

# Synthesis and X-Ray Single Crystal Structure of Dialkyl 2-[1-(2,2-Dimethylpropionyl)-3,3-dimethyl-2-oxobutyl]-3-(triphenylphosphoranylidene)succinates

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A one-pot synthesis of sterically congested phosphorus ylides in fairly high yields by the reaction of 2,2,6,6-tetramethyl-3,5-heptanedione, dialkyl acetylenedicarboxylates and triphenylphosphine is reported. The structures of these compounds were confirmed by IR, <sup>1</sup>H, <sup>31</sup>P and <sup>13</sup>C NMR spectroscopy, and X-ray single crystal structure determination. The NMR spectra (CDCl<sub>3</sub> as solvent) indicated that the compounds contained two rotamers for each ylide.

*Key words:* 2,2,6,6-Tetramethyl-3,5-heptanedione, Phosphorus Ylide, Acetylenic Ester, Vinyltriphenylphosphonium Salts