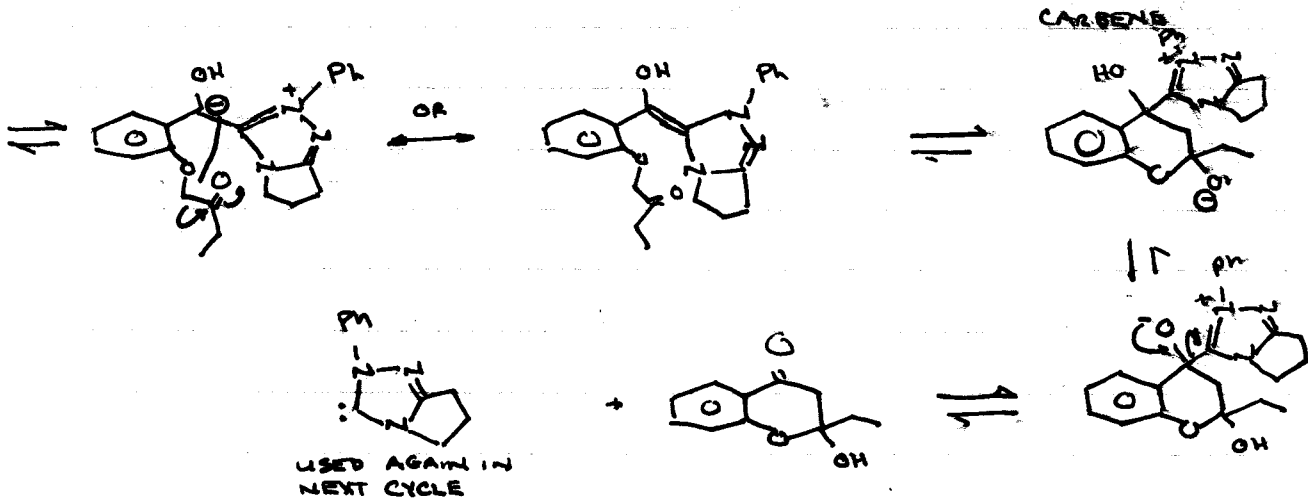
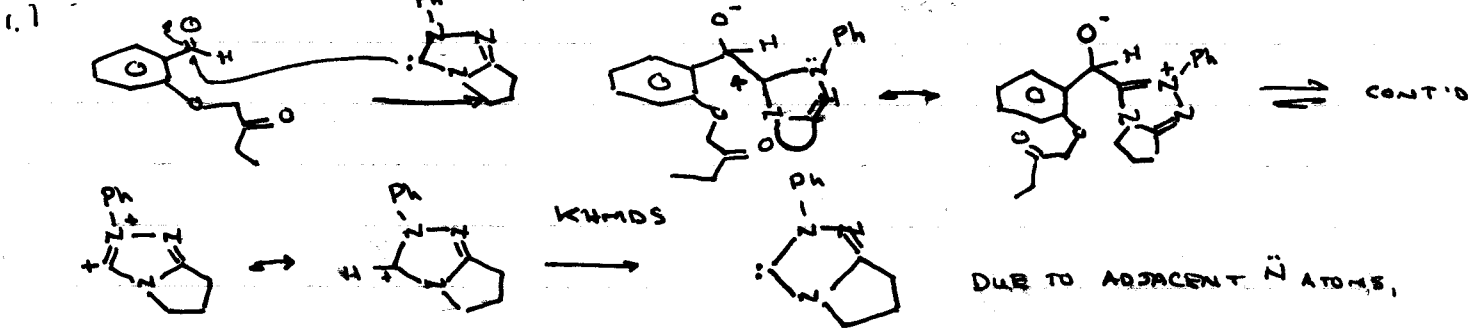


ASSIGNMENT 1 - SUGGESTED SOLUTIONS

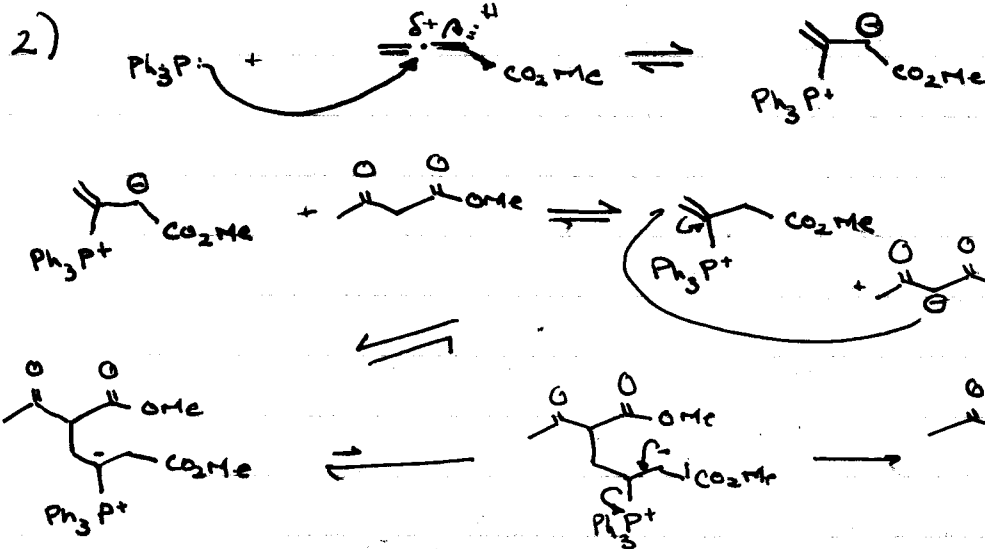
FROM ENDERS, D.; NIEMEIER, G.; RAABE, G.

SYNLETT 2006, 2431

ALTERED A 517



I WASN'T SO CONCERNED ABOUT THE BY-PRODUCT. IT LIKELY COMES FROM KHMDS OR CARBENE ACTING AS A BASE ON THE KETONE FUNCTION, AND A REGULAR BASE CATALYZED ALDOL.

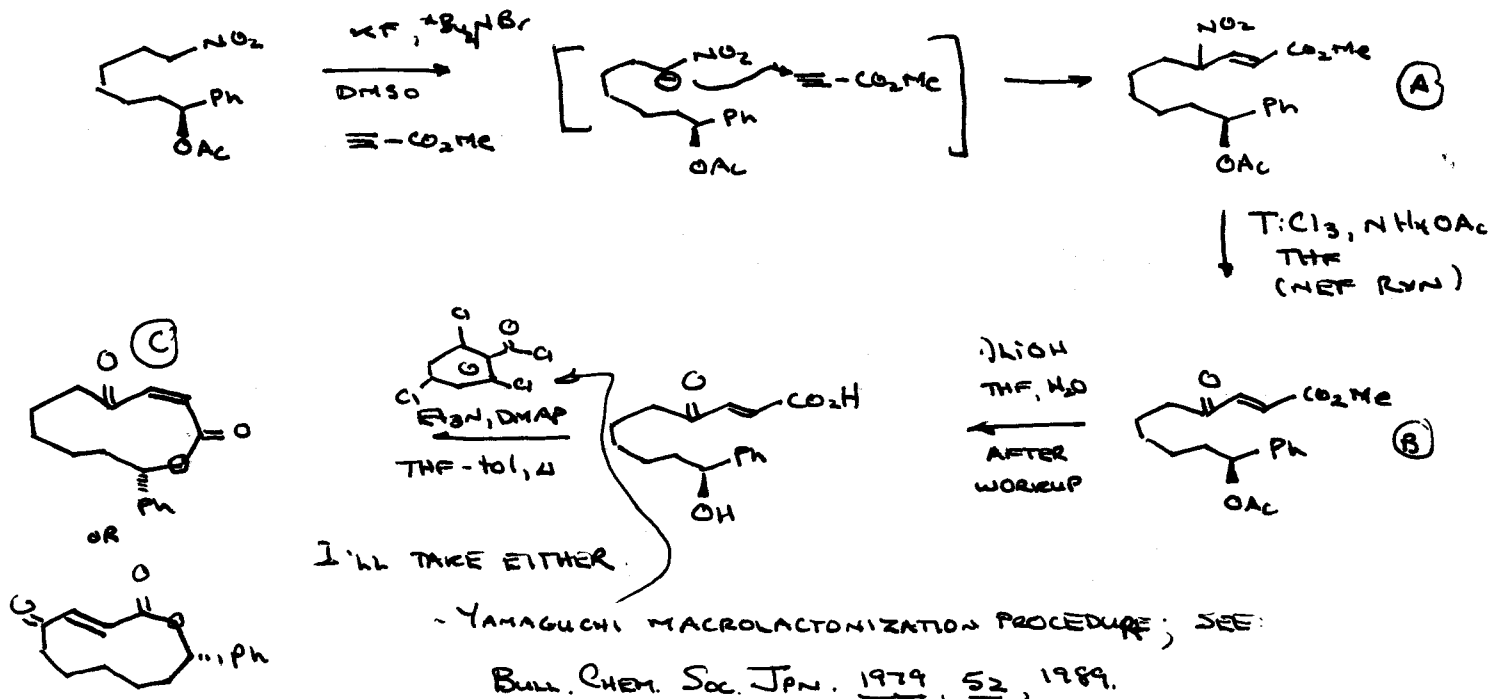


NOTE: IT IS NOT CLEAR WHETHER TO DRAW \rightleftharpoons OR \rightleftharpoons WITH $\text{Ph}_3\text{P}^{\ominus}$ CO_2Me BUT YOU CAN'T DRAW THIS 1ST. DO YOU KNOW WHY?

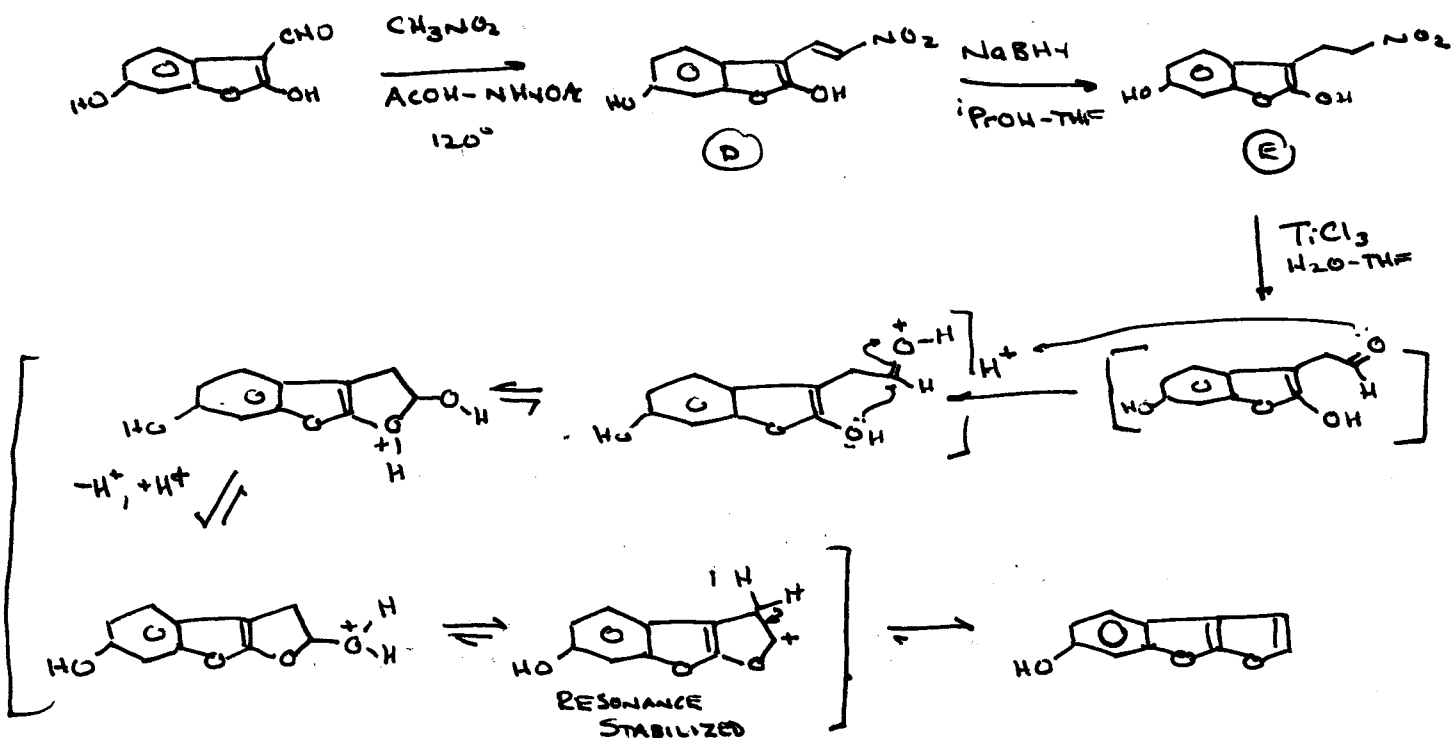
THE pK_a 'S OF THE (PRO)NUCLEOPHILES ARE QUITE LIMITED, BECAUSE ALL THE EQUILIBRIA HAVE TO FIT TOGETHER PROPERLY.

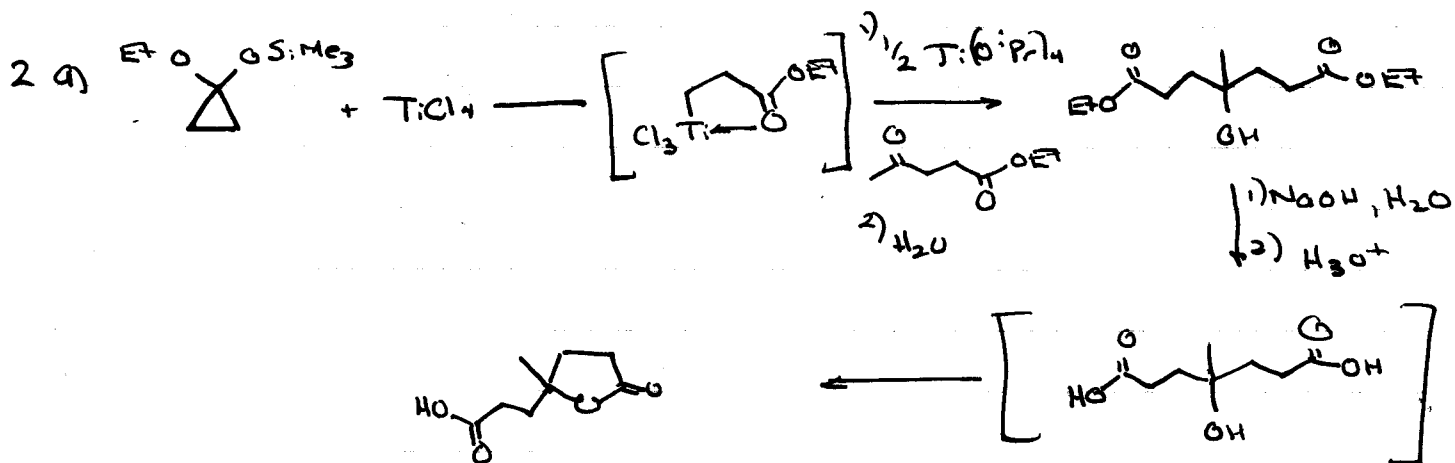
CONT'D THE ORIGINAL CHEMISTRY IS TROST'S BUT THIS IS FROM.
 ZHANG, C.; LU, X. SYNLETT 1995, 645.

3a) FROM KALITA, D.; KHAN, A.T.; BARUA, N.C.; BEZ, G. TETRAHEDRON 1999, 55, 5177.



6) FROM ZHANG, B.-L.; WANG, F.-D.; YUE, J.-M. SYNLETT 2006, 567.





b) From Kumar, N.S.; Pinto, B.M. CARBOHYDR. RES. 2006 341, 1685.

