Answer on Question #54371 - Chemistry – General Chemistry

Question

Explain the shape of BeF_2 molecule based on the hybridization concept and VSEPR theory.

Answer:

In BeF_2 molecule the central atom (Be) has 2 electrons on its outermost electron shell. These electrons form bonds between Be atom and F atoms. There are no lone pairs of electrons in Be atom, so bonds are oriented so that to minimize the repulsion between electrons in the outer shell, i.e. they are oriented in the opposite directions. That's why the shape of BeF_2 is linear, and the angle between bonds in it is 180^o: