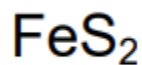


(Ionic bonding and ionic compounds)

Q1. (2018)



Q2. (2020)

- (both) carbon dioxide and silicon dioxide are made up of atoms
- (but) magnesium oxide is made up of ions
- (both) silicon dioxide and magnesium oxide are giant structures
- (but) carbon dioxide is small molecules
- with weak intermolecular forces
- all three compounds have strong bonds
- (both) carbon dioxide and silicon dioxide are formed from two non-metals
- (so) bonds formed are covalent
- (so) electron (pairs) are shared (between atoms)
- (but) magnesium oxide is formed from a metal and a non-metal
- (so) bonds in magnesium oxide are ionic
- (so) electrons are transferred
- from magnesium to oxygen
- two electrons are transferred
- bonds in silicon dioxide are single bonds
- (where) each silicon forms four bonds
- (and) each oxygen forms two bonds
- (but) in carbon dioxide the bonds are double bonds
- (where) carbon forms two double bonds
- (and) oxygen forms one double bond

ignore properties e.g. melting point, electrical conductivity

Q3. (2021)



Q4. (2021)

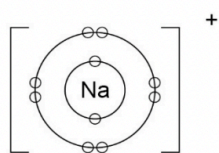
sodium ion structure 2,8

fluoride ion structure 2,8

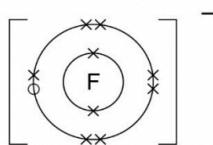
+ charge on sodium ion **and**

– charge on fluoride ion

an answer of



sodium ion



fluoride ion

Q5.(2022)

ionic

Q6.(2022)

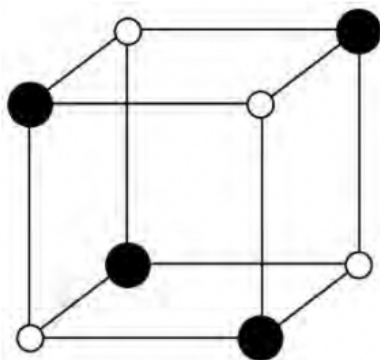
magnesium (atom) loses
electrons

oxygen (atom) gains electrons

two electrons (are transferred)

magnesium ions **and** oxide ions
are formed

Q7. (2023)



Q8.(2024)

evidence of the outer electron
on the potassium atom moving
to leave a potassium ion with no
outer electrons

chloride ion with eight outer
electrons

an answer of

