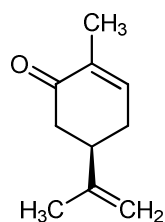
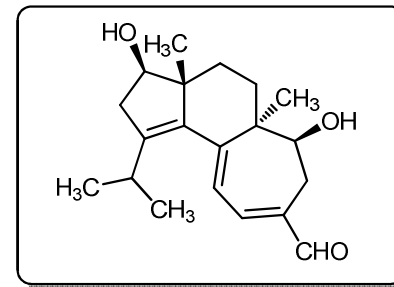


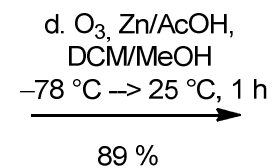
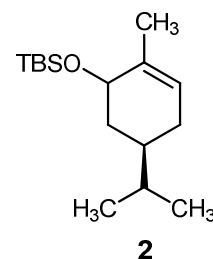
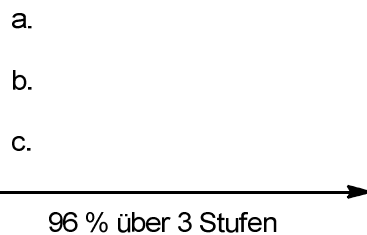
# Totalsynthese von Cyrnein A

E. Elamparuthi, C. Fellay, M. Neuburger, K. Gademann, *Angew. Chem.* **2012**, *124*, 4147–4149.

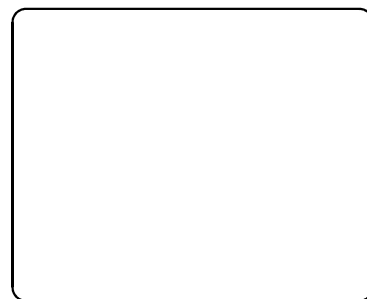
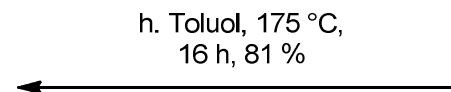
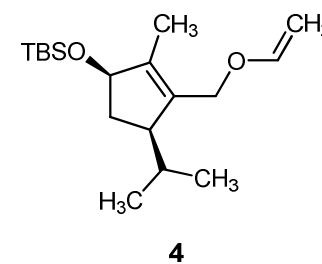
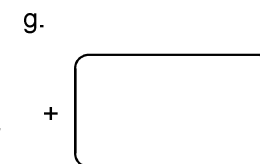
Aus dem Pilz *sarcodon cyrneus* isoliert.  
Syntheseseminar, 23. Mai 2012

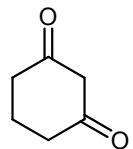


1



e.  
f.

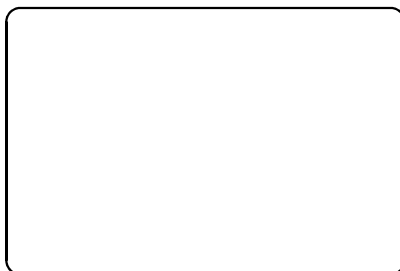




+ 5

i. L-Prolin, Hantzsch-Ester,  
DCM, 3 h, 25 °C  
j. MeI, DBU, LiI, THF,  
14 h, 75 °C

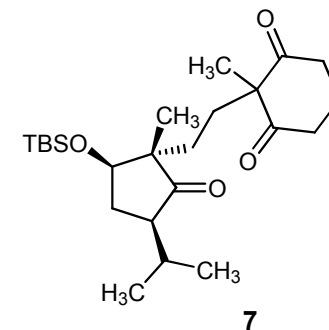
73 % über 2 Stufen



6

k.

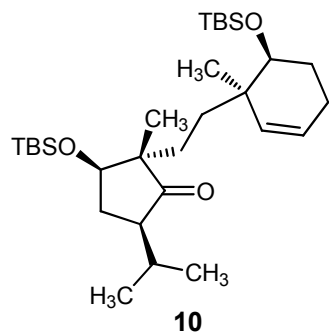
83 %



7

l.  $\text{CeCl}_3 \cdot 7\text{H}_2\text{O}$ ,  $\text{NaBH}_4$ ,  
THF/MeOH, -78 °C, 20 min

68 %



10

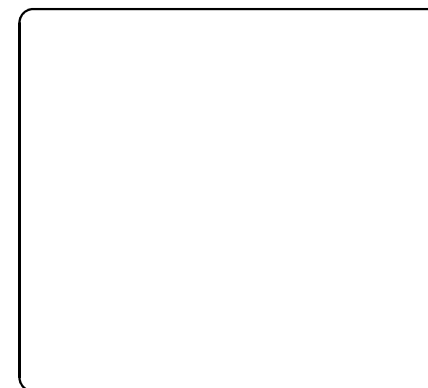
o.

p.



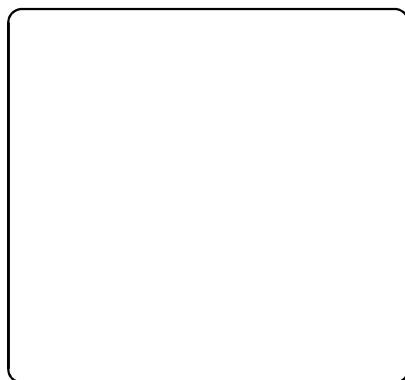
9

m.  $(\text{MeSO})_2\text{O}$ , Pyridin, DMAP,  
5 h, 25 °C, 88 %  
n. LiBr,  $\text{Li}_2\text{CO}_3$ , DMF,  
140 °C, 1 h, 79 %



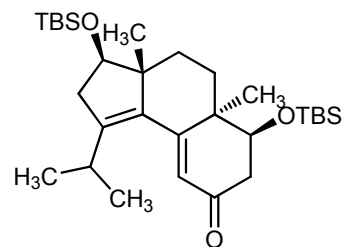
8

q. KHMDS,  $\text{PhNTf}_2$ , THF, -78 °C, 3 h, 83 %  
r.  $\text{CrO}_3$ , 3,5-Dimethylpyrazol, DCM, 18 h, 25 °C, 71 %



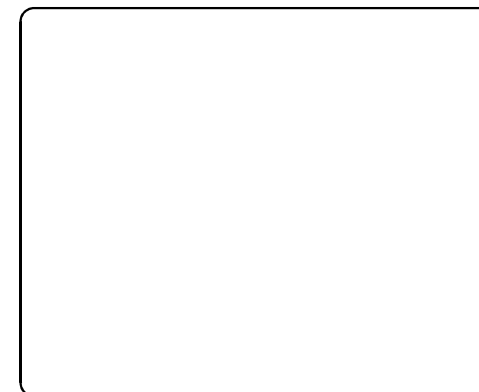
11

s.



12

t.  $\text{CH}_2\text{Br}_2$ , LiTMP,  
THF, -78 °C, 20  
min, 76 %

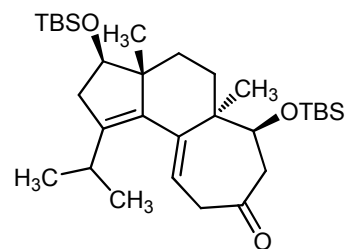
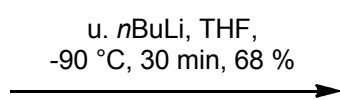


13

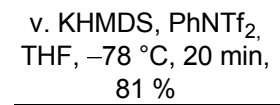
2



13

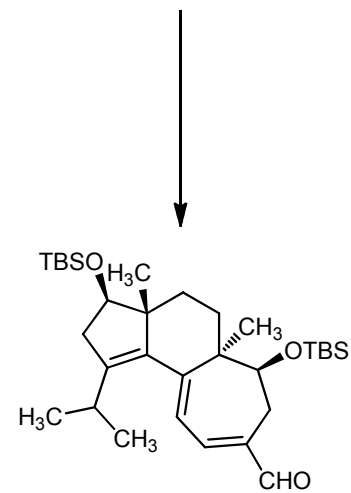


14



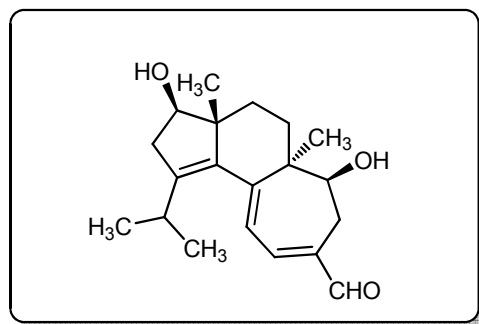
15

w.



16

x.



17