
- The metal used in photoelectric cell is –
(1) Na (2) K (3) Mg (4) Ca
- Lithium chloride is highly soluble in –
(1) C_6H_6 (2) H_2O (3) D_2O (4) All
- Which metal will not form superoxide –
(1) Li (2) Be (3) Na (4) All
- More stable hydride is –
(1) Cs – H (2) Rb – H
(3) K – H (4) Li – H
- In which compound hydrogen is electronegative –
(1) CaH_2 (2) CH_4 (3) HCl (4) All
- Be shows diagonal relationship with –
(1) Li (2) Mg
(3) Al (4) Ba
- Which of the following metal will give apple green colour on Bunsen flame –
(1) Ba (2) Sr
(3) Ca (4) K
- The density of –
(1) $\text{Na} > \text{K}$ (2) $\text{Na} = \text{K}$
(3) $\text{K} > \text{Na}$ (4) $\text{Li} > \text{K}$
- Alkali metals salts are –
(1) Diamagnetic and coloured
(2) Diamagnetic and colourless
(3) Paramagnetic and coloured
(4) Paramagnetic and colourless
- Alkali metals show –
(1) Only + 1 oxidation state
(2) Only – 1 oxidation state
(3) + 1 and +2 oxidation states
(4) –1 and –2 oxidation states
- Ionic conductances of hydrated M^+ ions are in the order –
(1) $\text{Li}^+(\text{aq}) > \text{Na}^+(\text{aq}) > \text{K}^+(\text{aq}) > \text{Rb}^+(\text{aq}) > \text{Cs}^+(\text{aq})$
(2) $\text{Li}^+(\text{aq}) > \text{Na}^+(\text{aq}) < \text{K}^+(\text{aq}) < \text{Rb}^+(\text{aq}) < \text{Cs}^+(\text{aq})$
(3) $\text{Li}^+(\text{aq}) > \text{Na}^+(\text{aq}) > \text{K}^+(\text{aq}) > \text{Rb}^+(\text{aq}) < \text{Cs}^+(\text{aq})$
(4) $\text{Li}^+(\text{aq}) < \text{Na}^+(\text{aq}) < \text{K}^+(\text{aq}) < \text{Rb}^+(\text{aq}) < \text{Cs}^+(\text{aq})$
- Which of the following halides has the highest melting point –
(1) NaCl (2) KCl
(3) NaBr (4) NaF
- Which of the following does not give an oxide on heating –
(1) MgCO_3 (2) Li_2CO_3
(3) ZnCO_3 (4) K_2CO_3
- When heated in steam, Mg burns brilliantly producing –
(1) $\text{Mg}(\text{OH})_2$ (2) MgO and H_2
(3) MgO and O_2 (4) MgO and O_3
- A blue coloured solution of sodium in liquid NH_3 acts as strong reducing agent, because –
(1) of ammoniated sodium
(2) Ammonia dissociates
(3) Sodium nitride is formed
(4) of ammoniated electron
- When magnesium ribbon is heated to redness in an atmosphere of nitrogen and subsequently cooled with water, the gas evolved is –
(1) N_2 (2) NH_3 (3) O_2 (4) CO_2
- The hydration energy of Mg^{+2} is greater than that of
(1) Na^+ (2) Be^{+2} (3) Al^{+3} (4) All
- Alkali metal-liquid ammonia solution are blue due to the –
(1) Solvated electron (2) Solvated proton
(3) Solvated NH_2^- ion (4) Solvated Na^+ ion
- Molten potassium chloride conduct electricity due to the presence of –
(1) Free electron
(2) Free ions
(3) Free molecules
(4) Atom of potassium & chloride

23. Which of the following element have maximum tendency to form complex compound –
 (1) Be (2) Ba (3) Ca (4) Mg
24. On heating sodium metal in the current of dry ammonia leads to the formation of which gas–
 (1) NaNH_2 (2) NaN_3 (3) NH_3 (4) H_2
25. The degree of hydration down the group from Li^+ to Cs^+ –
 (1) Decrease (2) Increase
 (3) Remain same (4) None of these
26. The reactivity of IA elements is due to –
 (1) Low I.P.
 (2) Large atomic size
 (3) Low heat of atomization
 (4) All the above
27. The metal not found in the native state is –
 (1) K (2) Cu (3) Ag (4) Au
28. The property of Be resembles with –
 (1) Mg, Al (2) Li, Al (3) Na, Mg (4) K, Ca
29. In barium hydride, hydrogen is –
 (1) Electro positive (2) Electro negative
 (3) Neutral (4) None of these
30. Sodium reacts with water more vigorously than lithium because it –
 (1) Has higher atomic weight
 (2) Is more electronegative
 (3) Is more electropositive
 (4) Is a metal

ANSWER KEY

Que.	1	2	3	4	5	6	7	8	9	10
Ans.	3	1	2	2	1	4	4	1	3	1
Que.	11	12	13	14	15	16	17	18	19	20
Ans.	1	2	1	4	4	4	2	4	2	1
Que.	21	22	23	24	25	26	27	28	29	30
Ans.	1	2	1	4	1	4	1	1	2	3