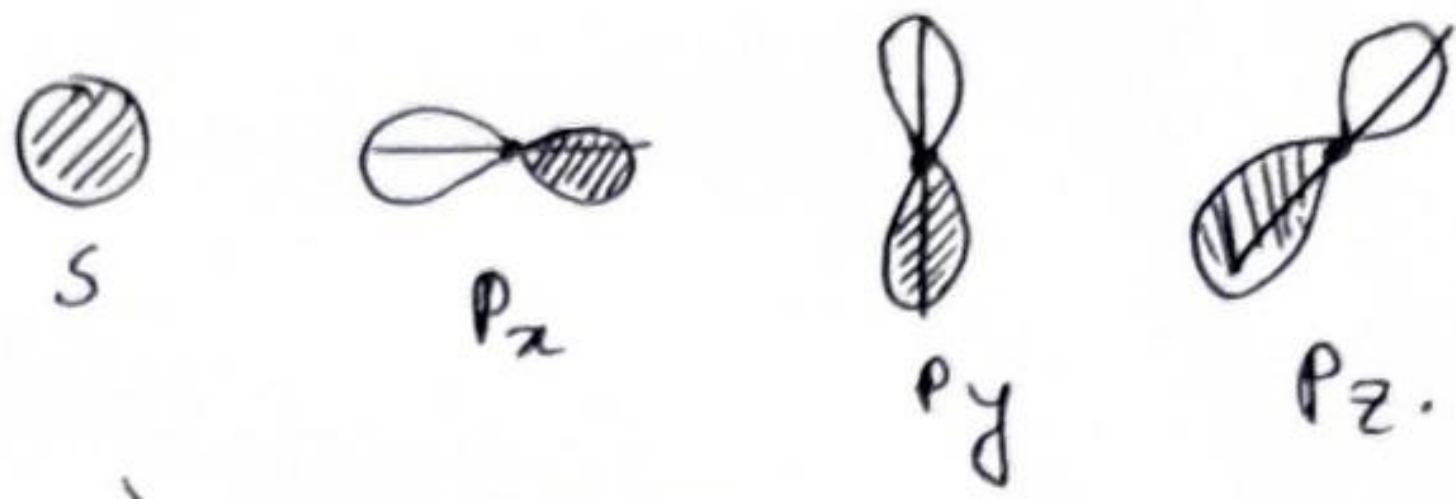


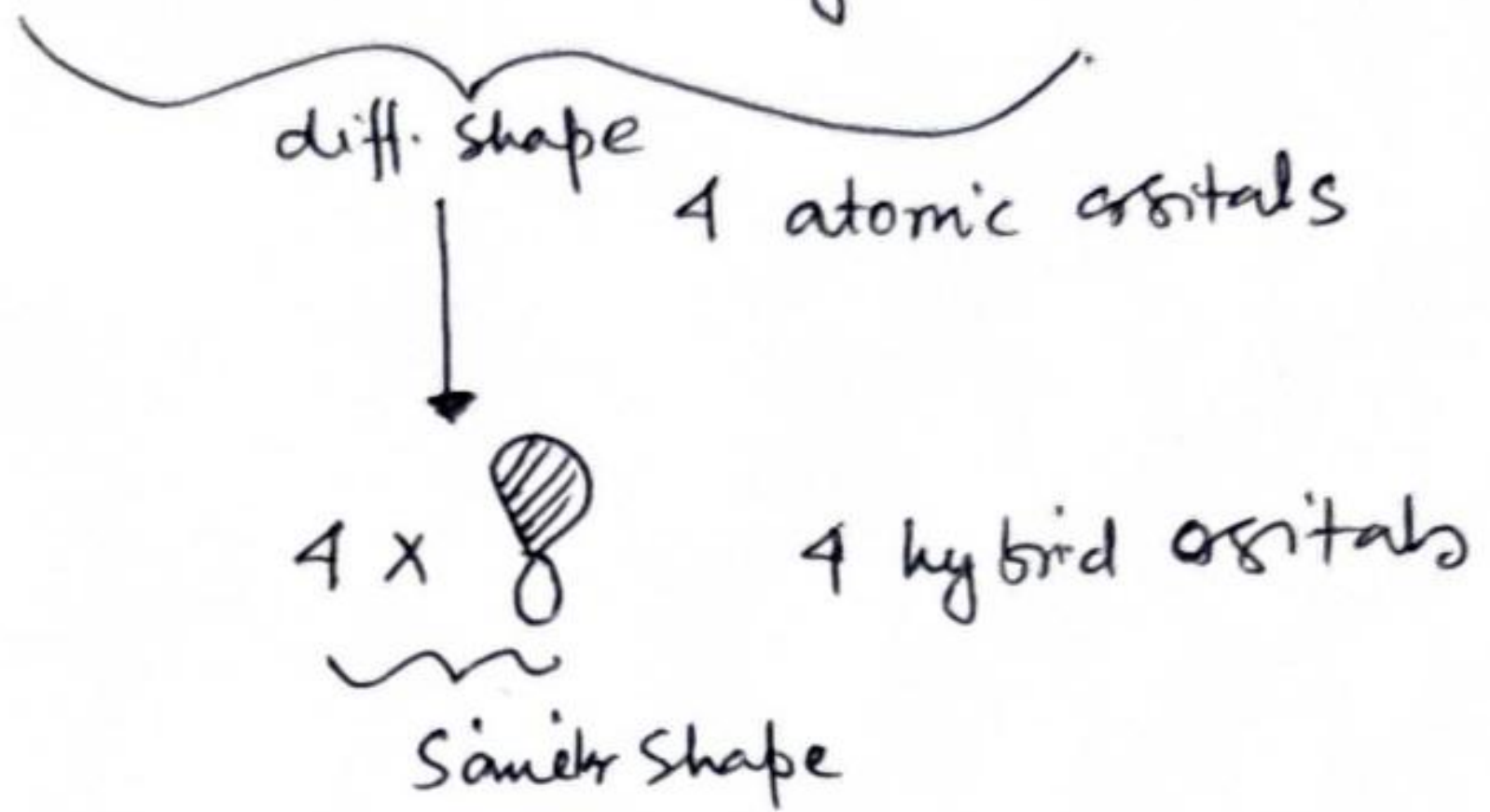
Hybridization

Hybridization is a mixing of two or more atomic orbitals to form some number of hybrid orbitals with similar energies and shape.

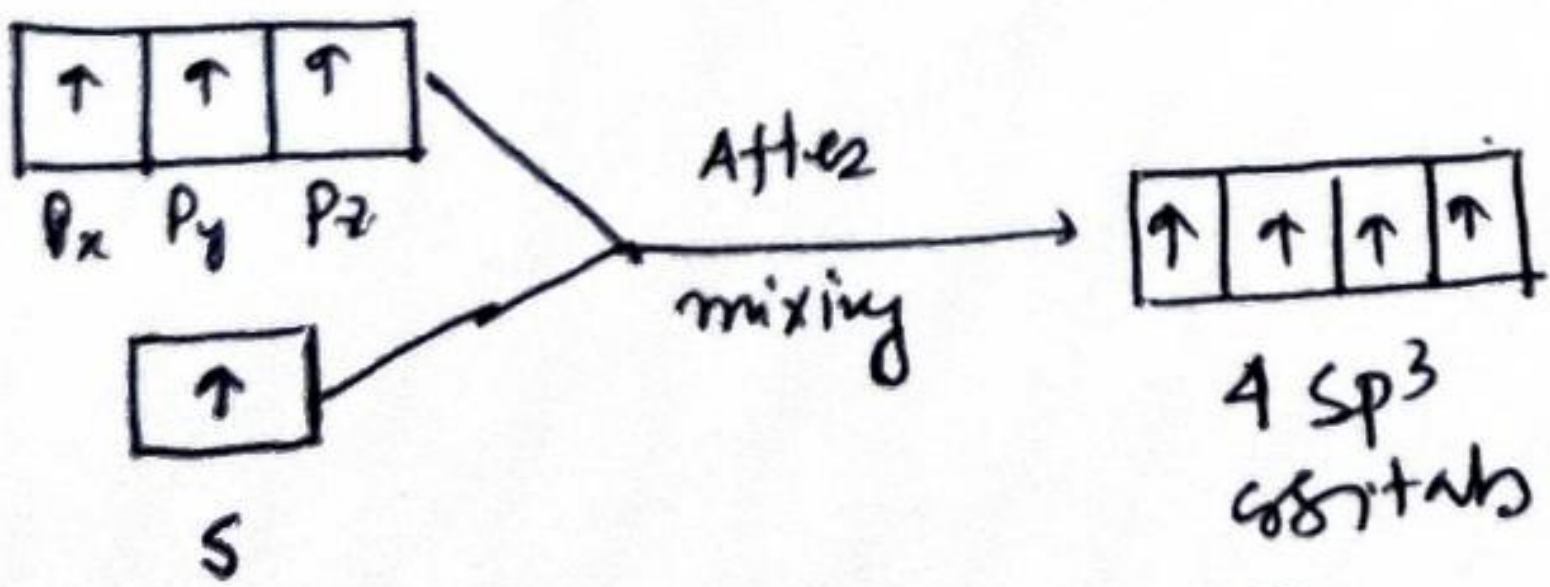
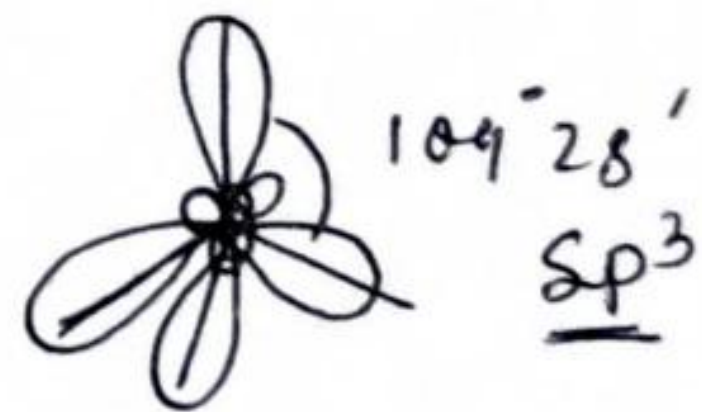
atomic orbitals:



sp^3 :



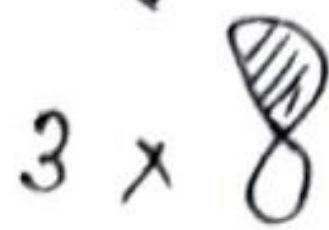
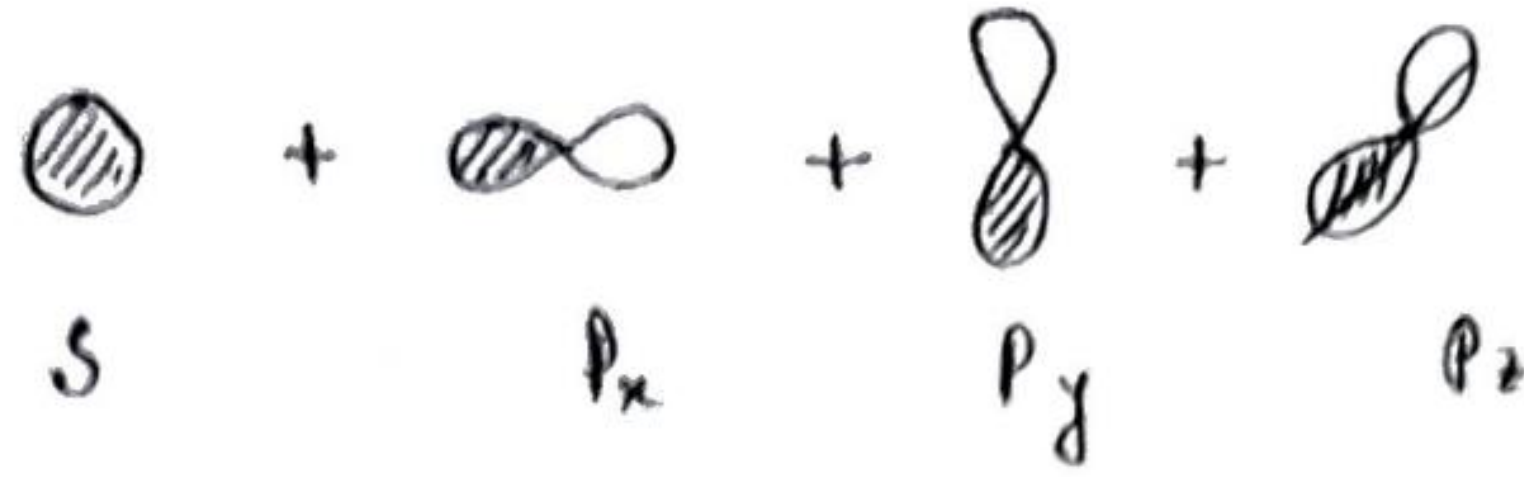
4 hybrid orbitals are rearranged in such way that electrostatic force of ~~at~~ repulsion \rightarrow minimum



↑
equal energy.



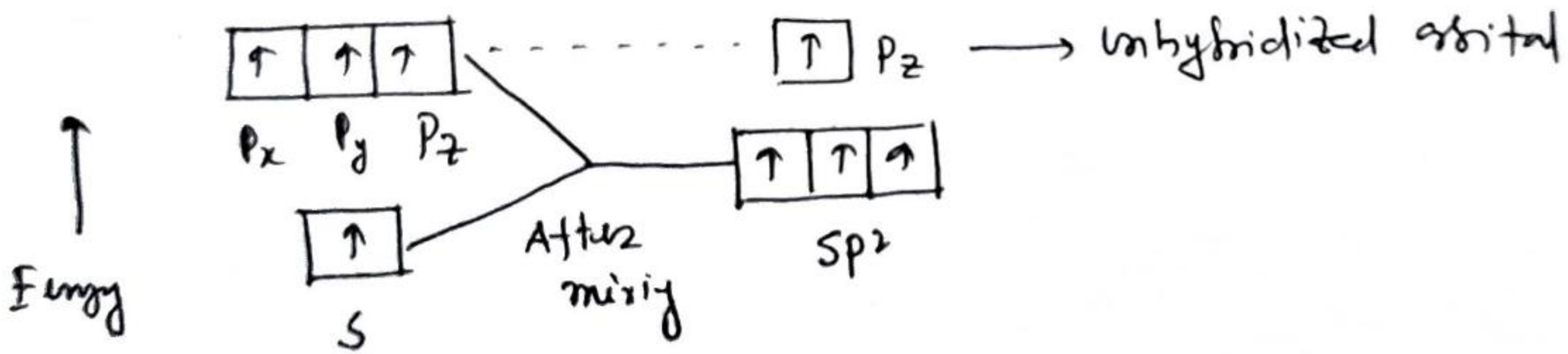
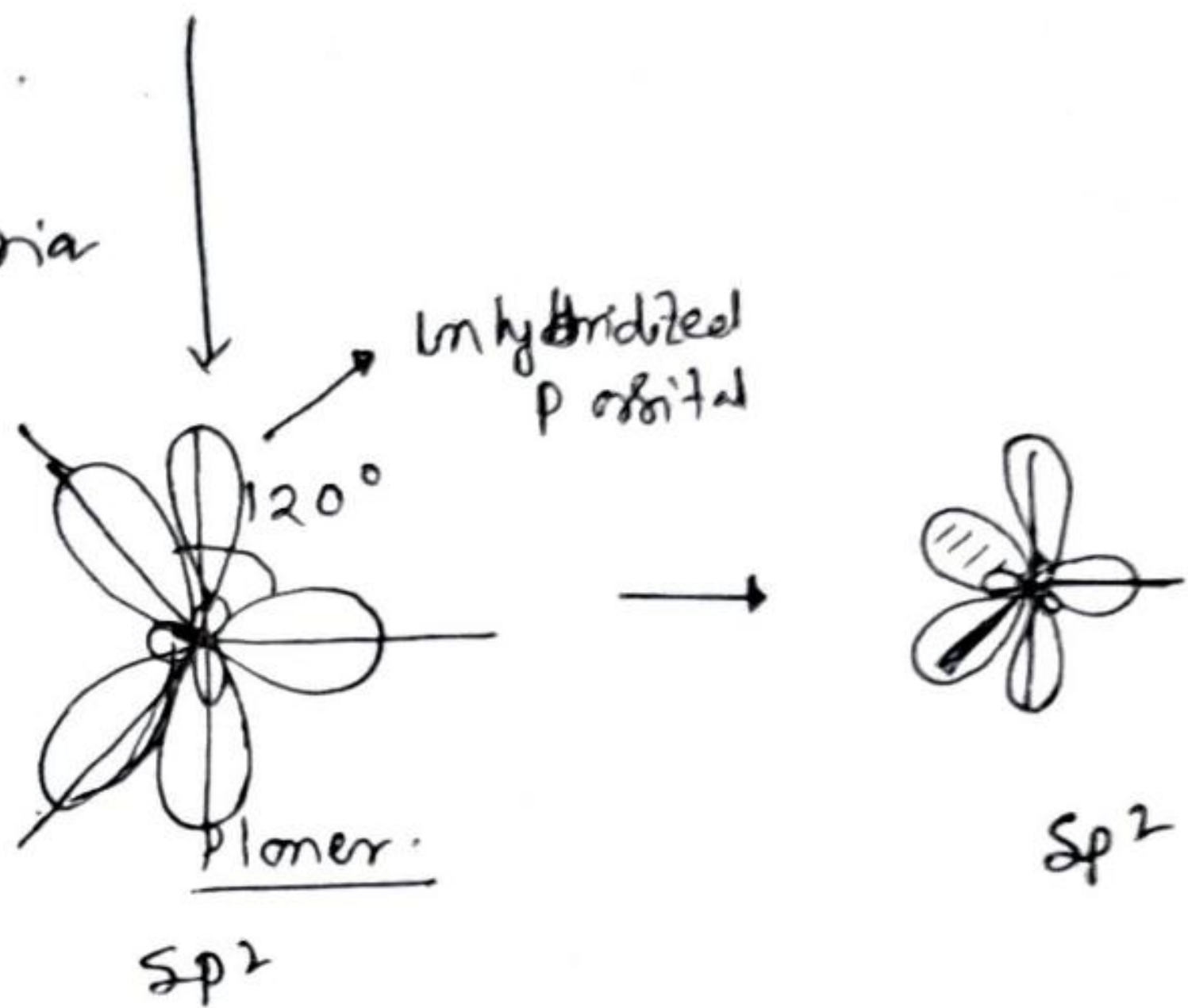
sp²:



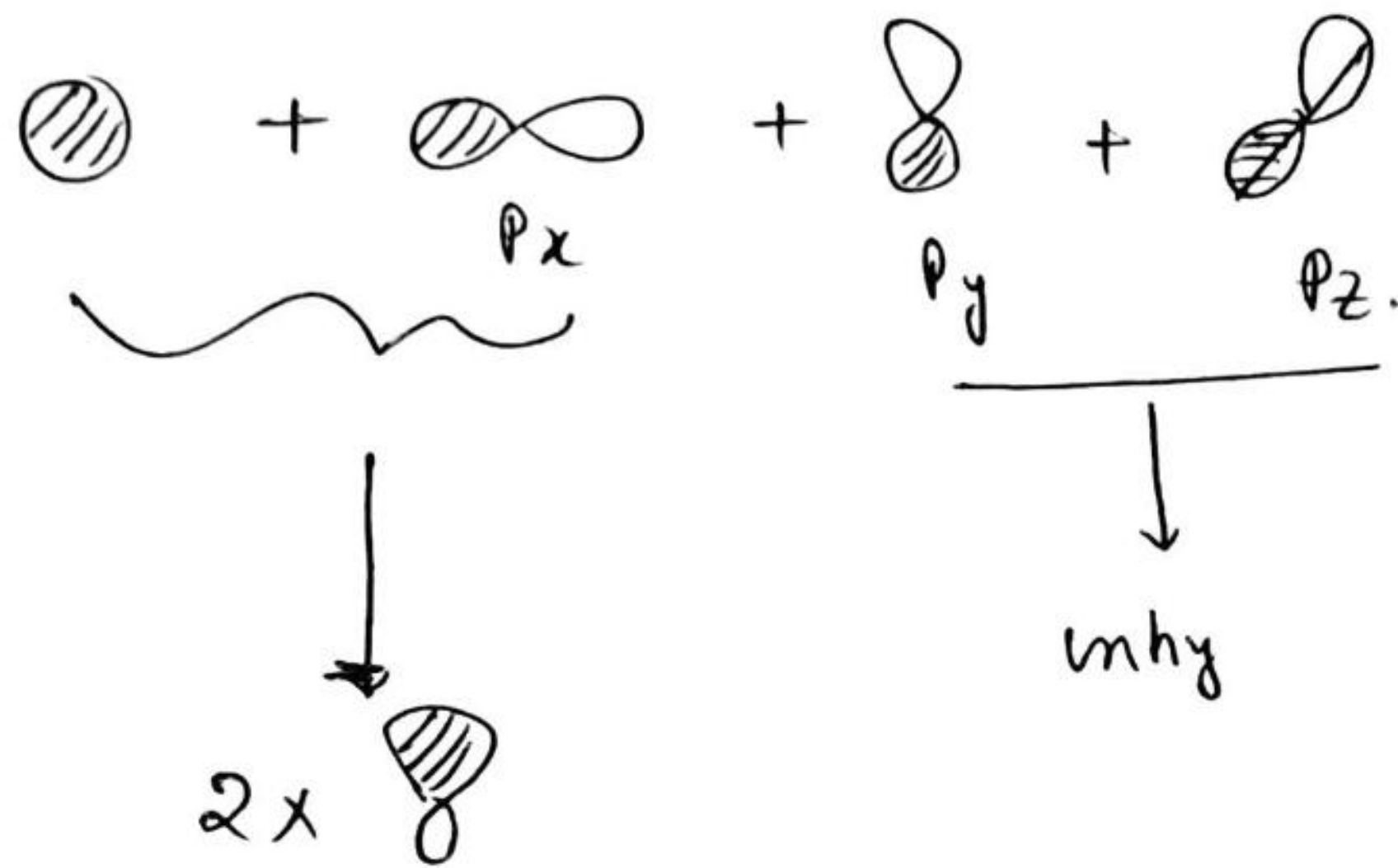
it is unhybridized

three hybrid orbital are rearranged in such a way that electrostatic force of repulsion is minimum.

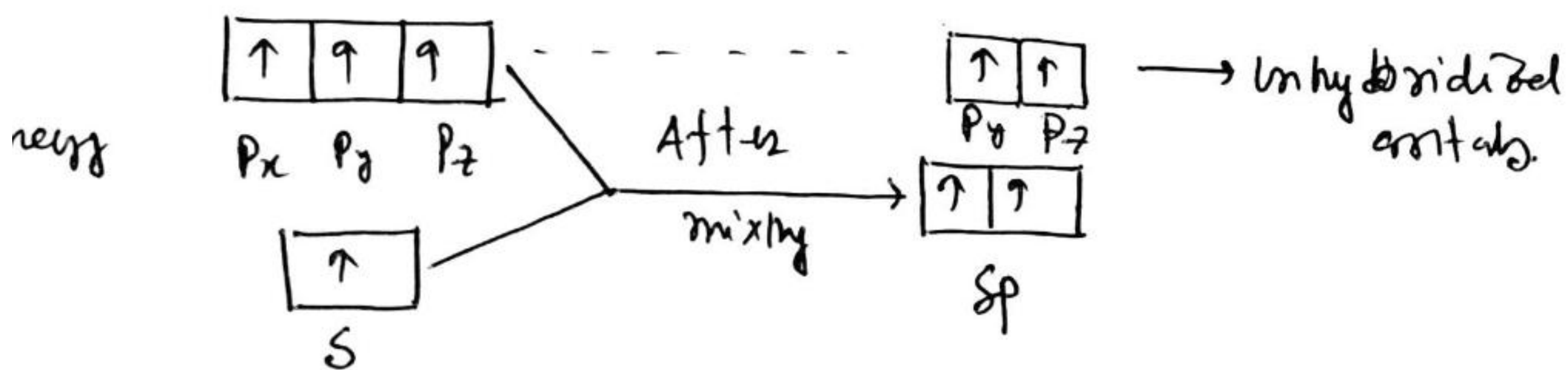
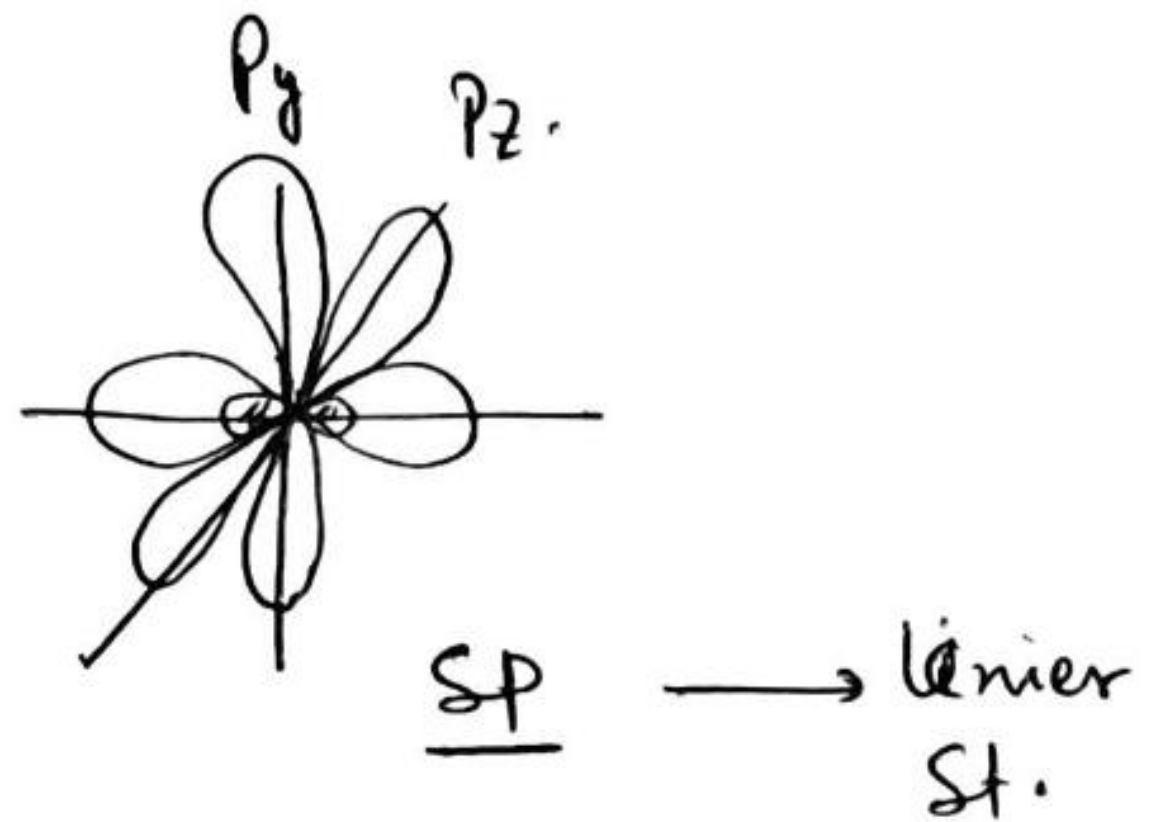
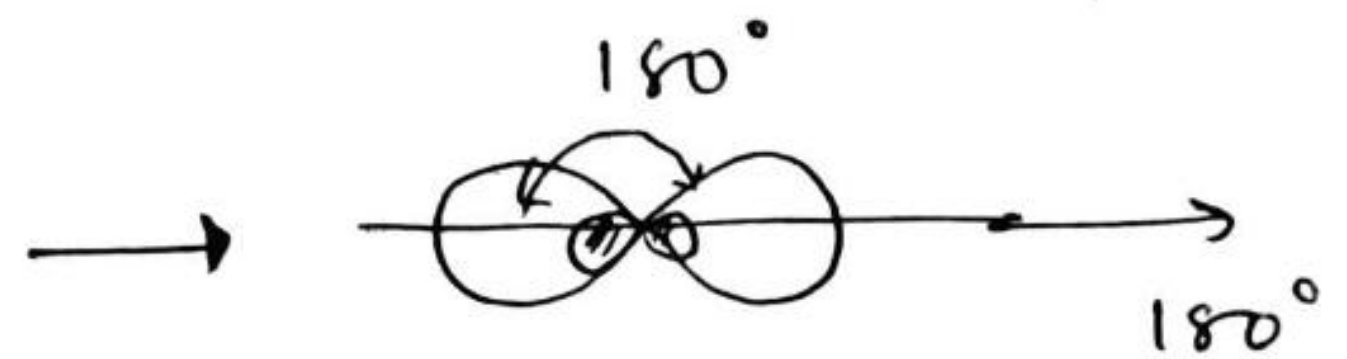
Bond angle: 120°



SP:



Two hybrid orbitals are rearranged in such a way that electrostatic force of repulsion is minimum



		Bond angle
SP ³	→ Tetrahedral	→ 109° 28'
SP ²	→ Planar	→ 120°
SP	→ Linear	→ 180°