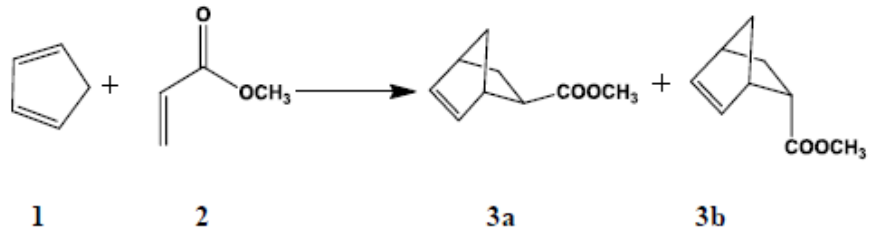
DES FOR PHARMACOPEIA IMPURITY SYNTHESIS

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Deep eutectic mixtures (DESs) are regarded as a new genre of environment benign, biodegradable green and cost effective option to VOCs and ionic liquids. Recently discovered water miscible nature of DESs meets its applications in chemical and industrial process. The addition of water to DESs modifies the specific properties of DESs which tune them for specific applications. In the present work synthetic efficiency of three DESs and their choline based 'green hybrid' of water-DESs.

In the search for environmentally benign solvent media, a new class of solvents composed of mixtures of carbohydrates with urea or methylated urea has been noted to be effective in enhancing the reaction rates of a bimolecular organic reaction. In the present study, Diels-Alder reaction is used as probe reaction for pharmacopeia impurity synthesis and the solvent effect on reaction has been analysed through kinetic study.



Scheme 1. The reaction of cyclopentadiene (**1**) with methyl acrylate (**2**)

