



# Molecular Visualization

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# MolMol

- Objects defined within MolMol:
  - Molecule
    - Name, number
  - Residue
    - Name, number
  - Atom
    - name
  - Bond
    - Atom1, atom2
  - Angle
    - name
  - Prim
    - number
- Backbone (bb)
- Heavy atoms (heavy)
- Everything (all)
- Current selection (selected)



# MolMol Operations

- Load and view molecule in different modes.
- Manipulate point of view, rotations, stereo, etc.
- Select various components, residue, atom, bond, angle, etc.
- Create user defined macros.
- Calculate missing atoms.
- View distances, violations, energy potentials.

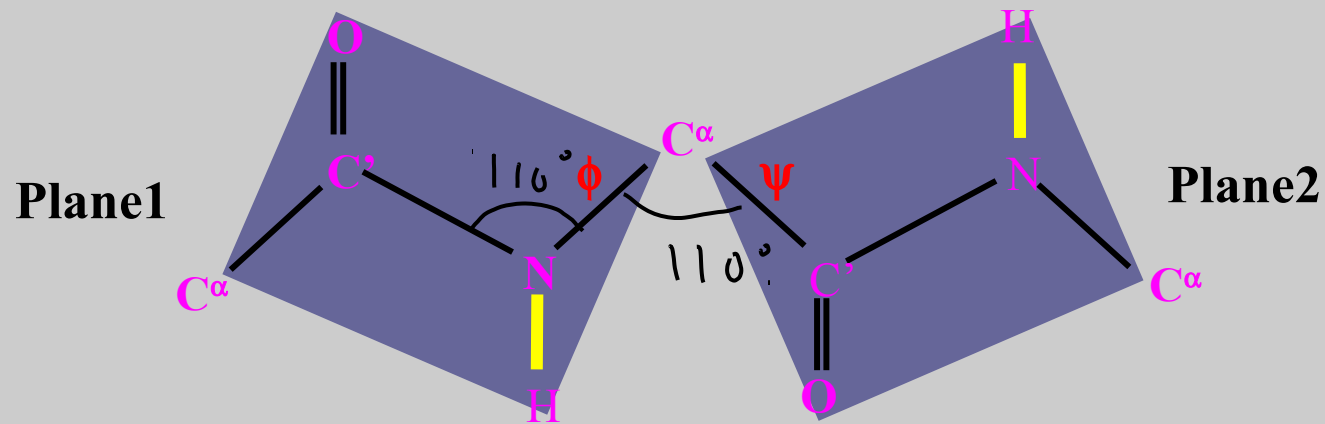
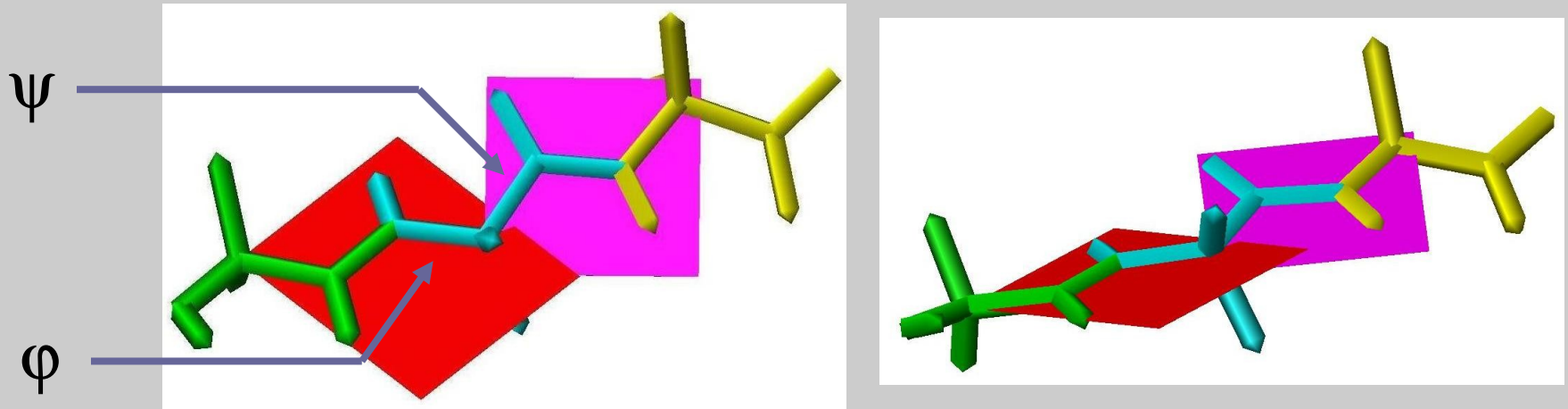


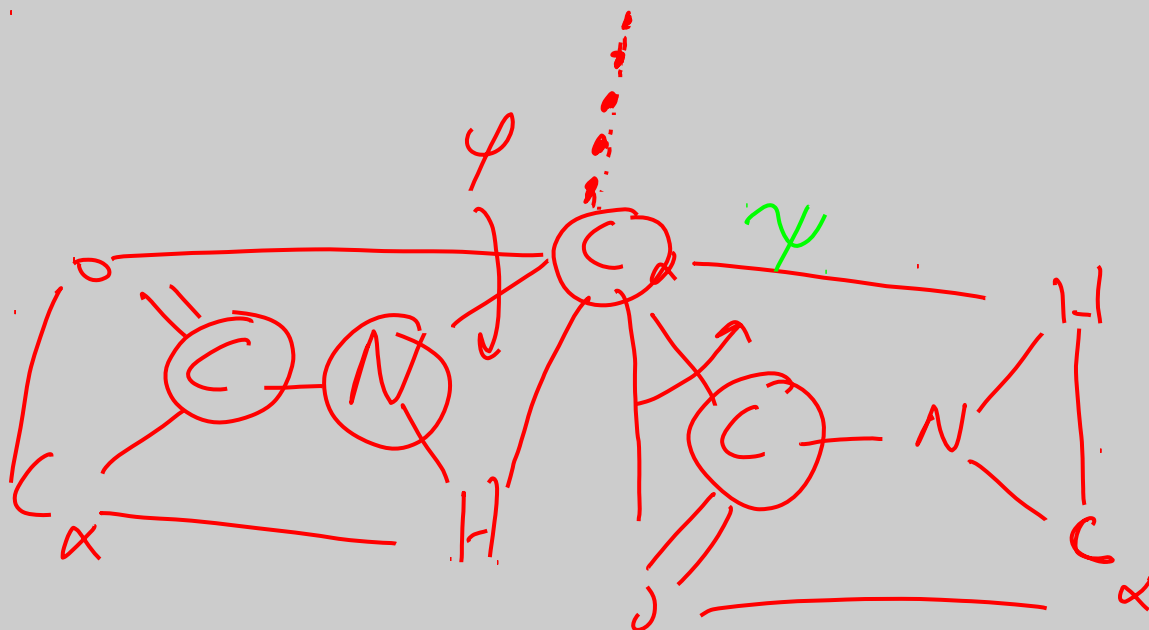
# Peptide Plane

- Induced by sharing of electrons between some backbone atoms.



# Peptide Plane





$\phi$  (C, N, C<sub>α</sub>, C')