## **Orbital Sets for Hybridized Row 2 Atoms**

Atom's Hybridization	Orbital Sets				Geometry
unhybridized	s (spherical)	P (two equal lobes)	P (two equal lobes)	P (two equal lobes)	
sp³ (four sp3 orbs)	sp <sup>3</sup> (one lobe larger than the other)	sp <sup>3</sup> (one lobe larger than the other)	sp <sup>3</sup> (one lobe larger than the other)	sp <sup>3</sup> (one lobe larger than the other)	Tetrahedral (109.5 °)
sp <sup>2</sup> (three sp2 orbs and one p orb)	sp <sup>2</sup> (shorter/rounder than sp <sup>3</sup> )	sp <sup>2</sup> (shorter/rounder than sp <sup>3</sup> )	sp <sup>2</sup> (shorter/rounder than sp <sup>3</sup> )	P (Π bond or lone pair)	Tri. Planar (120°)
sp (two sp orbs and two p orbs)	sp (shorter/rounder than sp <sup>2</sup> )	sp (shorter/rounder than sp <sup>2</sup> )	P (Π bond or lone pair)	P (Π bond or lone pair)	Linear H—С <u>=</u> С−Н (180 °)