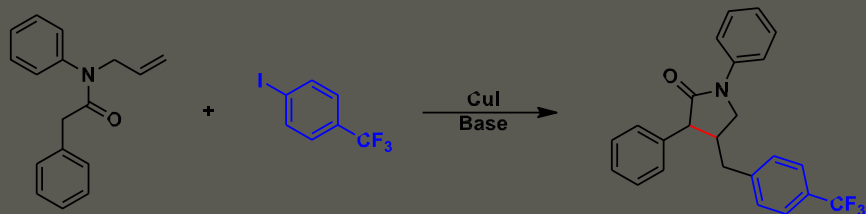


Optimizing Copper Catalyzed Cyclization of Unactivated Double Bonds

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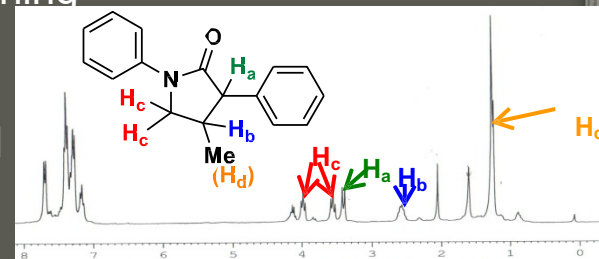
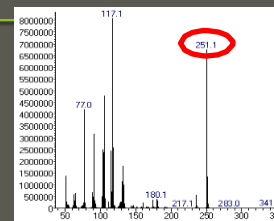
Objective

Optimize a reaction resulting in the cyclization of a double bond by an enolate using Cu(I) as a catalyst. Then use this to develop a tandem reaction that cyclizes and cross couples efficiently.

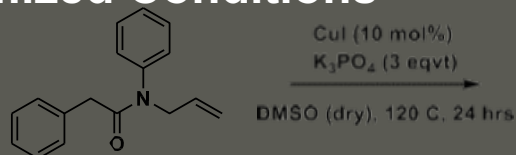


Optimizing Yield

- Solvent Screening
- Base Screening
- Catalyst Screening
- Sensitive to Lewis acid and active protons
- Product confirmed with NMR



Optimized Conditions



- Requires well dried conditions
- Optimized based on assessment of GC-MS data

Future Work

- Synthesize other substrates to determine scope of reaction under optimized conditions.
- Attempt cross coupling with aryl halides and allyl halides.

