

Group Meeting Problem – April 21, 2008

I thought it might be interesting to tackle a different sort of problem this week. For the most part, we've been focusing on the "forward direction" – i.e. transformations, reagents to accomplish these transformations, and their associated mechanisms. However, as synthetic chemists, we also need to be able to cut molecules apart: the concept of retrosynthetic analysis.

Therefore, I propose that we use this last meeting to discuss the retrosynthesis of the compound below. Please try and refrain from dropping the structure into Scifinder to find papers related to its synthesis. The purpose of this exercise isn't to rehash what's been done in the past: it's really to draw upon our collective creativity to cut this molecule apart and perhaps learn something about retrosynthetic analysis - myself included!

The objectives of this exercise are to: 1) suggest bonds to cut *with reasoning*; 2) for the bonds being broken suggest transformations that would take the synthesis in the forward direction. Don't bother with protecting group strategies – the focus should be cutting the compound apart and then suggest ways to build it back up.

