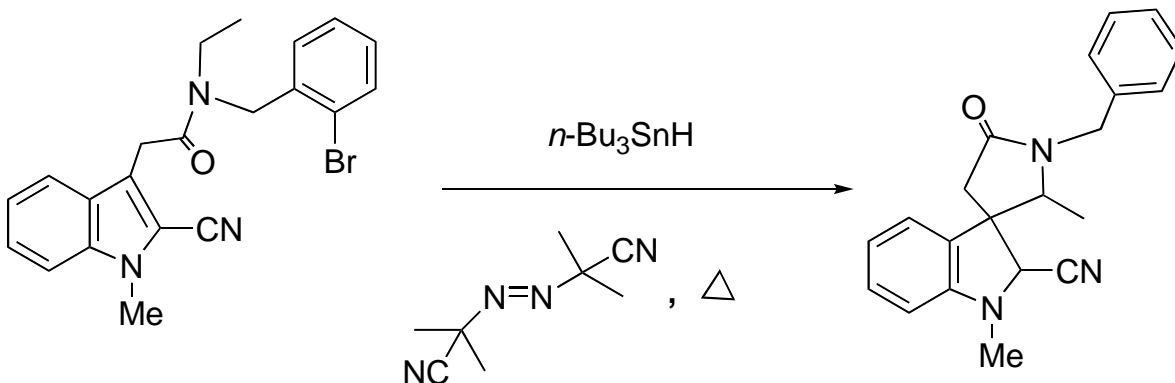


1. The reaction shown below is a key step in a recently-reported synthesis of the spiropyrrolidinyloxindole skeleton, a structure that occurs in a number of alkaloids that have potential use in medicine. Provide a reasonable mechanism, including proper use of curved arrow formalism, that shows how the transformation occurs. Show all products and byproducts.



2. The reaction shown below is one of a number of examples of a recently-reported synthesis of quinolines and isoquinolines from *o*-alkynyl or *o*-cyano isocyanobenzenes. Use curved arrow formalism to illustrate a reasonable possibility for how the transformation occurs.

