



## Abstract

Intramolecular acylation of the  $\alpha$ -sulfinyl carbanions of the ester sulfoxides 4 has been shown to give  $\beta$ -ketosulfoxides 6 in moderate to good yields, which compounds subsequently pyrolyse to 5,5-disubstituted cyclopentenones 7. This methodology can be applied, by pyrolysis of the  $\beta$ -ketosulfoxides 11 (prepared from intramolecular acylation of  $\alpha$ -sulfinyl carbanions of the amide sulfoxides 10) to the high yield synthesis of 5-monosubstituted cyclopentenones 12, which are useful intermediates in the synthesis of natural products. Moreover, the sulfoxides 18 gave the  $\beta$ -ketosulfoxides 20 by the same reaction, which upon pyrolysis afforded the cyclohexenone derivatives 22. Unfortunately, the phenol annulation reaction starting from the amide sulfoxides 19, and leading to the compounds 23 via intramolecular acylation reaction of the  $\alpha$ -sulfinyl carbanions, gave less satisfactory results.



