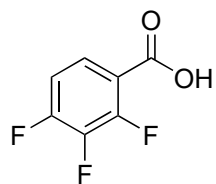


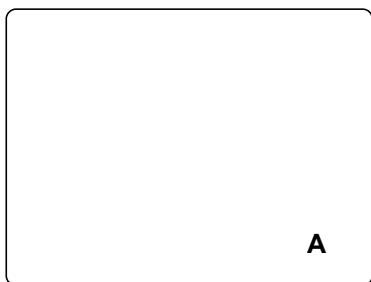
Novel DNA Gyrase Inhibiting Spiropyrimidinetriones with a Benzisoxazole Scaffold

G. S. Basarab, P. Brassil, P. Doig, V. Galullo, H. B. Haimes, G. Kern, A. Kutschke, J. McNulty, V. J. A. Schuck, G. Stone, and M. Gowravaram

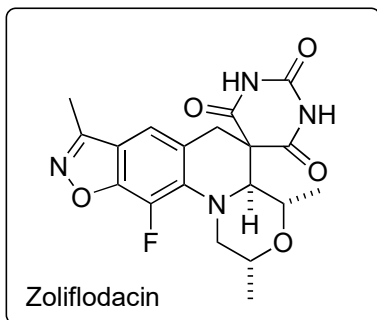
J. Med. Chem., 2014, 57, 9078-9095



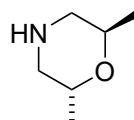
1-4



5-7

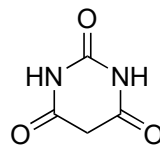


- 1) **X**, LHMDS, THF, -78 °C
- 2) NaBH₄, I₂, EtOH, reflux
- 3) TBDPSCI, imidazole
- 4) *s*-BuLi, CH₃C(=O)N(OMe)Me, MTBE, -78 °C



X

- 5) acetone-oxime, *t*BuOK then HCl (aq.)
- 6) MnO₂
- 7) **Y**, 3:1 AcOH:H₂O, 120 °C



Y

4) Explain the regioselectivity of this step

5) Provide a mechanism and name the heterocycle that is formed.

7) Name the reactions and provide a mechanism

