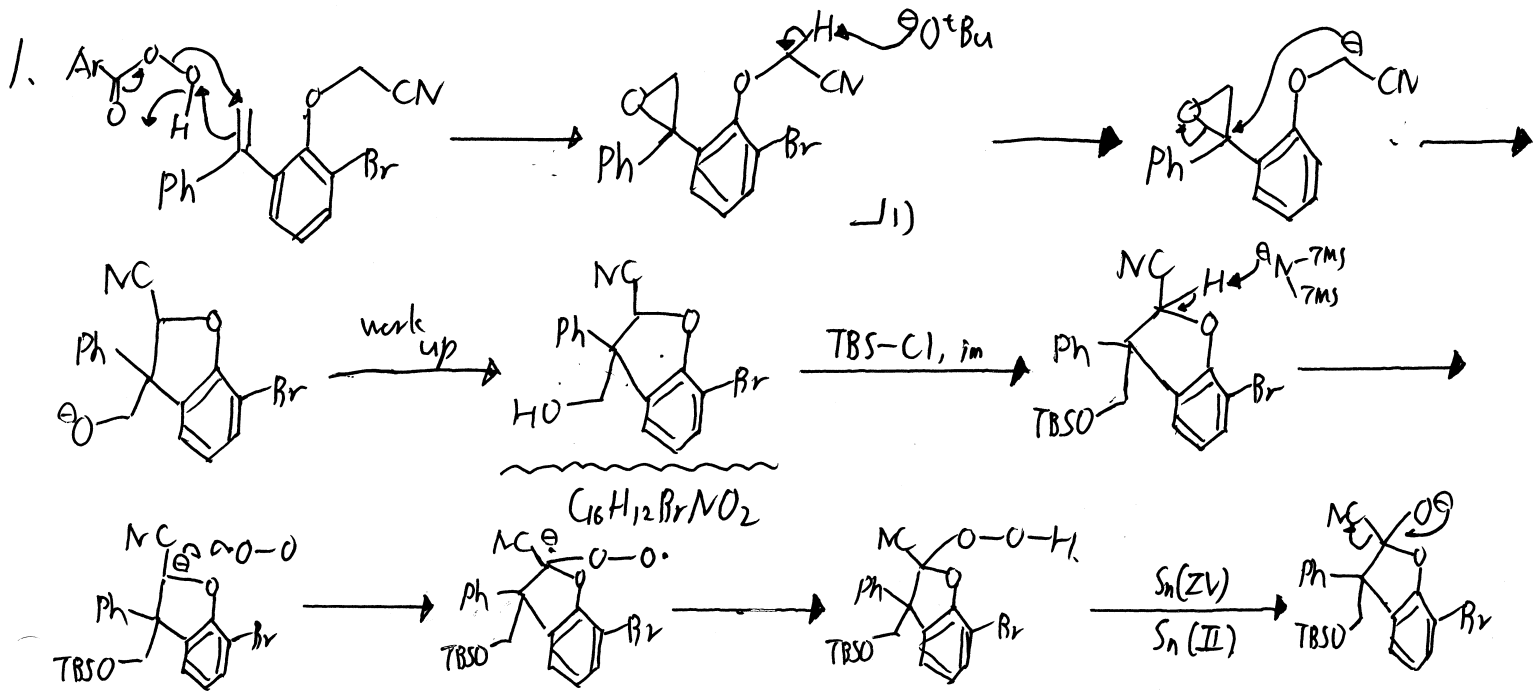
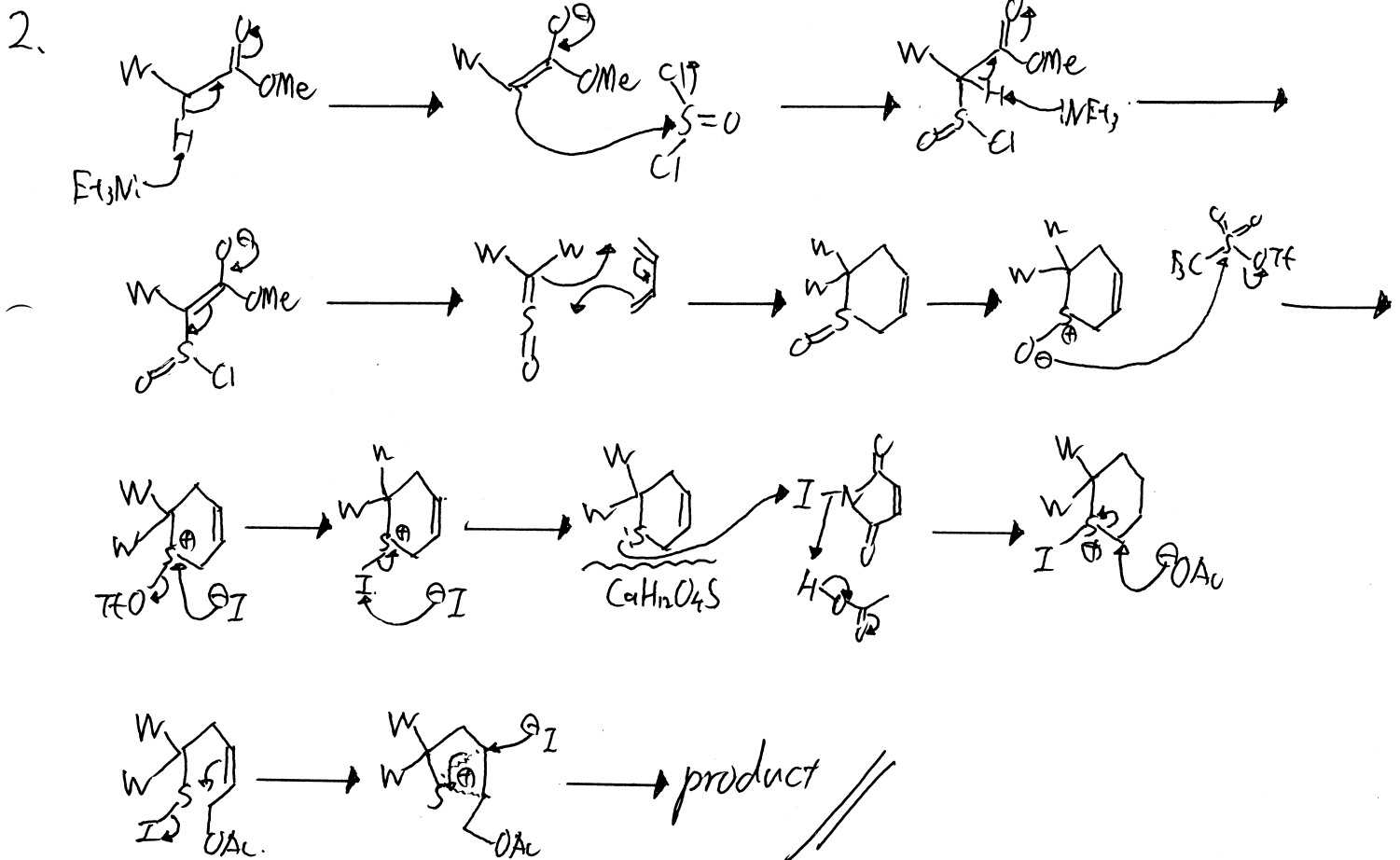


# Solution (040303 T. Indue)



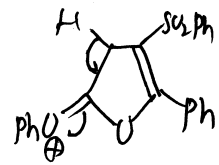
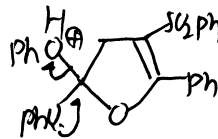
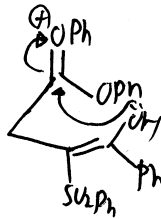
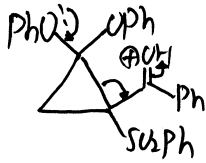
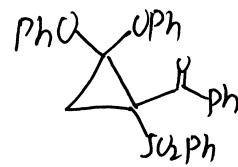
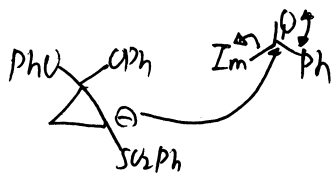
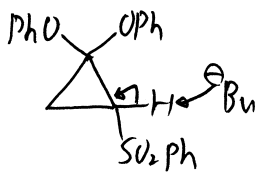
→ product //

Angew. Chem. IE (2000), 3473, K. C. Nicolaou  
= (2001), 4705, "



Eur. JOC (2004), 74, B. Zwanenburg

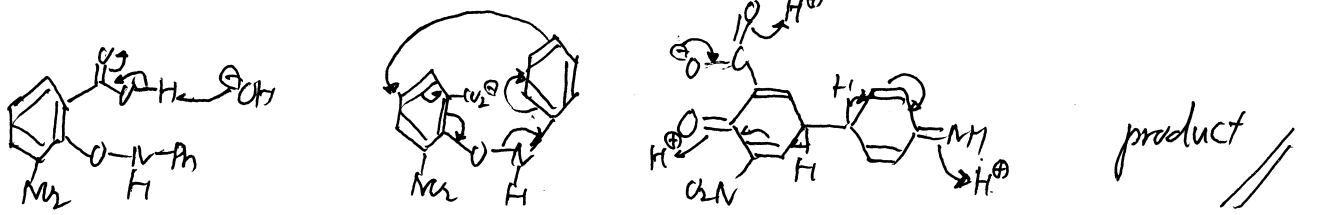
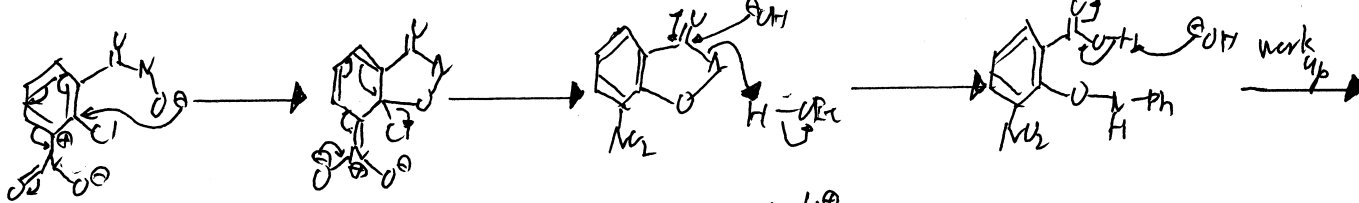
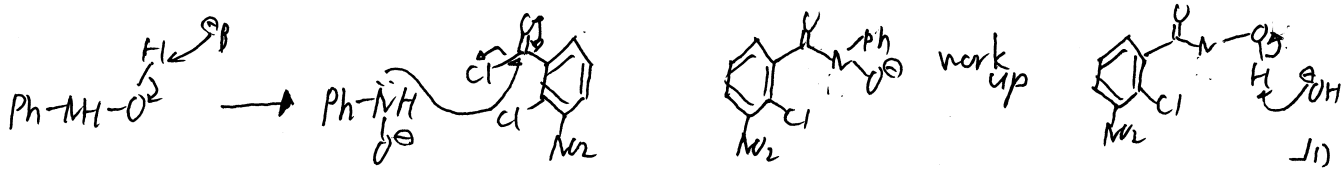
3.



product //

Tetrahedron, 52, 7149

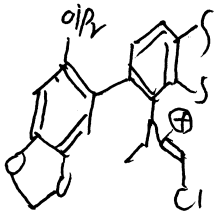
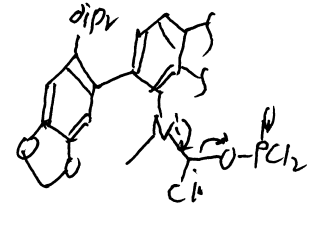
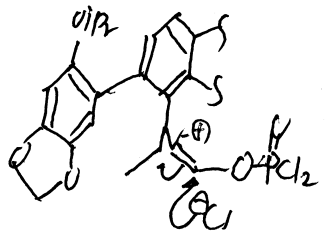
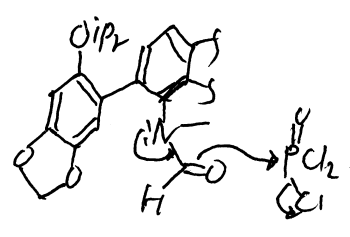
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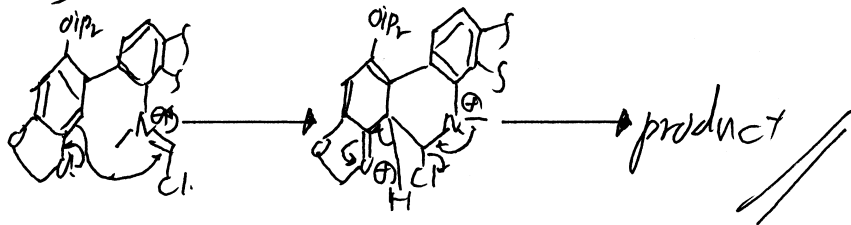
J. Heterocyclic. Chem. (1980), 189

5.



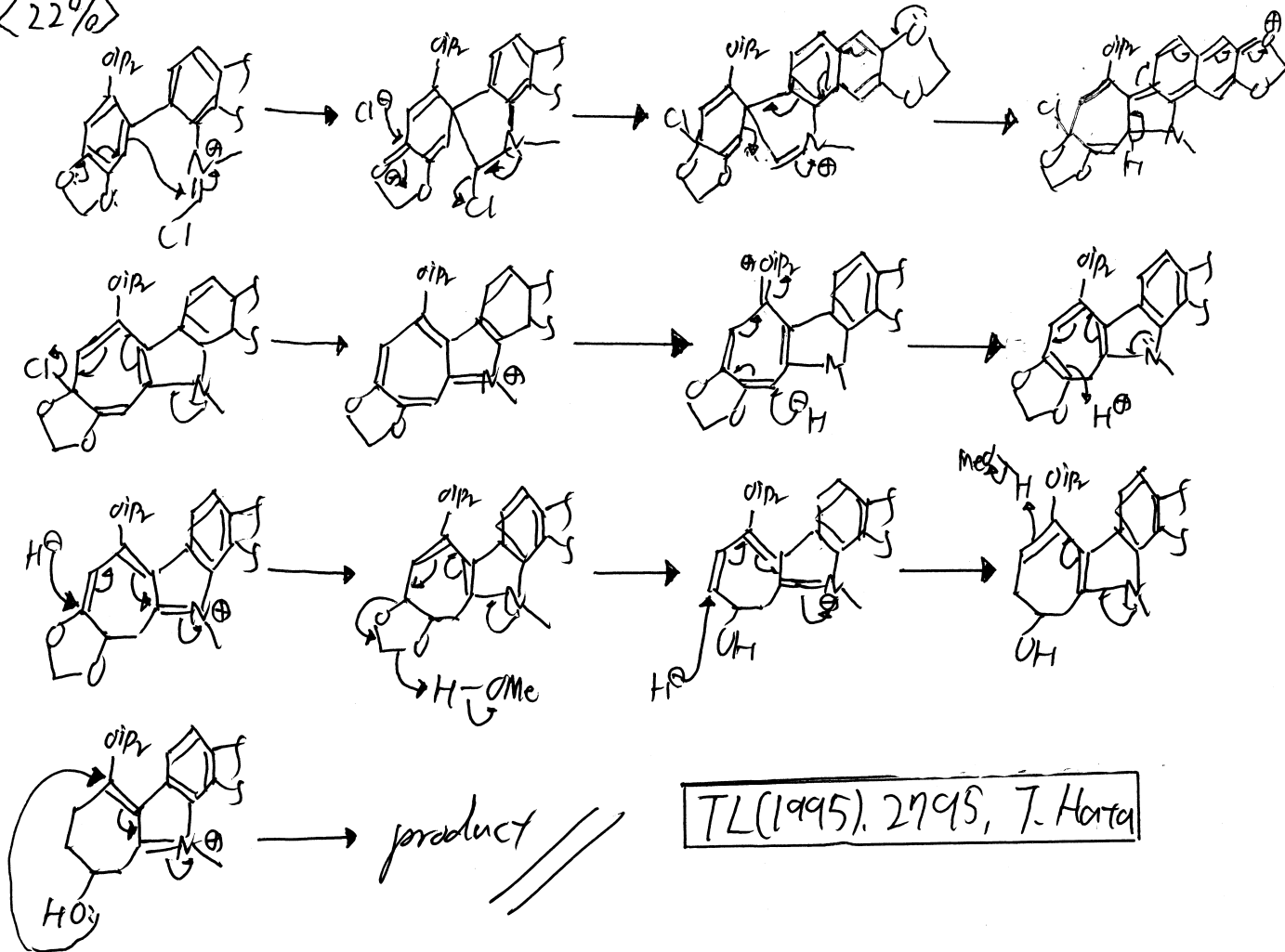
≡ A (以下まで両者共通)

<44%>



product //

<22%>

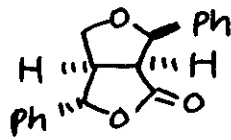
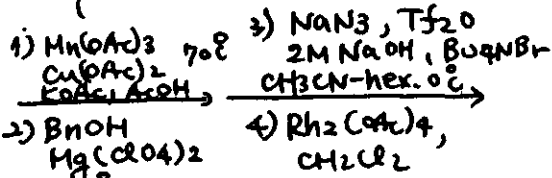
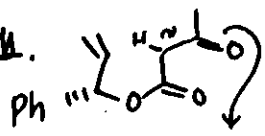


4310 GMP

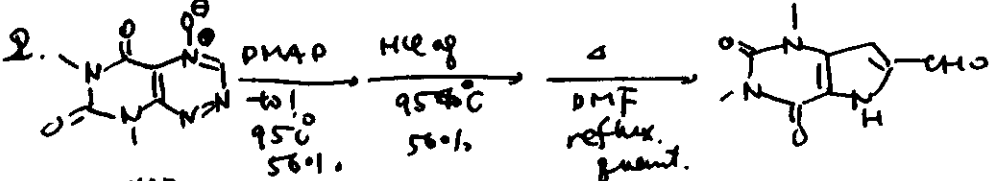
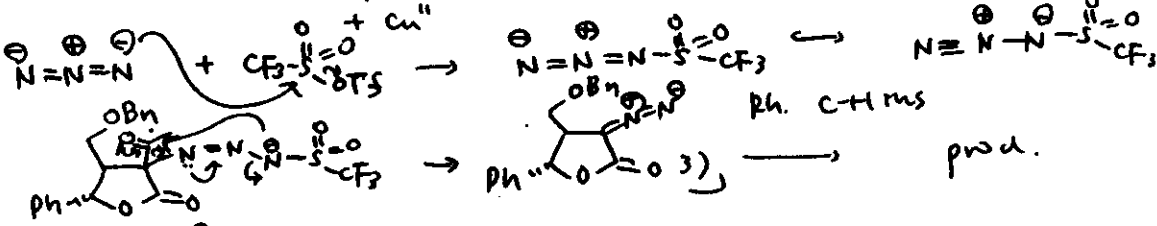
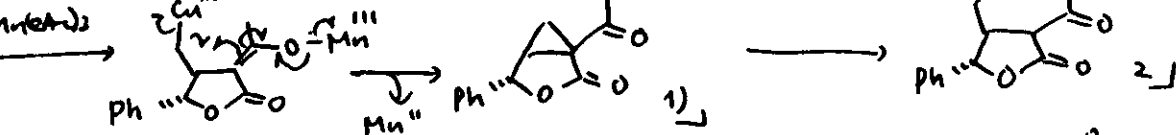
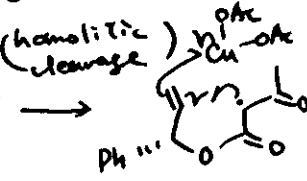
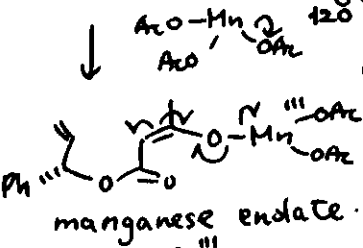
Mn-enolate  
 $\rightarrow$  38%  
 $\rightarrow$  53%  
 $\uparrow$

Regitz Diazo Synthesis

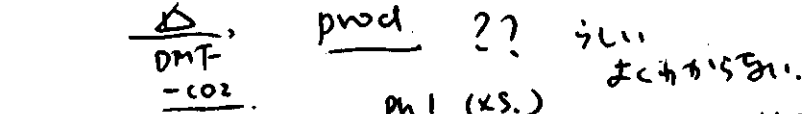
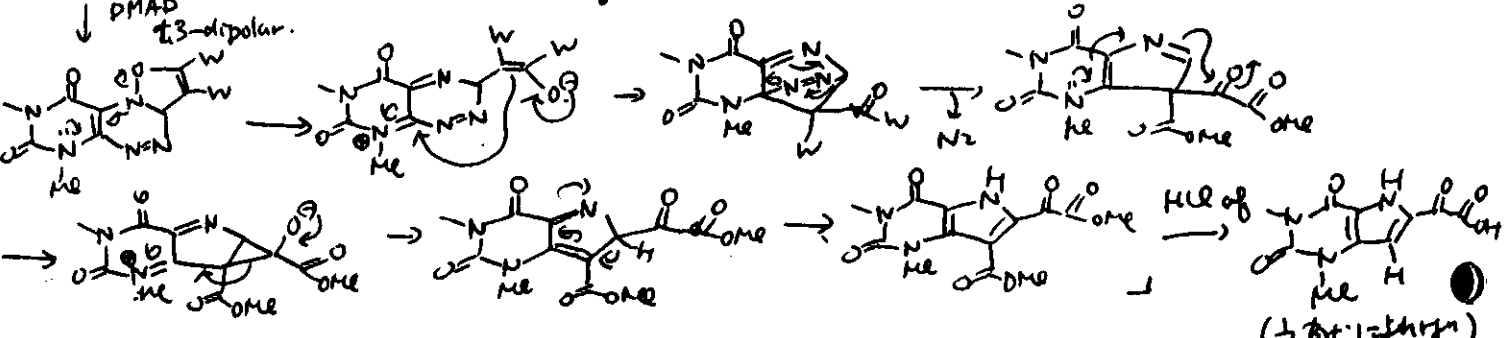
K. Okano



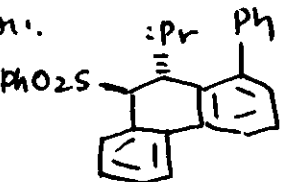
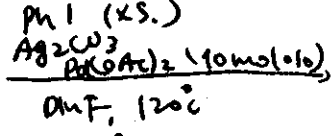
JOC, 2004, 122,  
 Richard, C.D. Brown



JOC, 1999, 3P30  
 Hoshigaki, S.

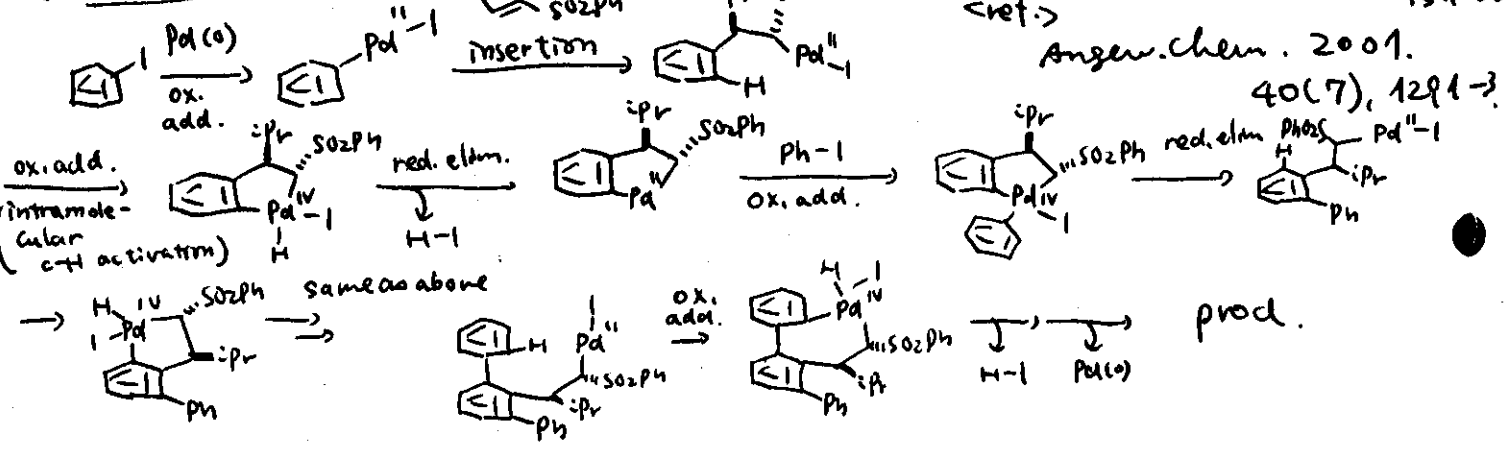


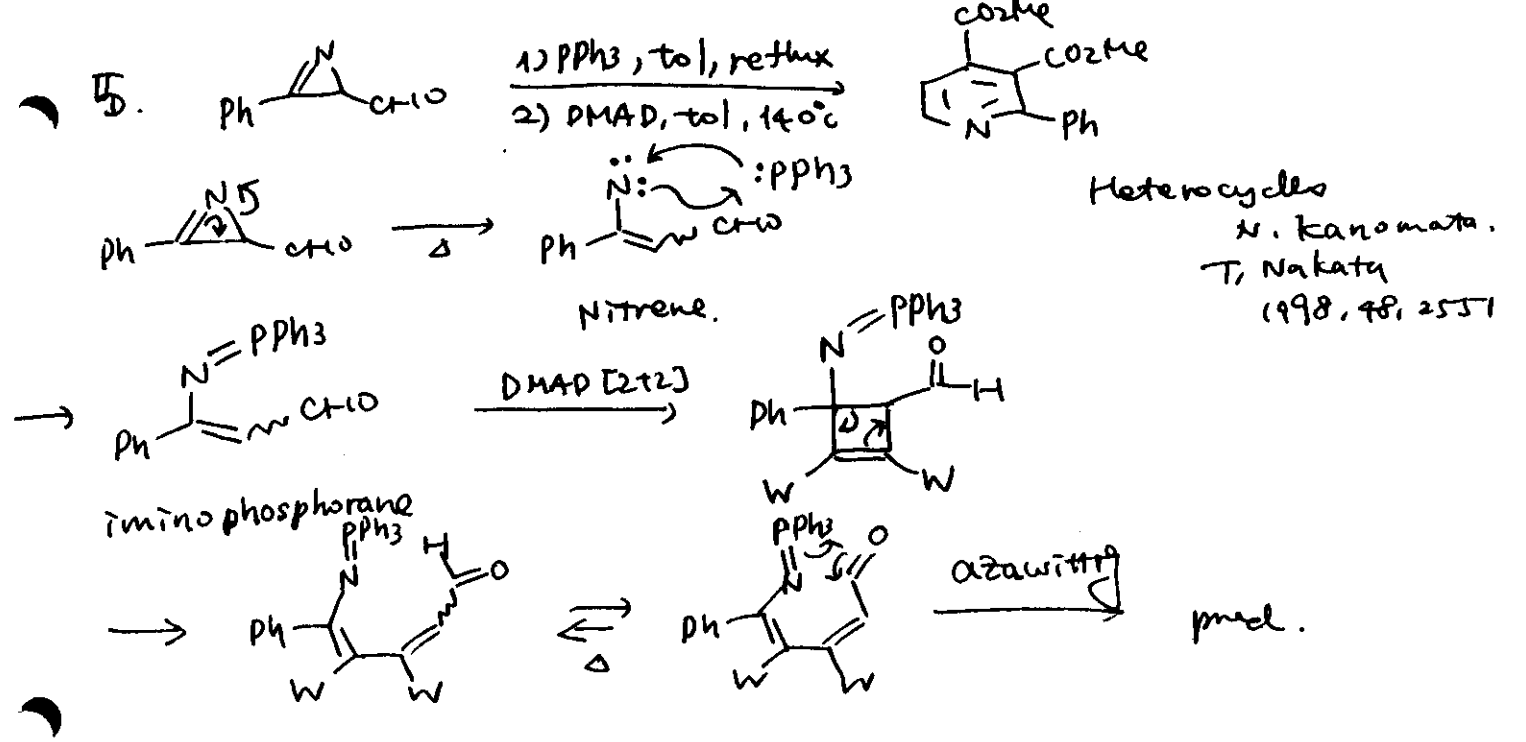
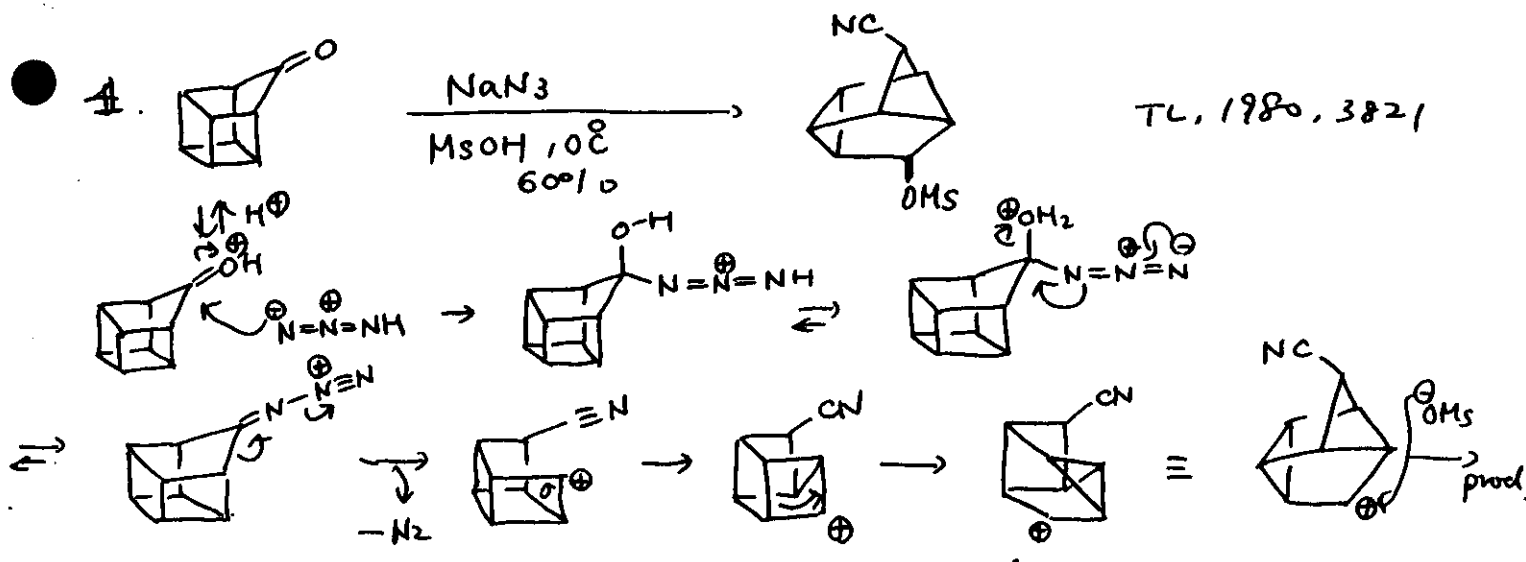
3.  $PhO_2S$



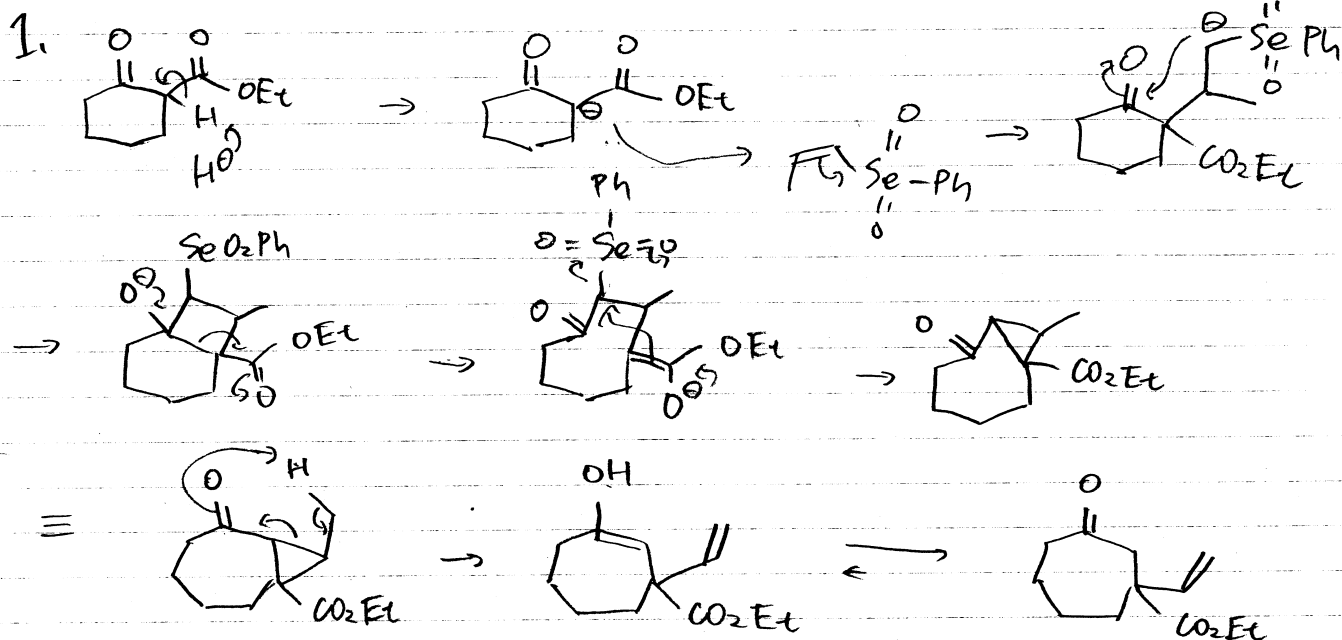
Chem. A.  
 H. Osajima, Eur. J.  
 2003, 9(9)  
 154-20.

$Pd(IV)$  E.A.

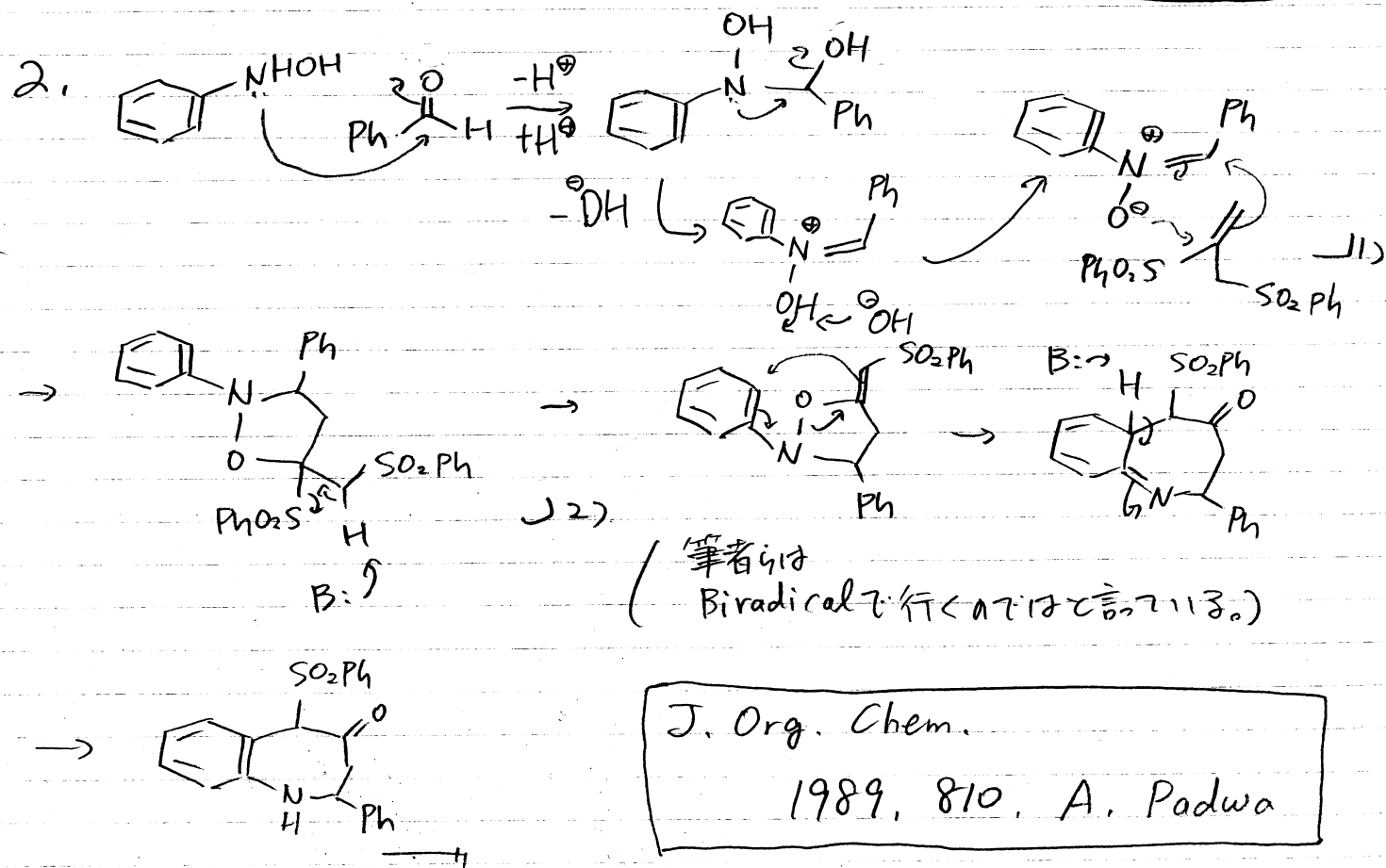




2004/3/24 (WED) Answer

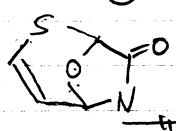
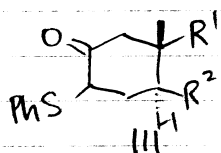
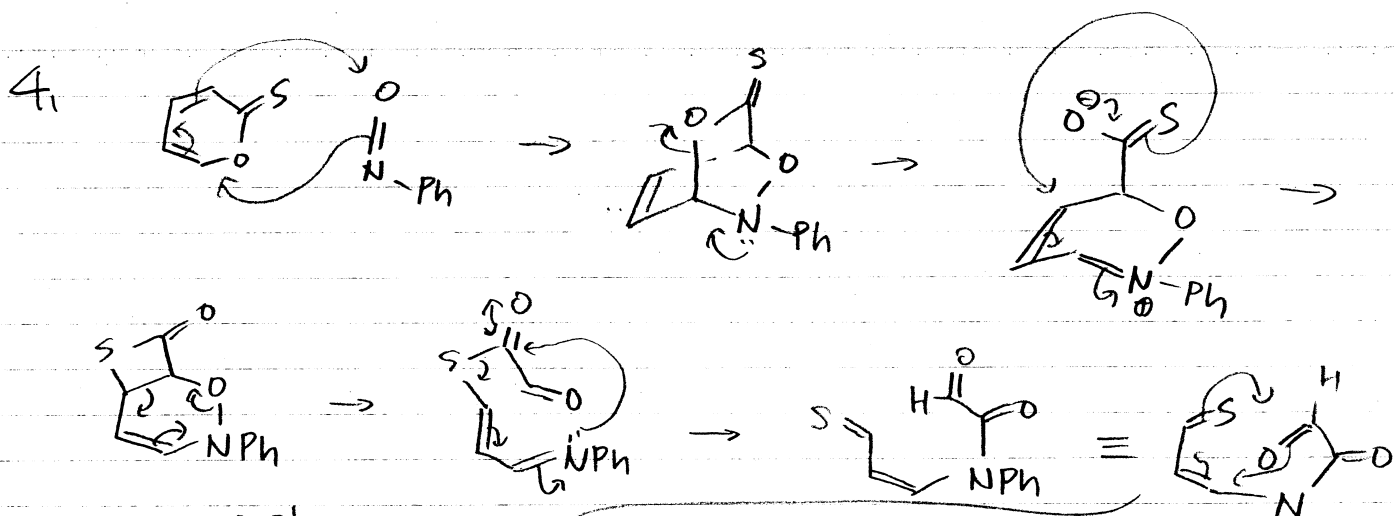


Tetrahedron Lett. 1985, 5571  
I. Kuwajima

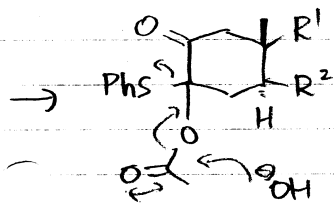
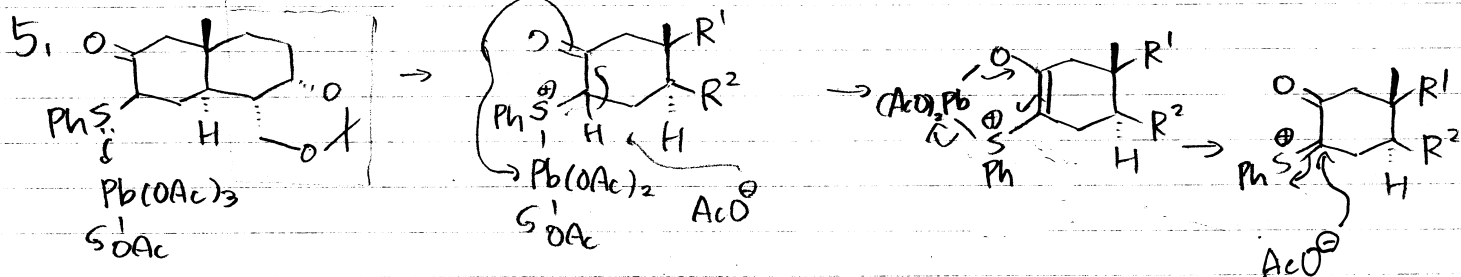


J. Org. Chem.  
1989, 810, A. Padwa

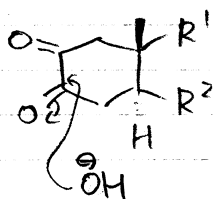




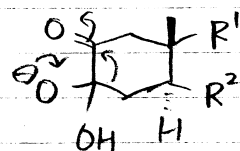
Streith, J. Chem. Comm. 1982, 1112.  
Ugi, I. Chimia 1988, 42, 217.



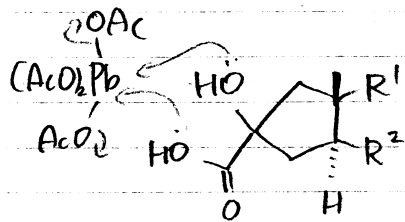
J1)



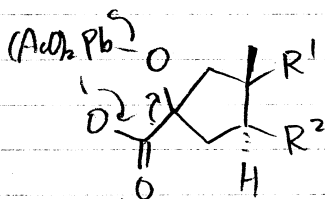
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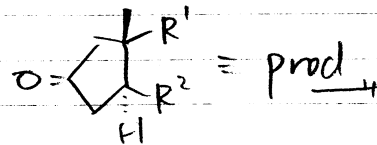
→



J2)



↓

 $\text{CO}_2$ ,  
 $\text{Pb}(\text{OAc})_2$ 

= prod →

Tetrahedron 1986, 42, 3323

B. M. Trost