

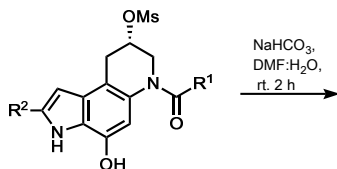
Problemset

20.01.2016

Darius Schwarzer, Gaich Group Seminar

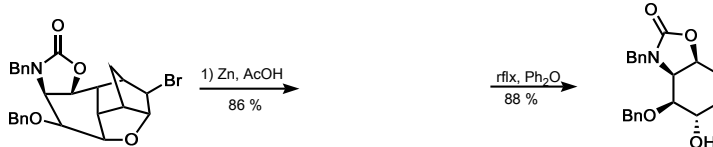
TEAM STUDENTS Total Synthesis of Yatakemycin

K. Okano, H. Tokuyama, T. Fukuyama,
J. Am. Chem. Soc. 2006, 128, 7136-7137.



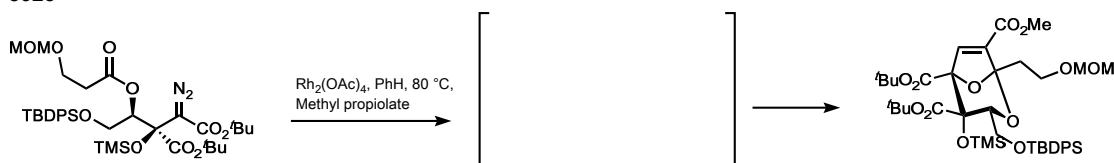
Concise and Enantioselective Synthesis of the Aminocyclitol Core of Hygromycin A

T. J. Donohoe, P. D. Johnson, R. J. Pye, and M. Keenan *Org. Lett.*,
2005, 7(7), pp 1275 - 1277



Total Synthesis of Zaragozaic Acid C (apetizer)

Y. Hirata, S. Nakamura, N. Watanabe, O. Kataoka, T. Kurosaki, M. Anada, S. Kitagaki, M. Shiro, S. Hashimoto, *Chem. Eur. J.* 2006, 12, 8898-8925



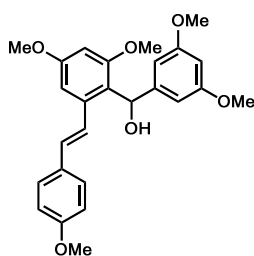
Total Synthesis of (±)-11-*O*-Debenzoyltashironin

S. P. Cook, A. Polara, S. J. Danishefsky, *J. Am. Chem. Soc.* 2006, 128, 16440-16441

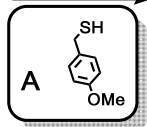


Total Synthesis of Paucifloral F, Ampelopsin D, Isoampelopsin D, Quadrangularin A, Isopaucifloral F, Pallidol, Hemsleyanol E

S. A. Snyder, A. L. Zografos, Y. Lin, *Angew. Chem. Int. Ed.* 2007, 46, 8186-8191

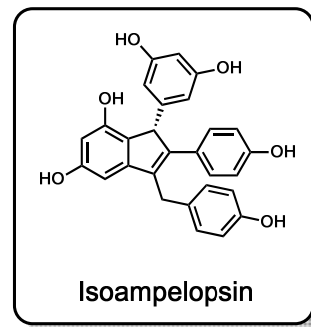


1) *p*TsOH (1 equiv.),
CH₂Cl₂
-30 to -20 °C,
then **A** (3 equiv.)



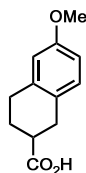
2) *m*CPBA (3 equiv.),
NaHCO₃ (10 equiv.),
CH₂Cl₂, 0 to 25 °C,
3 h, 78 %
3) *t*BuOH/H₂O/CCl₄,
KOH (20 equiv.),
80 °C, 12 h, 52 %
4) BBr₃ (12 equiv.) CH₂Cl₂,
6 h, rt, 76 %

5) HCl, MeOH, 80 °C, 96 %



Total Synthesis of Platensimycin

K. Tiefenbacher, J. Mulzer, *Angew. Chem. Int. Ed.* 2007, 46, 8074-8075



1) SOCl₂, DMF,
PhMe, rt, 3h
2) TMSCHN₂, THF,
SiO₂, rt, 12 h
3) TFA, -20 °C, 1h

4) MeMgI, THF, -78 °C
5) NBS, (BzO)₂, CCl₄, rt
6) NaOMe, THF, 0 °C

7) Pd/C, KOH,
EtOH, H₂, 3h
8) HIO₃·DMSO,
DMSO, Cyclohexene
50 °C

