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Tetrahedron Letters

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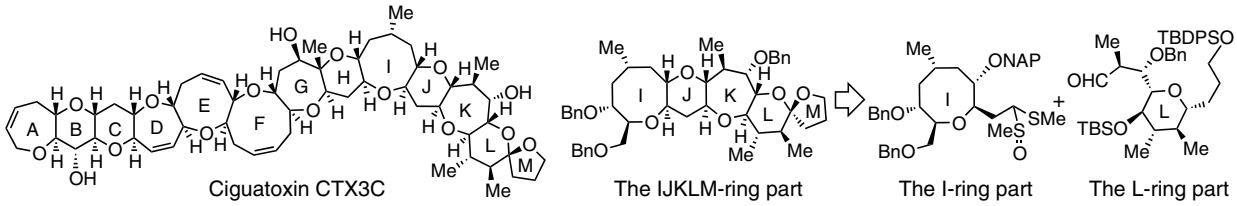
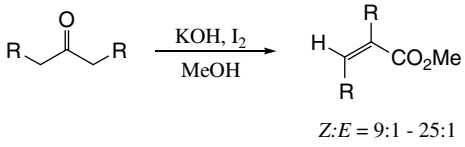
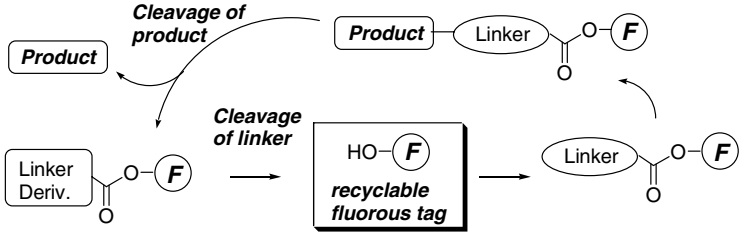
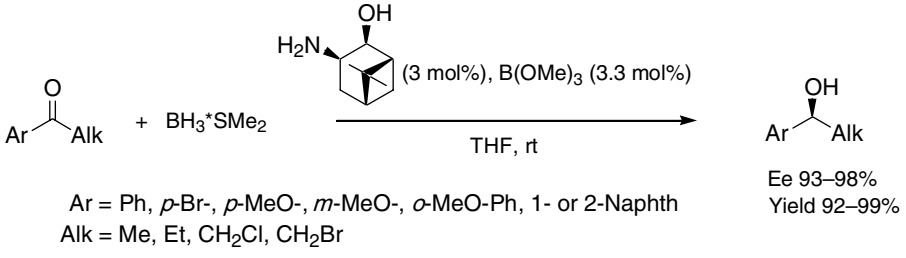
Contents

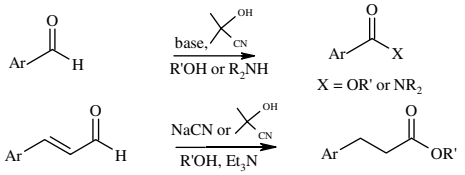
COMMUNICATIONS

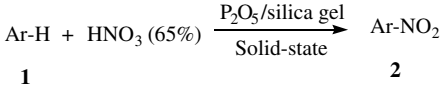


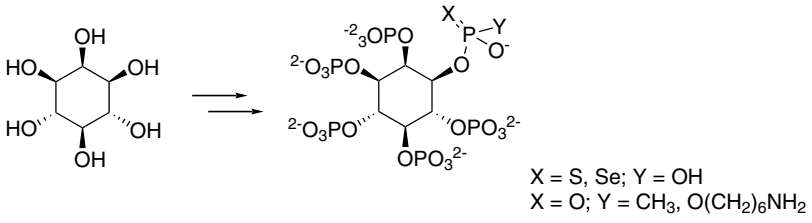


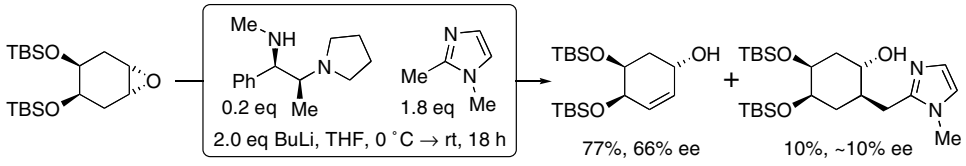


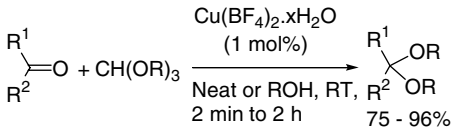




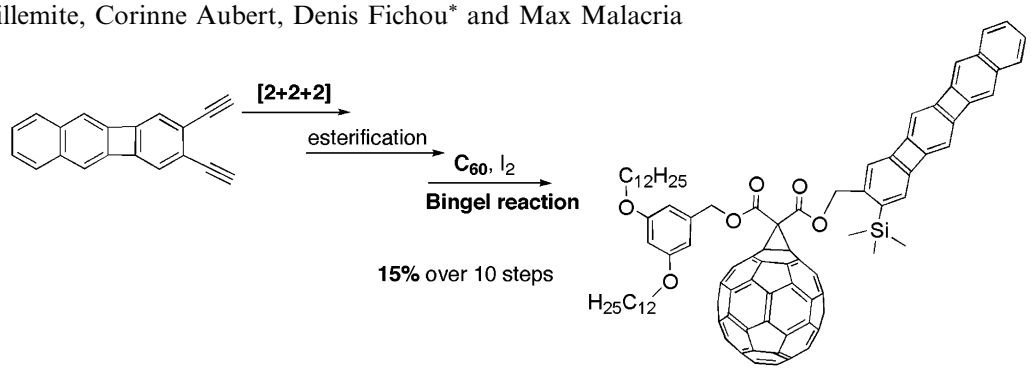


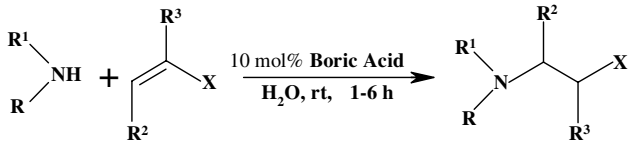




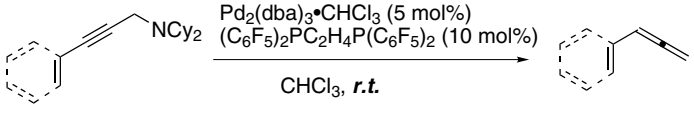


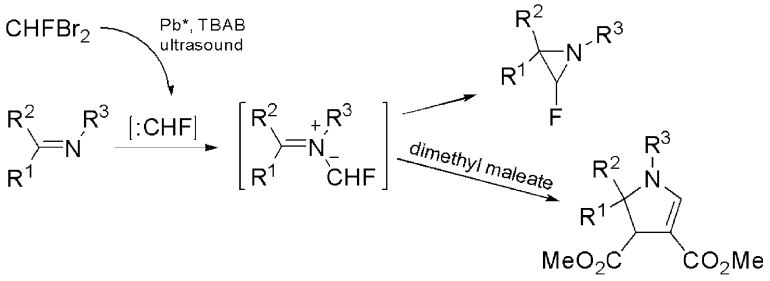
Commercially available copper(II) tetrafluoroborate hydrate efficiently catalyses dimethyl/diethyl acetal formation from aldehydes and ketones by reaction with trimethyl/triethyl orthoformate in high yields and in short period at room temperature.

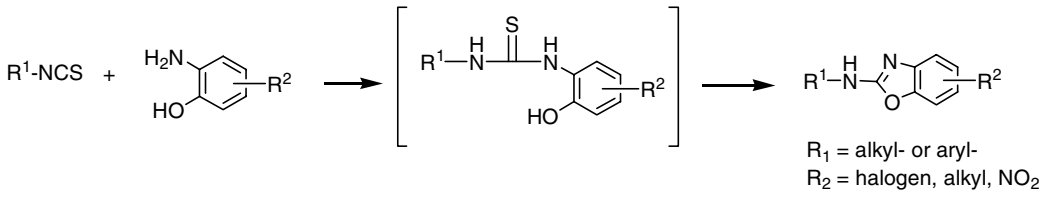


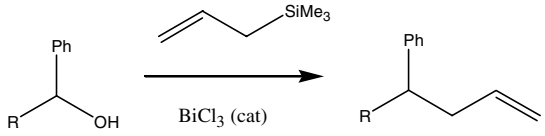


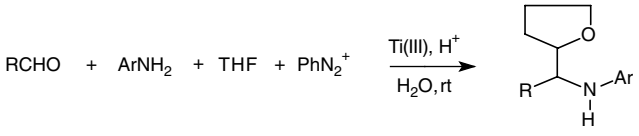
R = alkyl; R^1= alkyl, H ; R^2 = R^3 = alkyl, H
X = CO_2Me, COMe, CN, $CONH_2$

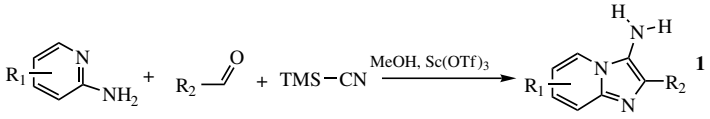


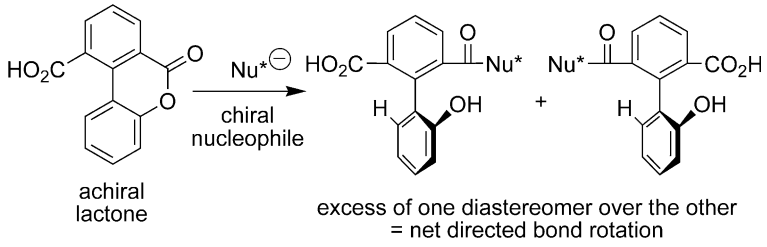


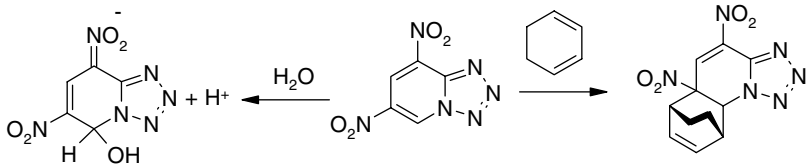


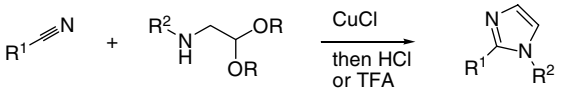




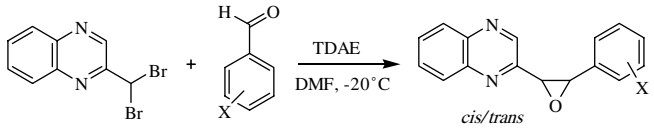




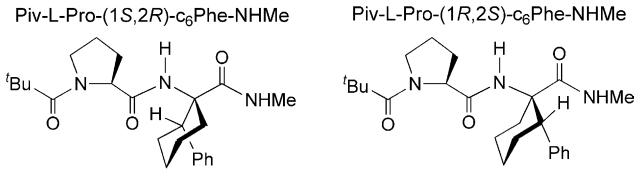




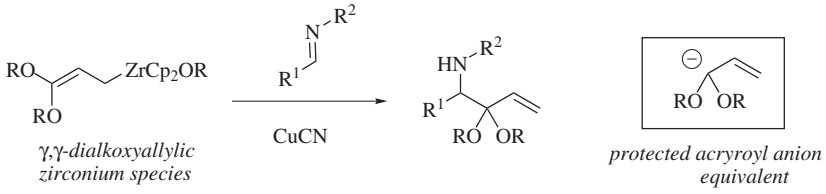
Expedient and practical new methodology for the synthesis of substituted imidazoles was developed to provide rapid access to a variety of 2-substituted, 1,2-disubstituted and 1,2,4-trisubstituted imidazoles by the direct CuCl-mediated reaction of nitriles with α-amino acetals in an intermolecular as well as intramolecular fashion.

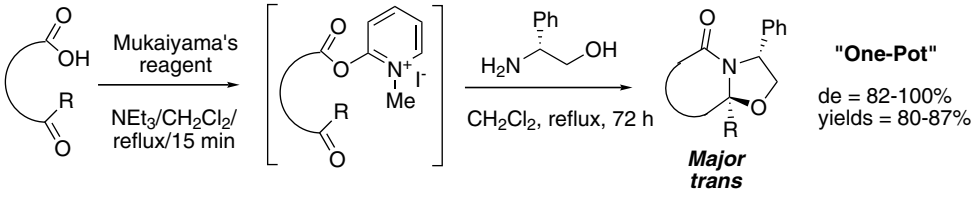


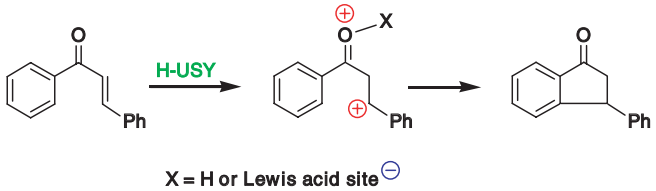
We report herein the reaction of 2,2-dibromomethylquinoxaline with aromatic aldehydes in the presence of TDAE. These reactions lead to a mixture of *cis*/*trans*-isomers of corresponding oxiranes.



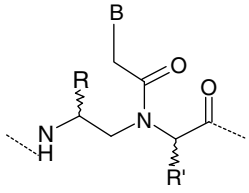
The model dipeptides incorporating the *trans* cyclohexane analogues of phenylalanine accommodate β-turn types that depend on the aromatic side-chain disposition, which is fixed by the stereochemistry of the cyclohexane ring.

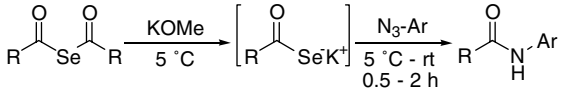






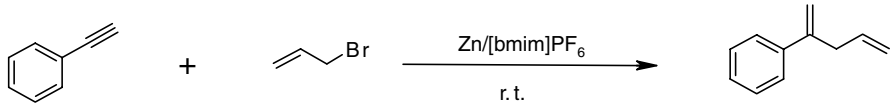
Available solid acids such as HUSY–zeolite, sulfated zirconia or heteropolyacid, $H_3PW_{12}O_{40}$ are successfully applied instead of superacids in cyclization of aryl vinyl ketones into 1-indanones. The cases, when the effective excess of acidic sites of the solid is required to carry out the reaction, are interpreted in terms of key dicationic (superelectrophilic) intermediacy.

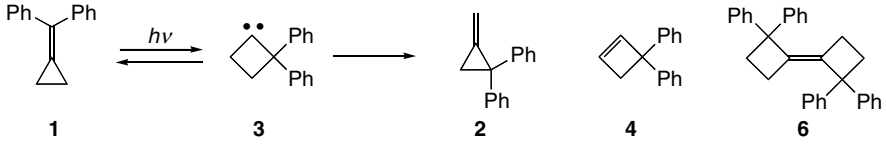


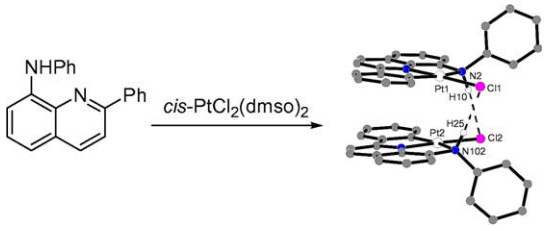


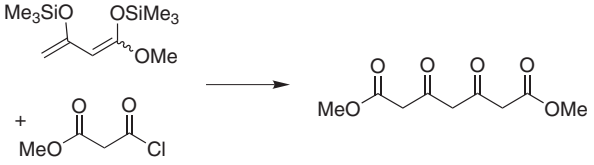
A new method of amide bond formation was developed through the reaction of potassium selenocarboxylates with aromatic azides at room temperature. Excellent yields were obtained when electron deficient aromatic azides were used.

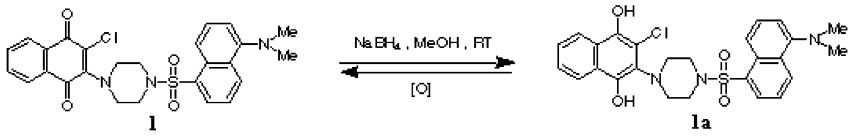
The naturally occurring, bioactive spiroacetals aculeatins A and B have been synthesized for the first time in enantiopure form. A previous configurational assignment has been corrected.

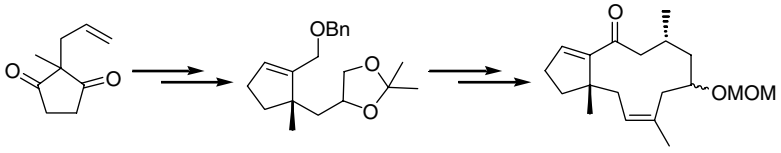


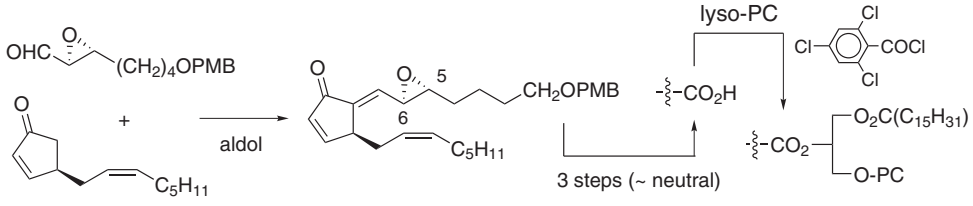


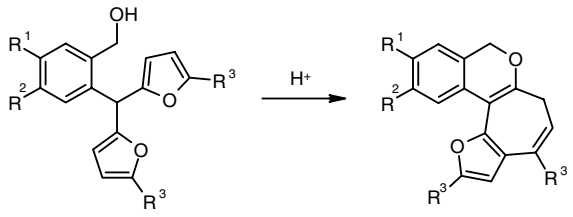




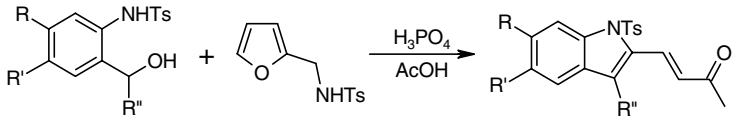








A new approach toward the synthesis of 1*H*-isochromenes based on the recyclization of the furan ring in the corresponding *ortho*-hydroxymethylbenzylfurans is described.



A new approach to the synthesis of 4-(2-indolyl)-3-buten-2-ones is described based on condensation of 2-tosylaminobenzyl alcohols with *N*-tosylfurfurylamine.

OTHER CONTENTS

*Corresponding author
ⓘ+ Supplementary data available via ScienceDirect

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