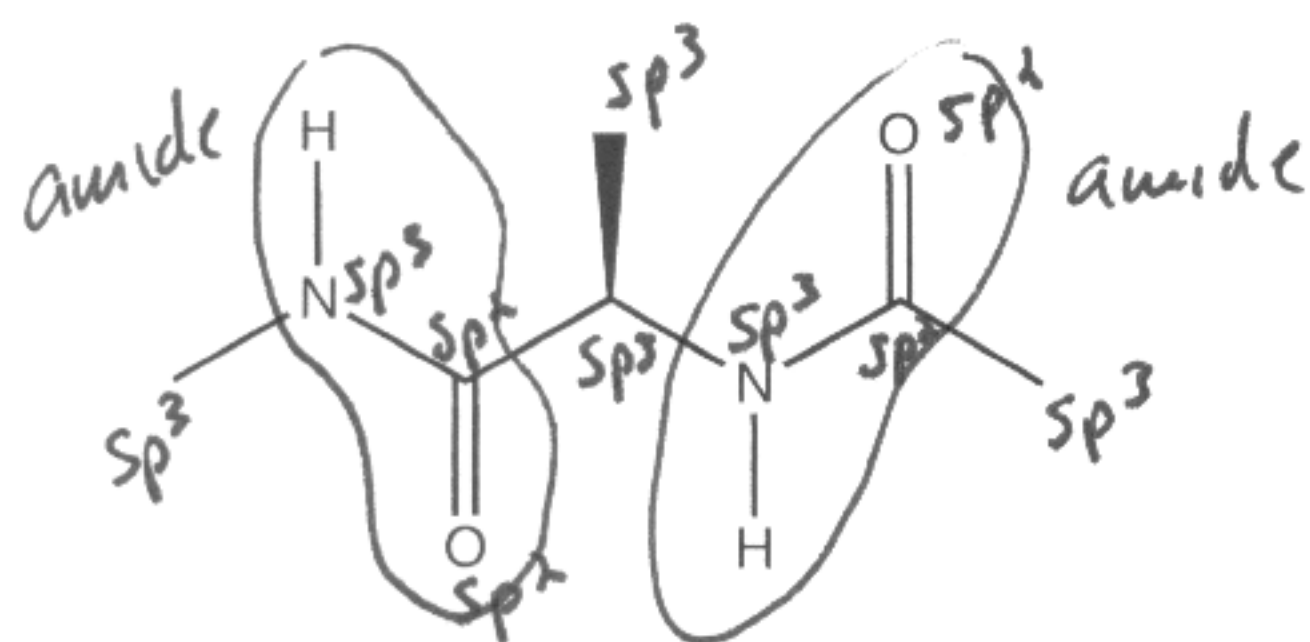


CH301H – Principles of Chemistry I: Honors  
Fall 2011, Unique 51040

Quiz 5

Alanine is one of the 20 natural amino acids. The molecule formed from two alanines, called alanine dipeptide, is a common model system for understanding the structure of significantly more complex polypeptides (many peptides, i.e. proteins). The structure of alanine dipeptide is shown below:



- Identify each functional group. ✓
- Identify the hybridization at each C, O, and N atom. ✓
- Draw a resonance structure(s) of alanine dipeptide. ✓
- What does your resonance structure(s) tell you about the 3 dimensional geometry of the molecule?

