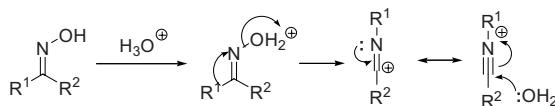
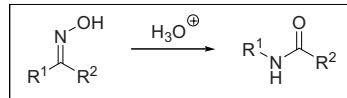


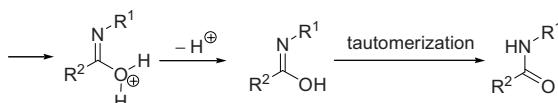
Beckmann rearrangement

Acid-mediated isomerization of oximes to amides.

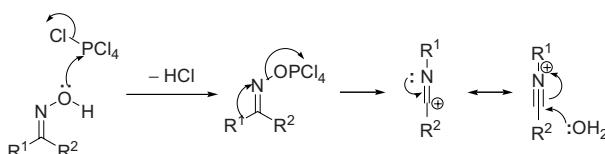
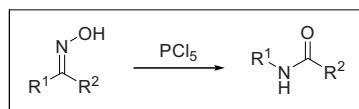
In protic acid:



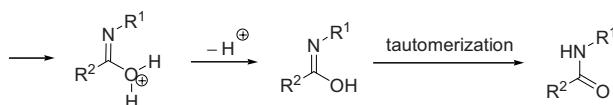
the substituent *trans* to the leaving group migrates



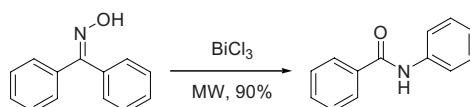
With PCl_5 :

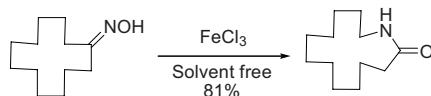
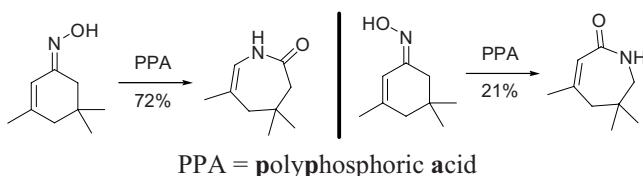
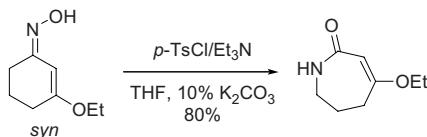


Again, the substituent *trans* to the leaving group migrates

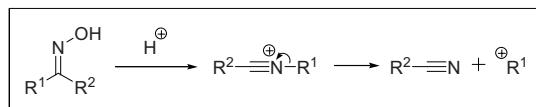
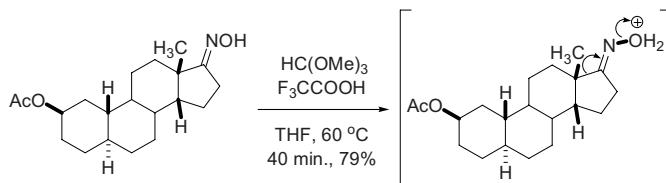


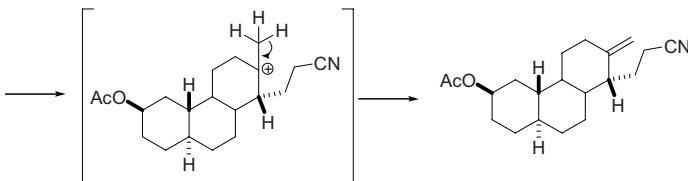
Example 1, Microwave (MW) reaction³



Example 2⁴Example 3⁶Example 4⁸

Abnormal Beckmann rearrangement is when the migrating substituent fragment (e.g., R¹) departs from the intermediate, leaving a nitrile as a stable product.

Example 1⁹



References

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