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.

![Reaction 1](image1.png)

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.

![Reaction 2](image2.png)
\[
\text{Et}_2\text{NH, K}_2\text{CO}_3 \quad \text{room temperature}
\]