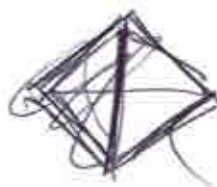


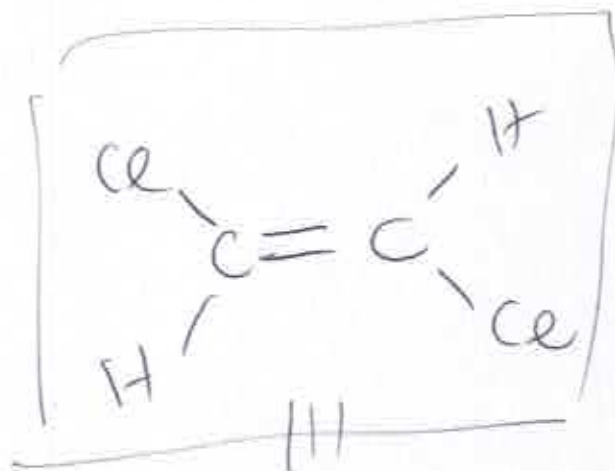
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C_{3v}



C_{4v}

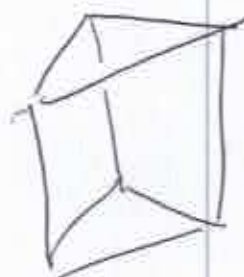


in plane of paper contains all of the atoms of the molecule



C_{2h}

eclipsed ethane



D_{3h}

staggered ethane



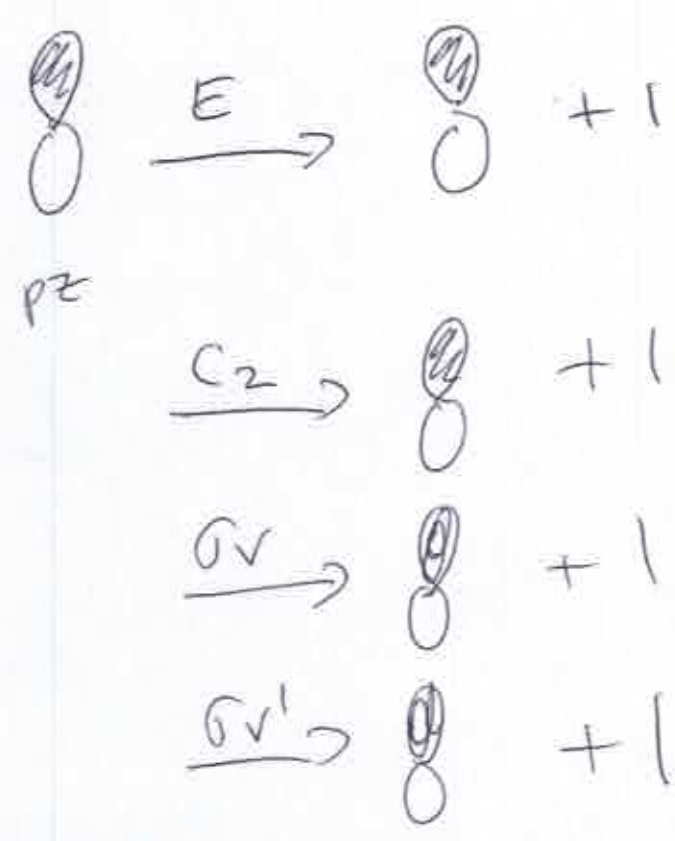
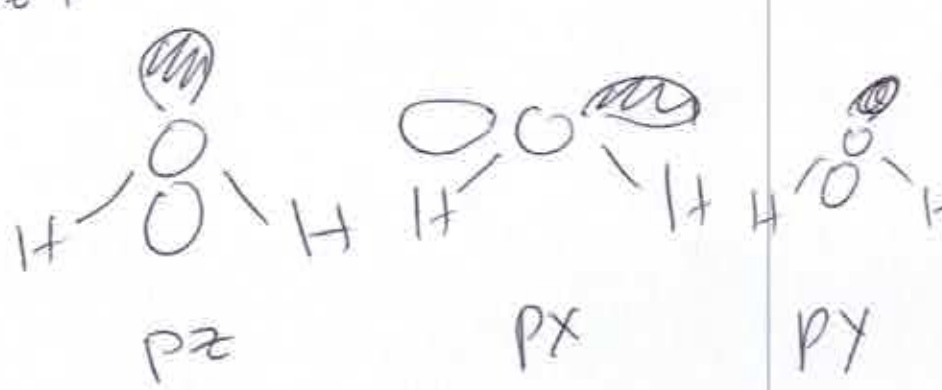


C_{2v}

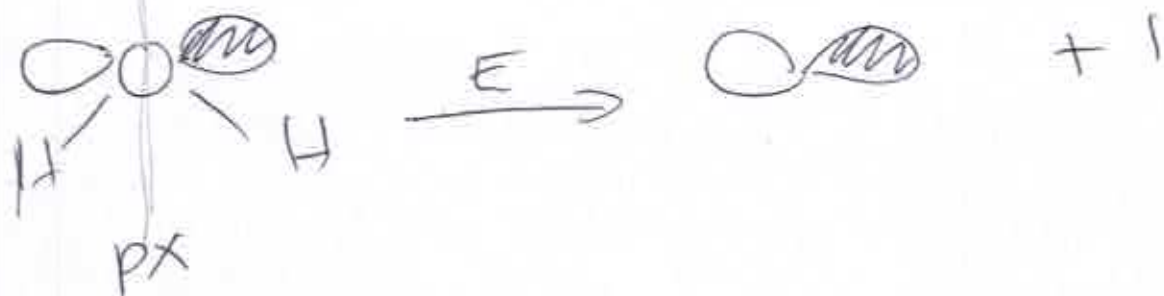
C_2, σ_v, σ_v'

σ_v
↑
xz plane

σ_v'
↓
yz plane



(looks the same before and after symmetry operation
→ symmetric)



(antisymmetric)
~~product~~ inverse
 product is inverse
 of starting configuration

