

## Answer on Question #57513 – Chemistry - Inorganic Chemistry

### Question:

Which is correct for Gp.14 elements :-

- (1) Stability of dihalides  $CX_2 < SiX_2 < GeX_2 < PbX_2 < SnX_2$
- (2) Tendency of catenation increases down the group
- (3) They all form oxides with formula  $M_2O_2$
- (4) Acidic strength of dioxide regular decrease

### Answer:

The correct answers are: 1) and 4).

- 1) Metallic character increases down the group therefore stability of element having valence two increases.
- 2) This is incorrect, because the stability of p-p interactions between atoms decreases down the group. Orbitals having high azimuthal quantum number form weak interatomic bond.
- 3) Only Ge can form that oxide.
- 4) Acidic strength of dioxide decreases, because metallic character of elements increases down the group.