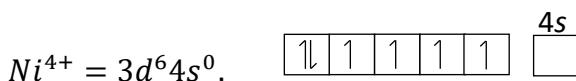
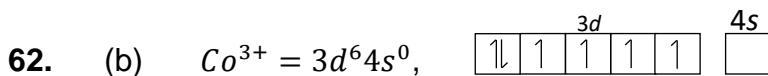


Electrovalent bonding

61. (a) Due to greater electronegativity difference.



63. (b) Lattice energy

Explanation:

Lattice energy is the amount of energy required to separate one mole of an ionic solid into its gaseous ions. It represents the **strength of the forces holding the ions together** in the crystal lattice.

During dissolution, ions must be separated from the solid lattice — this process requires **energy equal to the lattice energy**. Hence, lattice energy **opposes the dissolution** of the solute in a solvent.

Dissolution occurs only when the **hydration energy** released is **greater than or equal to** the lattice energy.

64. (d) $BaCl_2$ contain higher ionic character.

65. (b) Least lattice energy

Explanation:

Ionic compounds have **very high lattice energy** because of the strong **electrostatic forces of attraction** between oppositely charged ions. Therefore, the statement “least lattice energy” is **not true** for ionic compounds.

They generally have:

- **High melting and boiling points** due to strong ionic bonds.
- **Low solubility in organic solvents** (like benzene or ether).





CHEMICAL BONDING

IIT-JEE CHEMISTRY

- **Good solubility in water**, a polar solvent that can separate ions effectively.
66. (a) Electrolytes are compound which get dissociated into their ion in water so it contains electrovalent bond.
67. (abc) CaH_2 , BaH_2 , SrH_2 are ionic hydride.
68. (bcd) Generally $MgCl_2$, $SrCl_2$, $BaCl_2$ are ionic compounds so they conduct electricity in fused state.

