SYNTHESIS OF FUNCTIONALIZED BENZOFURANS FROM PARA-QUINONE METHIDES VIA PHOSPHA-1,6-ADDITION/O-ACYLATION/WITTIG REACTION

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2,3-Disubstituted benzofuran skeleton can be found in numerous natural products\(^1\) and functional molecules in material chemistry.\(^2\) Owing to the wide utility of medicinal properties of benzofurans, the desire for new method for the synthesis of benzofurans attracts chemist’s great attention. In traditional protocols, there are many reports using metal-catalyzed strategies to synthesize benzofurans.\(^3\) However, the use of expensive metal catalysts or harsh condition make such protocols less attractive. Therefore, developing a new method, especially under non-metal assisted condition would be highly desirable.

In this work, we demonstrate a strategy via phospha-1,6-addition to para-quinone methides /o-acylation/Wittig reaction to synthesize functional benzofurans in mild condition.