

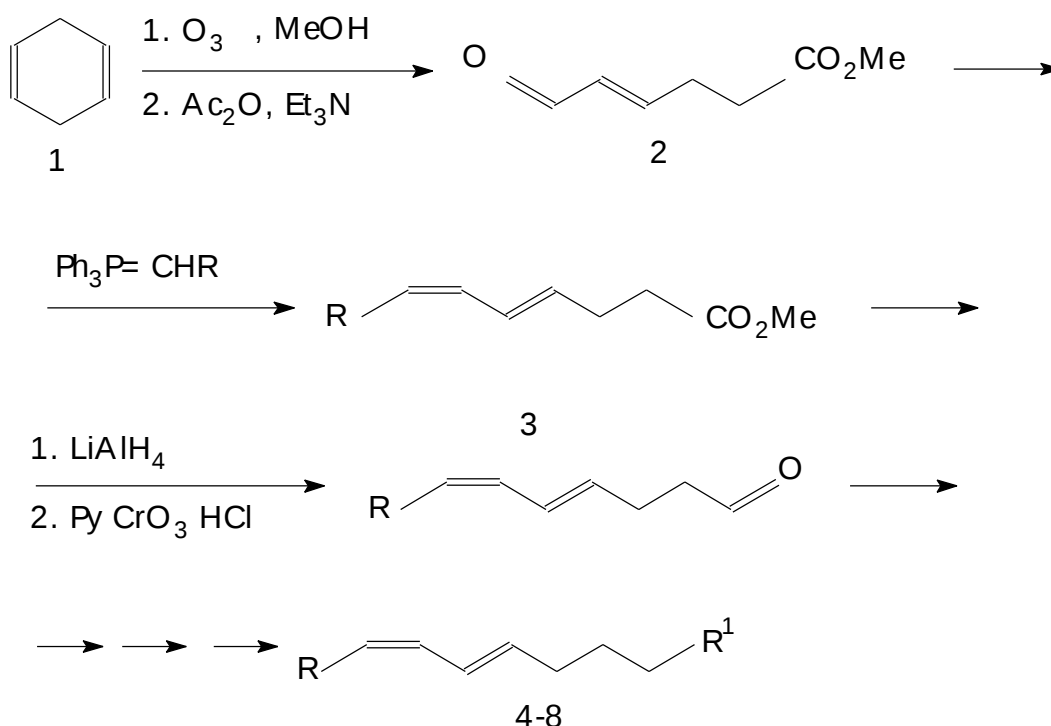
Effective Way of Synthesis of the Pheromones Containing Conjugated (E,Z)-Diene System

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On the base of 6-oxo-4E-hexene acid methyl ester (2), which is the product of partial ozonolysis of 1,4-cyclohexadien (1) the general approach to the synthesis of the pheromones containig conjugated (E,Z)-diene system has been elaborated. The olefination of aldehyde (2) by alkylidetriphenyl-phosphorane proceeded with stereoselective formation of (Z)-double bond in the ester (3). By selective transformation of ester group pheromones of *Diparopsis castanea* (4), *Lobesia botrana* (5), *Bombix mori* (6), *Malacosoma disstria* (7) and *Halcosoma Californicum* (8) have been synthesized.



$\text{R} = \text{H}$, $\text{R}^1 = (\text{CH}_2)_3\text{OAc}$ (4); $\text{R} = \text{CH}_3\text{CH}_2$, $\text{R}^1 = (\text{CH}_2)_3\text{OH}$ (5); $\text{R} = \text{CH}_3(\text{CH}_2)_2$,
 $\text{R}^1 = (\text{CH}_2)_6\text{OH}$ (6); $\text{R} = \text{CH}_3(\text{CH}_2)_3$, $\text{R}^1 = \text{CHO}$ (7); $\text{R} = \text{CH}_3(\text{CH}_2)_3$, $\text{R}^1 = \text{CH}_2\text{OH}$ (8)