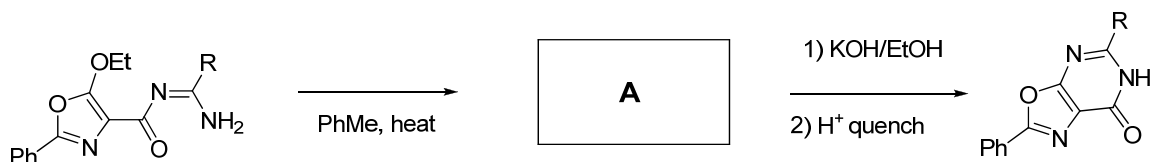
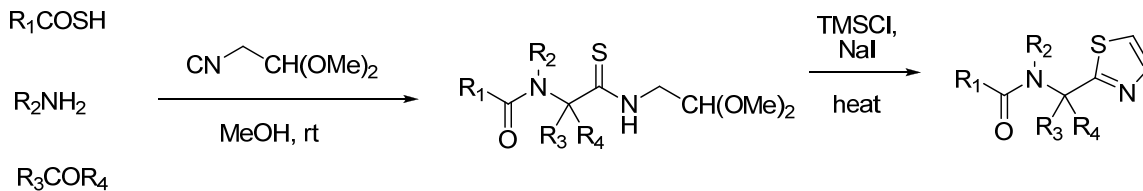


VanNieuwenhze Group Problem Set – 4/27/09

1. Identify intermediate **A** and propose a mechanism for its conversion.



2. The following transformation is a variation on a name reaction. Propose a mechanism for the conversion of the isocyanate to the thioamide intermediate.



3. Fukuyama and co-workers managed a production of the mitomycins through their interconversion, which proceeds via an interesting rearrangement. Propose a pathway for this equilibrium, which favors the mytomycin skeleton.

