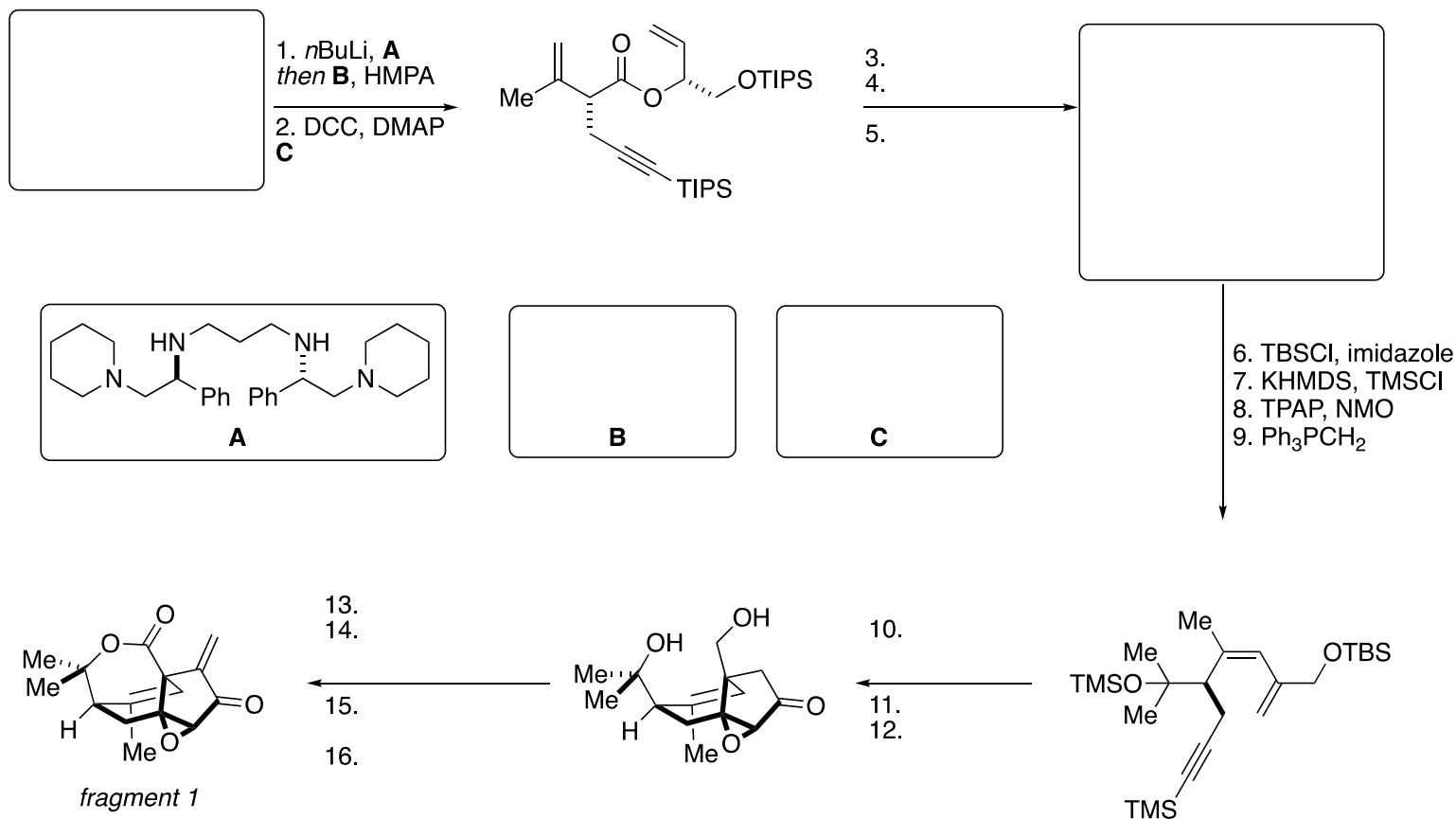
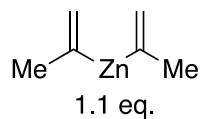
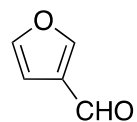


E141: Synthesis of (+)-Haperforin G





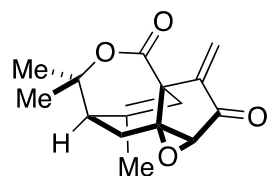
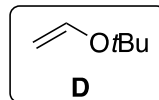
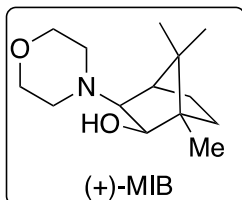
1'. Et₂Zn (2.8 eq.)
(+)-MIB (4 mol%)
2'. NIS, **D**



3'. Pd(OAc)₂, DPPF
4'. H₂CrO₄



fragment 2

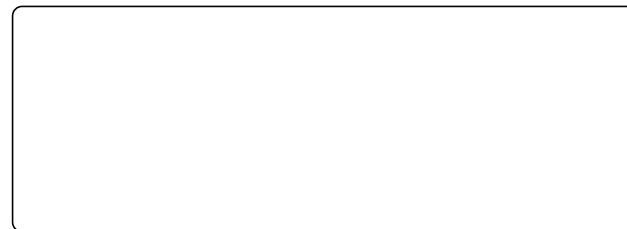


fragment 1

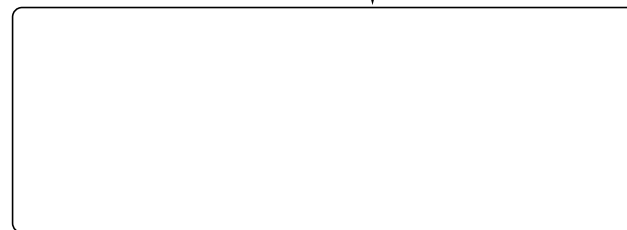


fragment 2

17. [Ir(ppy)₂(dtbbpy)]PF₆
DIPEA, Hantzsch ester
90 W blue LED, DMSO
d.r. > 20:1



18. *t*BuOK



19. SOCl₂

20. DBU



(+)-Haperforin G
limonoid tetranortriterpenoid
human 11β-HSD1 inhibitor