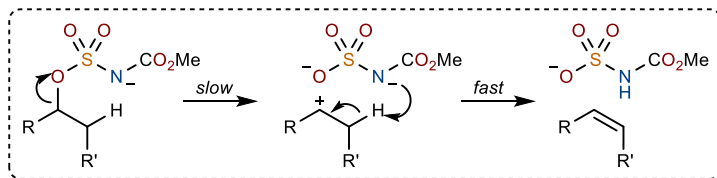
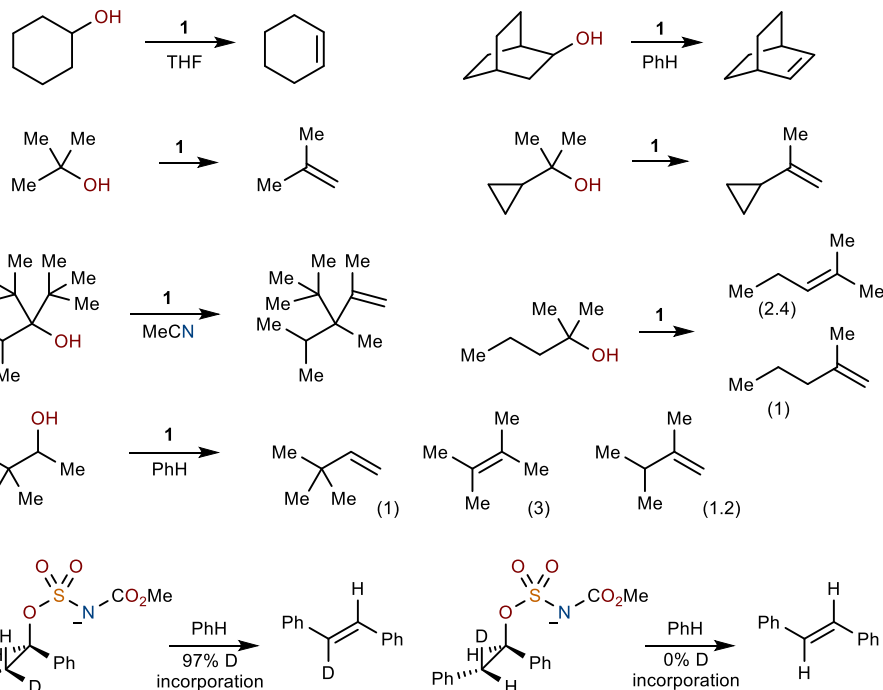
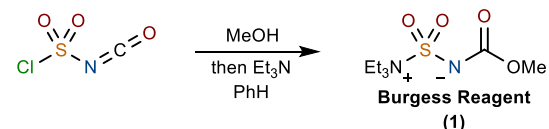


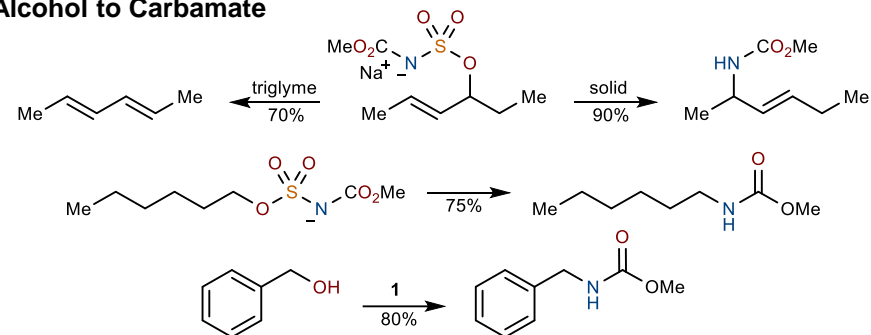
## Initial Reports (Atkins & Burgess, 1968)

### Preparation



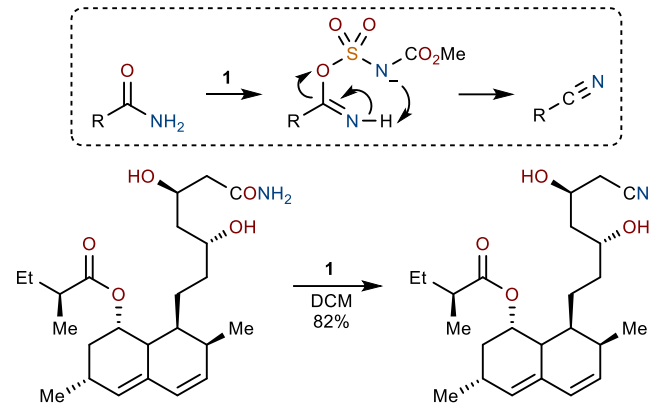
## Functional Group Interconversion

### Alcohol to Carbamate



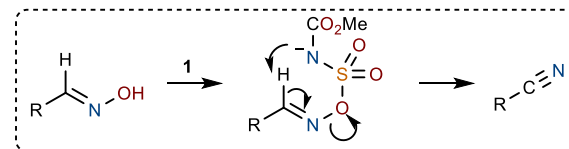
Burgess, E. M. *J. Org. Chem.* **1973**, 38, 26. <https://doi.org/10.1021/jo00941a006>

### 1° Amide to Nitrile



Claremont, D. A. *J. Org. Chem.* **1988**, 29, 2155. [https://doi.org/10.1016/S0040-4039\(00\)86697-6](https://doi.org/10.1016/S0040-4039(00)86697-6)

### Aldoxime to Nitrile

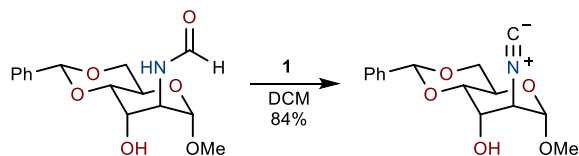


Miller, C. P. *Synlett.* **2000**, 8, 1169. <https://doi.org/10.1055/s-2000-6752>

Prathapan, S. *Synth. Commun.* **2000**, 30, 1509. <https://doi.org/10.1080/00397910008087179>

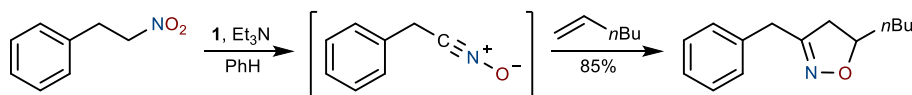
## Functional Group Interconversion (cont.)

### Formamide to Isonitrile



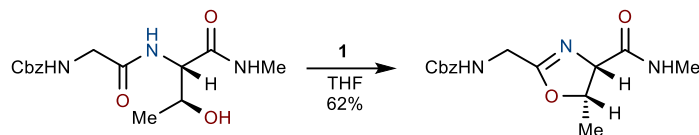
McCarthy, D. G. *J. Chem. Soc., Perkin Trans. 1* **1998**, 1015. <https://doi.org/10.1039/A708081F>

### 1° Nitro to Nitrile Oxide



Mioskowski, C. *Tetrahedron Lett.* **1997**, 38, 1547. [https://doi.org/10.1016/S0040-4039\(97\)00101-9](https://doi.org/10.1016/S0040-4039(97)00101-9)

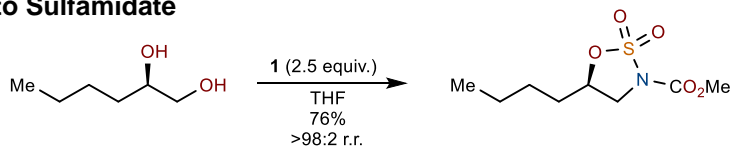
### Cyclodehydration



Mitsunobu conditions on this substrate form the corresponding aziridine.

Wipf, P. *Tetrahedron Lett.* **1992**, 33, 907. [https://doi.org/10.1016/S0040-4039\(00\)91572-7](https://doi.org/10.1016/S0040-4039(00)91572-7)

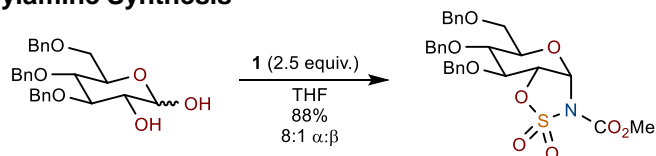
### Diol to Sulfamidate



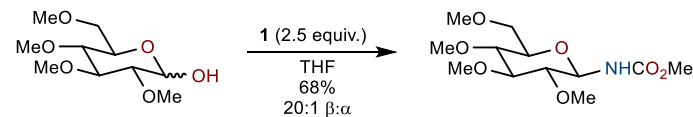
Nicolaou, K. C. *Angew. Chem. Int. Ed.* **2002**, 41, 834.

[https://doi.org/10.1002/1521-3773\(20020301\)41:5<834::AID-ANIE834>3.0.CO;2-V](https://doi.org/10.1002/1521-3773(20020301)41:5<834::AID-ANIE834>3.0.CO;2-V)

### Glycosylamine Synthesis



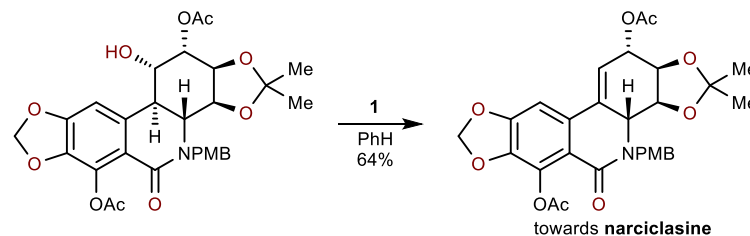
C2-unprotected glycosides provide alpha-glycosylamines selectively.



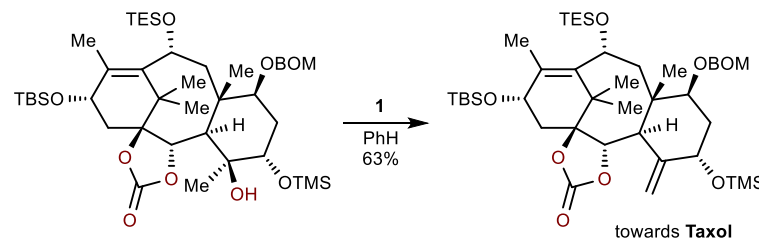
C2-unprotected glycosides provide beta-glycosylamines selectively.

Nicolaou, K. C. *J. Am. Chem. Soc.* **2004**, 126, 6234. <https://doi.org/10.1021/ja049293c>

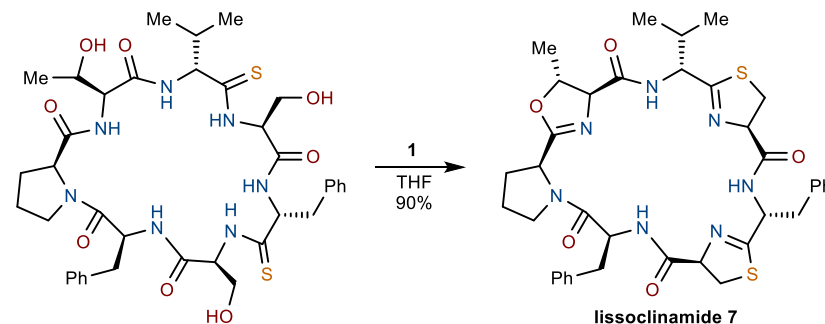
## Applications in Total Synthesis



Rigby, J. H. *J. Am. Chem. Soc.* **1997**, 119, 12655. <https://doi.org/10.1021/ja972950J>



Holton, R. A. *J. Am. Chem. Soc.* **1994**, 116, 1599. <https://doi.org/10.1021/ja00083a067>



Wipf, P. *J. Am. Chem. Soc.* **1996**, 118, 12358. <https://doi.org/10.1021/ja962859f>