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## Proficient protocol for the epoxidation of aldehydic carbonyl template using substituted sulfur ylides

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Three membered rings are highly strained compound and valuable synthetic intermediates tools in the organic synthesis. In which epoxides, aziridines and cycloalkanes provide a virtual backbone of organic synthesis. An efficient and mild protocol has been developed for the synthesis of epoxides using sulfur ylide is described. We have developed a novel protocol for the transformation of aldehydes into oxiranes in good yield. Carboxymethyl betaine was heated at 60o C and decarboxylates to produce sulfur ylide. Sulfur ylides are known to transfer alkylidene groups to unsaturated systems containing multiple bonds. We have demonstrated that carboxymethyl betaine is an effective alkylidene transfer agent. Our reported method was found to be best with the carbonyl derivatives of electron rich as well as electron deficient aryl aldehydes and also observed high levels of conversion as well as isolated yields of oxiranes. The overall process involves thermally induced decarboxylation of aryl sulfonium betaine results in formation of sulfur ylide and the efficiency of ylide generation and trapping has been evaluated via methylenide transfer to a range of aldehydes to form epoxides. In situ generation of betaine in the presence of an aldehyde successfully afforded the desired oxirane in moderate yield.

### Biography

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