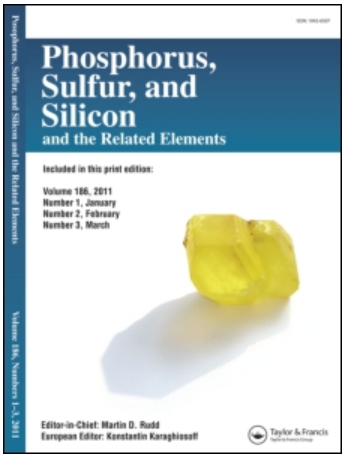

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New and Stereospecific Synthesis of α-Ethylenic Ketones

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NEW AND STEREOSPECIFIC SYNTHESIS OF α-ETHYLENIC KETONES

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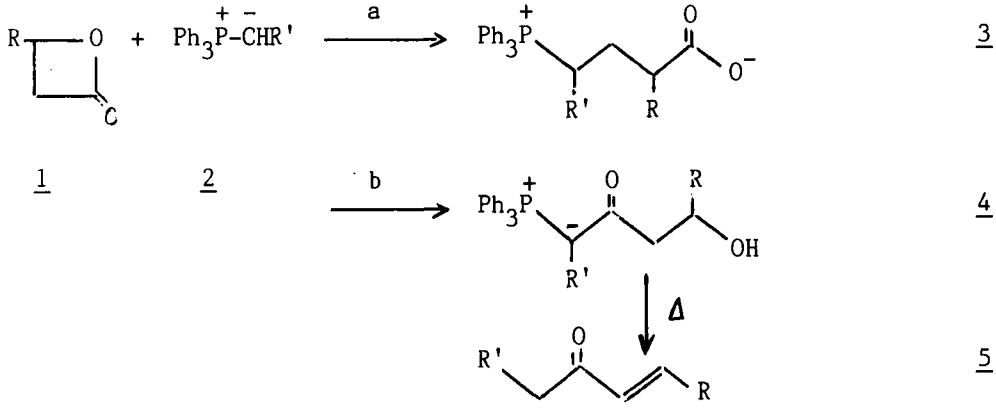
H. Kise et al [1] have shown that the reaction of β-propiolactones 1 with ylides 2 give phosphonium carboxylate betaïne 3. We now report that, carried out under different conditions, reaction of lactones 1 with the same ylides proceeds through pathway (b). Thermolysis of 4 affords α-ethylenic ketones 5. The mecanism of this new extrusion reaction of triphenylphosphine oxyde probably involves the generation of an oxaphosphene as an intermediate.



(a) ylide 2 prepared from phosphonium bromide and $NaNH_2$ in THF.
(b) ylide 2 prepared from the same salt and tBuOK in toluene.

(1) H. Kise, Y. Arase, S. Shiraishi, M. Seno and T. Asahara, J.Chem. Soc., Chem. Comm., 299 (1976)