

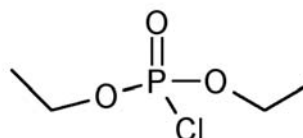
Chemical Name:

Diethyl Chlorophosphate (DECP)

CAS Registry Number:

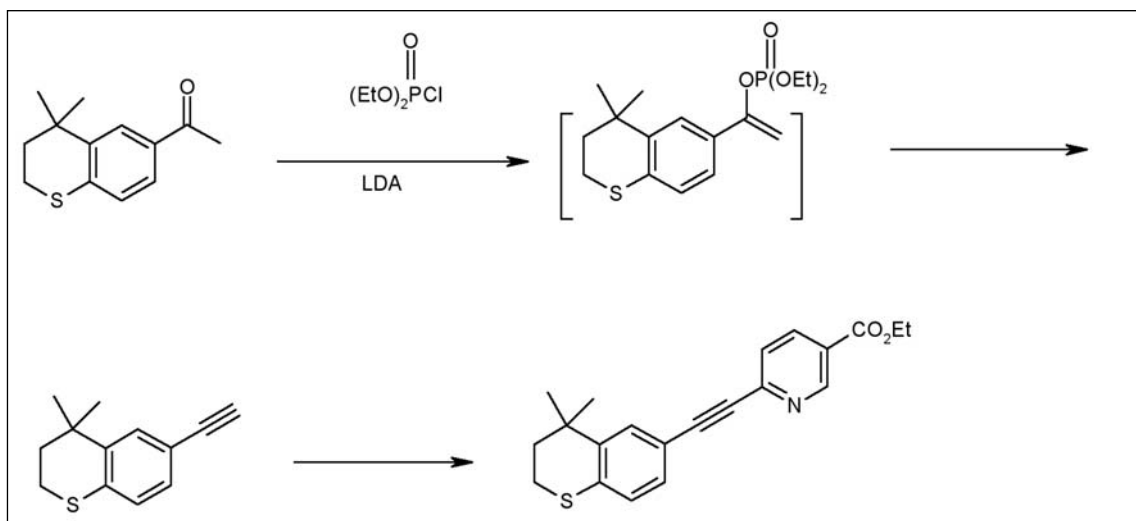
814-49-3

Structure:

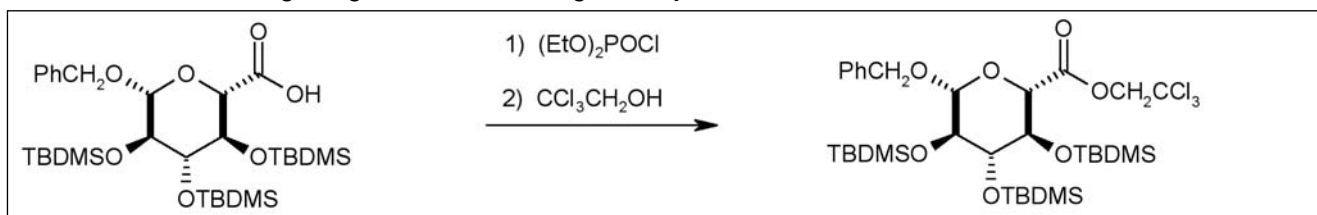


Examples / Use:

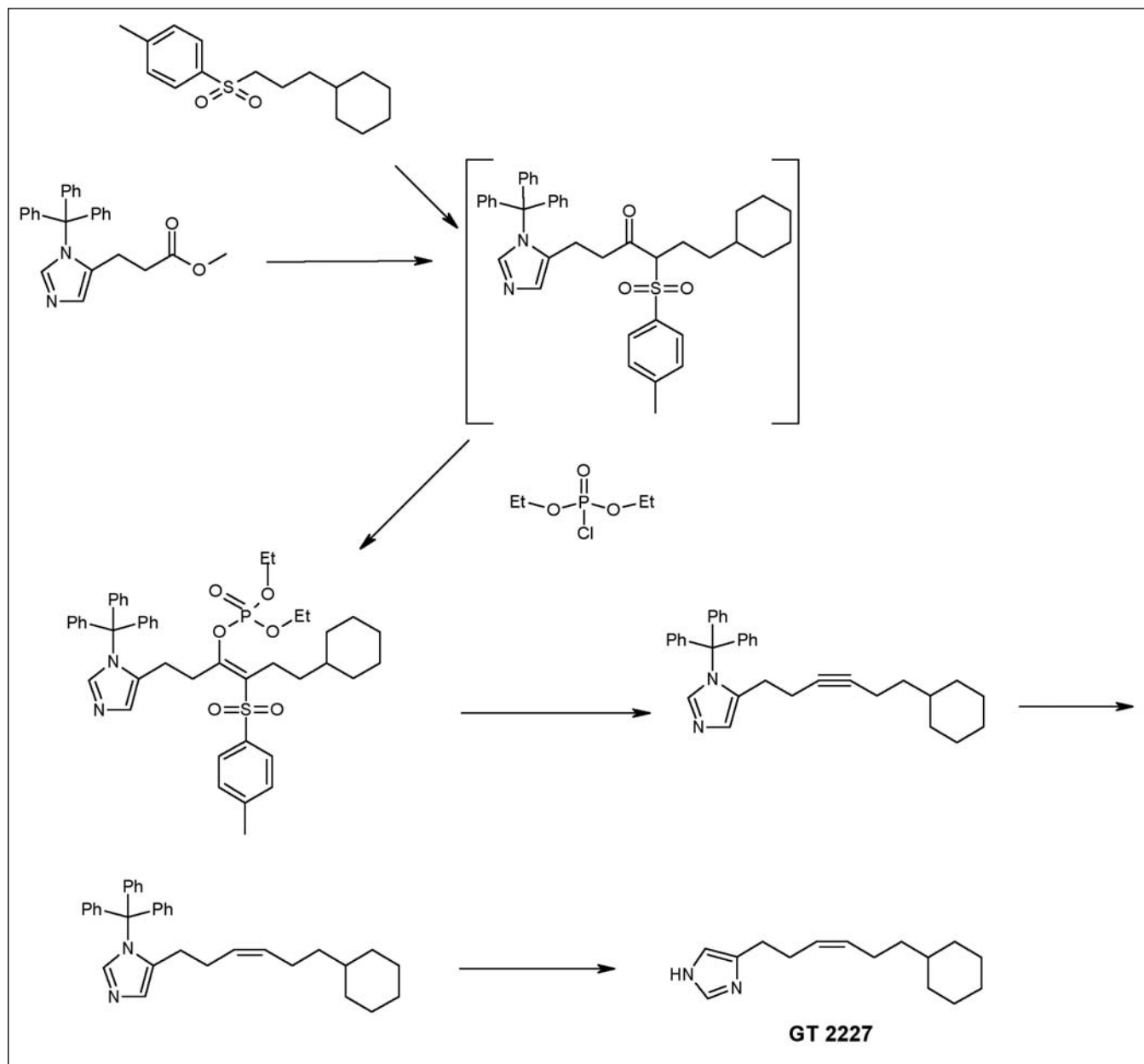
A. Diethyl Chlorophosphate as an Activating Reagent for converting methyl ketones into alkynes.



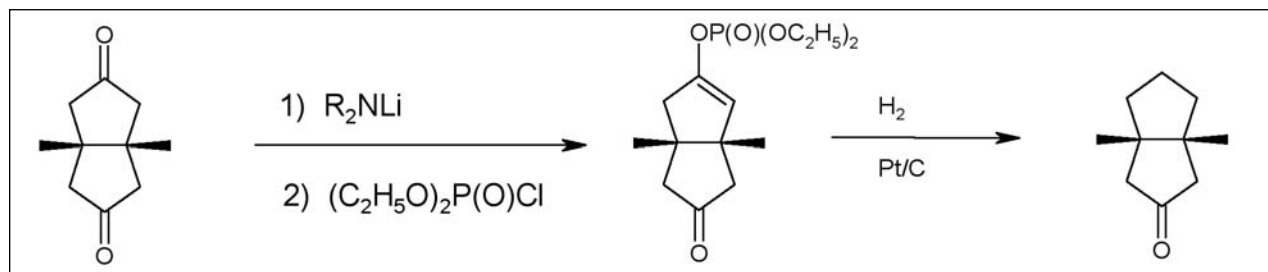
B. DECP as Activating Reagent for transforming carboxylic acids to esters.



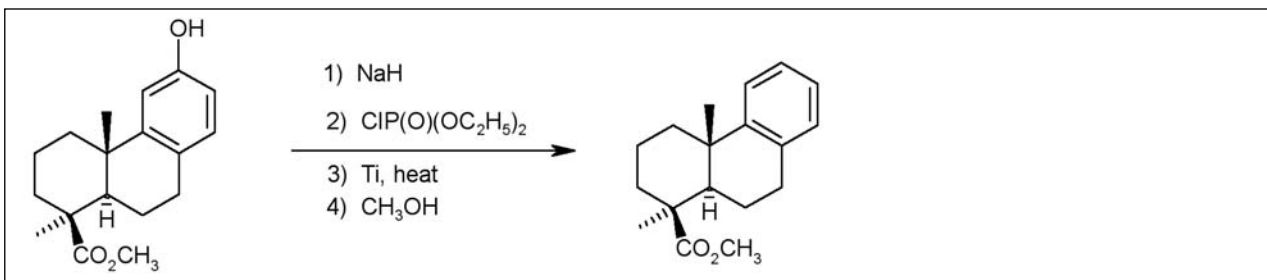
- C. DECP as an activating reagent for converting β -keto sulfones into acetylenes. Useful in the synthesis of Gilatech's, GT 2227, for treatment of Attention Deficit Disorder.



- D. DECP in the reduction of a ketone to a methylene group. corresponding binaphthalene.



E. DECP in the deoxygenation of phenols.



Summary:

THERAPEUTIC AREA:

Use not associated with any specific therapeutic area.

FUNCTIONALITY:

Transformational reagent (activating) for:

- Converting methyl ketones to alkynes and β -keto sulfones in acetylenes
- Transforming carboxylic acids to esters
- Deoxygenation of phenols
- The reduction of a ketone function to a methylene group

References:

- Drugs of the Future 1997, 22(3), 249-255
US 5,089,509 (1992)
- Drugs of the Future 1998, 23(10) 1129 - 1130.
- WO 96/ 38142 (1996)
- J. Am Chem. Soc., 104, 2198 (1982)
- J. Org Chem., 43, 4797 (1978)

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