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Title: Synthesis of O,S-Containing Polycycles via One-Pot Michael Addition-Cycloacetalisation Cascade

Authors: Bankar, S.K. (/jspui/browse?type=author&value=Bankar%2C+S.K.) Shirke, R.P. (/jspui/browse?type=author&value=Shirke%2C+R.P.)

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Keywords: cascade reactions

> heterocycles Lewis acids natural products pyranones

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An efficient diversity-oriented approach for the synthesis of previously unknown di-, tri-, tetra- and Abstract:

spirocyclic pyrano-1,4-dioxinones, pyrano-1,4-dithiinones and pyrano-1,4-oxathiinones from readily available starting compounds has been described. Cascade Michael addition-cycloacetalisation of acetoxy-, alkoxy-, and aryloxypyranones and 1,2-dinucleophiles under mild Lewis acidic conditions provides a direct access to oxygen and sulfur-containing complex heterocycles. Mechanistic aspects of the cascade process were elucidated in light of experimental facts. The methodology described herein shows high promise for the synthesis of several bioactive natural products as well

as pharmaceutically important compounds.

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