

Accepted Manuscript

Sulfamic acid: An efficient and recyclable solid acid catalyst for the synthesis of 4,5-dihydropyrrolo[1,2-*a*]quinoxalines

Ahmed Kamal, Korrapati Suresh Babu, S.M. Ali Hussaini, P.S. Srikanth, Moku Balakrishna, Abdullah Alarifi

PII: S0040-4039(15)00978-8
DOI: <http://dx.doi.org/10.1016/j.tetlet.2015.06.006>
Reference: TETL 46398

To appear in: *Tetrahedron Letters*

Received Date: 7 May 2015
Revised Date: 1 June 2015
Accepted Date: 3 June 2015

Please cite this article as: Kamal, A., Babu, K.S., Ali Hussaini, S.M., Srikanth, P.S., Balakrishna, M., Alarifi, A., Sulfamic acid: An efficient and recyclable solid acid catalyst for the synthesis of 4,5-dihydropyrrolo[1,2-*a*]quinoxalines, *Tetrahedron Letters* (2015), doi: <http://dx.doi.org/10.1016/j.tetlet.2015.06.006>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



Sulfamic acid: An efficient and recyclable solid acid catalyst for the synthesis of 4,5-dihydropyrrolo[1,2-*a*]quinoxalines

Ahmed Kamal,^{a*} Korrapati Suresh Babu,^a S. M. Ali Hussaini,^a P. S. Srikanth,^a Moku Balakrishna^a and Abdullah Alarifi^b

^a*Medicinal Chemistry and Pharmacology, CSIR-Indian Institute of Chemical Technology, Hyderabad-500007, India.*

^b*Catalytic Chemistry Research Chair, Chemistry Department, College of Science, King Saud University, Riyadh 11451, Saudi Arabia.*

Abstract: A simple, efficient and eco-friendly method has been developed for the synthesis of 4,5-dihydropyrrolo[1,2-*a*]quinoxalines using sulfamic acid (H₂NSO₃H, SA), a green and recyclable catalyst in water. The method employs readily available catalyst and is notable for short reaction time, operational simplicity and high yields. The catalyst can be recovered and reused without loss in activity and more importantly, the reaction uses water as a solvent which is naturally abundant and environmentally benign. Moreover, the synthesized compounds were screened for their cytotoxic potential against two human cancer cell lines.

Keywords: Dihydropyrrolo[1,2-*a*]quinoxalines, sulfamic acid, reusability, cytotoxicity.

* Corresponding authors. Tel.: +91-40-27193157; fax: +91-40-27193189;

E-mail addresses: ahmedkamal@iict.res.in

Download English Version:

<https://daneshyari.com/en/article/5262186>

Download Persian Version:

<https://daneshyari.com/article/5262186>

[Daneshyari.com](https://daneshyari.com)