

- Seebach developed a clever way to alkylate amino acids while retaining the enantiomeric purity of the starting material. The kinetic selectivity of the final alkylation is directly dependant on the thermodynamic stability of the intermediates. Rationalize the chosen thermodynamic product with a 3D drawing and use it to explain the later kinetic selectivity in the sequence. However, in order to generate the bicyclic intermediate necessary for the sequence, you must first identify **X** from the nmr spectra below!



