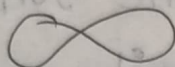
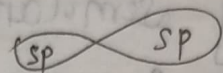
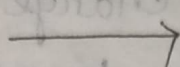


2s

+



2p_x

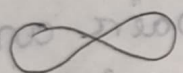


2-sp-hybrid orbital

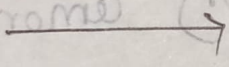
In Be-atom one ~~is~~ 2s and one 2p orbital
over to give two resultant equivalent sp-hybrid
orbital of equivalent energy.

All the 2 orbitals contain one e⁻ each.

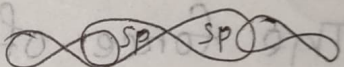
F - 1s² 2s² 2p_x¹ 2p_y¹ 2p_z¹



+ 2f

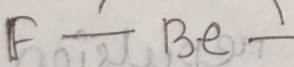


2p_z



2p_z

2-sp-hybrid orbital



sp-p (σ -bond)

Half filled 2p_z orbital of two F-atom get overlap
with half filled sp hybrid orbital of Be atom to
form sp-p (σ -Bond)

In BeF₂ molecule bond angle equal to 180°

and the shape of BeF₂ molecules is linear.