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CONTENTS

Advances in Contemporary Research

1301 A brief review of Cherylline synthesis

The alkaloid cherylline is an optically active naturally occurring, 4-phenyl-1,2,3,4-tetrahydroisoquinoline alkaloid, isolated from *Crimon powellii*, Amaryllidaceae plant. There are many ways for cherylline synthesis. In this short review is described the different methods for synthesis of the alkaloid cherylline.

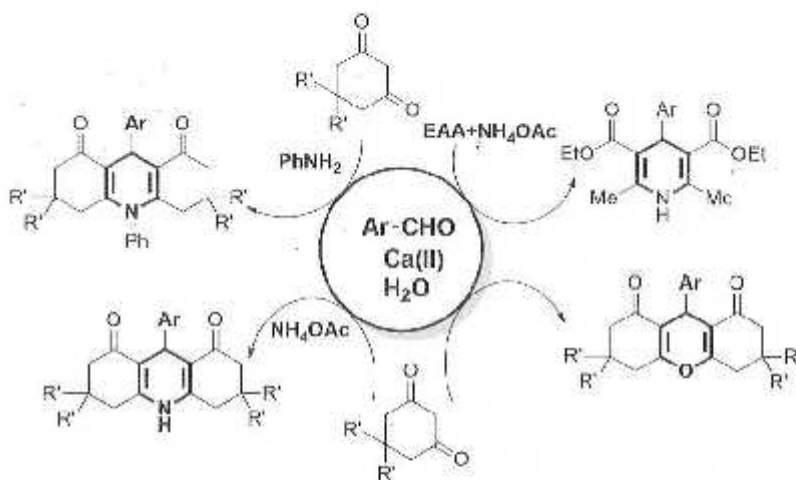
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Papers

1321 Alkaline earth metal catalyzed, one-pot, multi-component approach for the synthesis of dihydropyridine, acridine and xanthene derivatives in water

Ca(II) catalyzed one-pot multi-component approach for biologically important diverse heterocyclic compounds such as hexahydroxanthene diones, dihydropyridines and octahydroacridine diones has been described in water. Use of environmentally benign catalyst, water as the green solvent, high yields, and substrate diversity are the highlights of the current method.

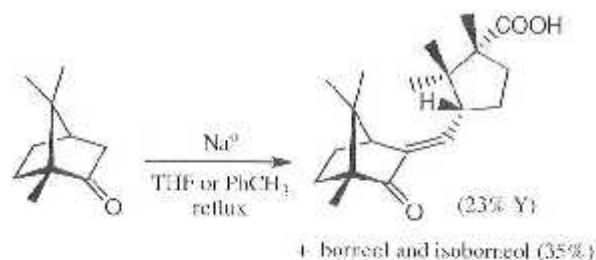


Srinivasarao Yaragorla*, Garima Singh & Abhishek Pareek

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1327 An unexpected reaction of camphor with sodium metal

Reaction of camphor with sodium metal at elevated temperature in refluxing THF or toluene furnishes an unexpected product. The product has been identified by spectral analysis and its structure confirmed by single crystal X-ray diffraction study. A preliminary mechanistic explanation has been suggested to explain this reaction.

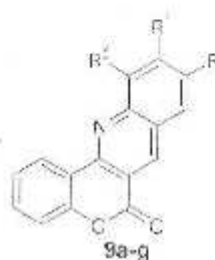
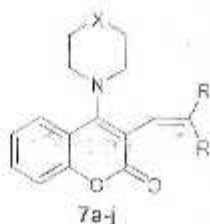
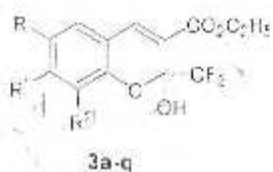


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1332 Carbohydrate hydrolyzing enzymes inhibitory and free radical scavenging activities of substituted 2*H*-chromene-3-carboxylates, 2*H*-chromenyl Knoevenagel derivatives and 6*H*-chromenoquinolinones

Three series of compounds namely ethyl 2-hydroxy-2-(trifluoromethyl)-2*H*-chromene-3-carboxylates **3a-q**, 2*H*-chromenyl Knoevenagel derivatives **7a-j** and 6*H*-chromenoquinolinones **9a-g** have been prepared. The synthesized compounds **3a-q**, **7a-j** and **9a-g** have been screened for anti-oxidant and anti-diabetic activity. Compound **3i** shows the most potent ABTS inhibitory activity when compared to trolox. Compounds **3b**, **3d**, **3j** and **3l** show α-amylase inhibitory activity.



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Notes

- 1342 **On the structure of trioleinamate from *Verbesina persicifolia***

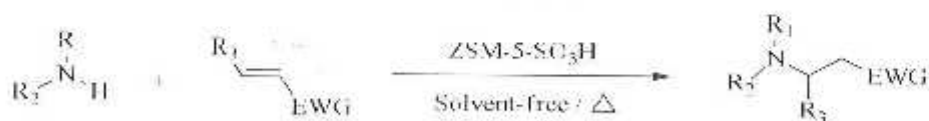
The structure of eudesmanetriol mono-cinnamate, isolated from the Mexican plant *Verbesina persicifolia*, has been established using high resolution NMR (1D, 2D) and mass spectroscopy. The identification of the C-4 asymmetric center configuration corrects some previous assignments reported for tri-, mono-cinnamates from *Verbesina*.

Ada Vazquez Cadanedo, Eduardo Díaz-T, Christopher K. Jankowski, Etienne Dako, Jeremie Doiron & Manuel Jiménez-E*

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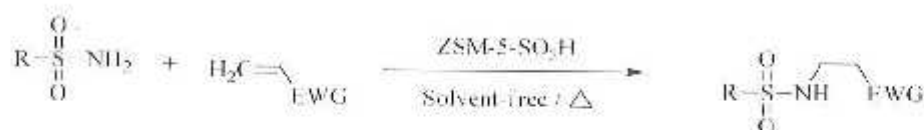
- 1346 **The zeolite ZSM-5-SO₃H catalyzed aza-Michael addition of amines and sulfonamides to electron-deficient alkenes under solvent-free conditions**

Aza-Michael addition of aromatic and aliphatic amines and sulfonamides to α,β -unsaturated esters, ketones and nitriles has been developed using the zeolite ZSM-5-SO₃H as catalyst under solvent-free conditions.



R₁, R₂, R₃ = H, CH₃, Aryl

EWG = CN, COOBu, COOEt, COCH₃, C(=O)Ph



R = Me, Phenyl, CH₂Ph

EWG = COOBu, COOEt

Saba Mohammadi Douraki & Ahmad Reza Massah*

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- 1350 **ZnO Nanoparticles: An efficient green reusable catalyst for the synthesis of 3-formyl benzopyranones chalcones by Claisen-Schmidt reaction under solvent-free condition**

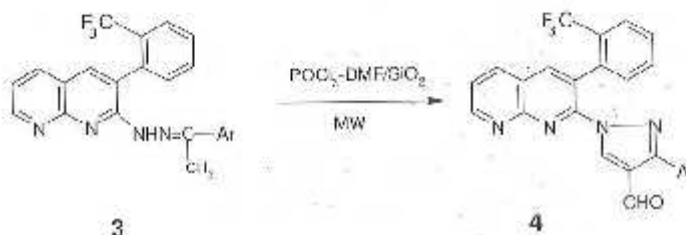
An efficient environmentally benign protocol is reported for the production of benzopyranes based chalcones. In this protocol, yield is very high, reaction time is very small, work up is very simple, catalyst can be recycled, and it is free of any hazardous by-product formation during workup.

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1355 Environmentally benign synthesis, antibacterial and anti-inflammatory activities of 3-aryl-1-(3-(2-(trifluoromethyl)phenyl)[1,8]-naphthyridin-2-yl)-1H-4-pyrazolecarbaldehydes

A simple and efficient protocol for the transformation of 1-aryl-1-(3-(2-(trifluoromethyl)phenyl)[1,8]-naphthyridin-2-yl)hydrazones **3** to 3-aryl-1-(3-(2-(trifluoromethyl)phenyl)[1,8]-naphthyridin-2-yl)-1H-4-pyrazolecarbaldehydes **4** is reported under microwave irradiation utilizing POCl_3 -DMF over silica gel with high yields. The compounds **4** have been evaluated for their antibacterial and anti-inflammatory activities.



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