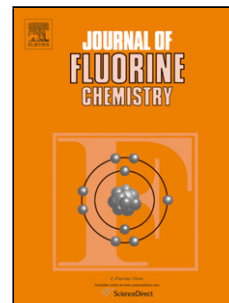


Accepted Manuscript

Title: Highly efficient Cu(I)-catalyzed trifluoromethylation of aryl(heteroaryl) enol acetates with CF_3 radicals derived from $\text{CF}_3\text{SO}_2\text{Na}$ and TBHP at room temperature

Author: Yang Lu Yaming Li Rong Zhang Kun Jin Chunying Duan



PII: S0022-1139(14)00039-6
DOI: <http://dx.doi.org/doi:10.1016/j.jfluchem.2014.01.020>
Reference: FLUOR 8267

To appear in: *FLUOR*

Received date: 7-1-2014
Revised date: 24-1-2014
Accepted date: 29-1-2014

Please cite this article as: Y. Lu, Y. Li, R. Zhang, K. Jin, C. Duan, Highly efficient Cu(I)-catalyzed trifluoromethylation of aryl(heteroaryl) enol acetates with CF_3 radicals derived from $\text{CF}_3\text{SO}_2\text{Na}$ and TBHP at room temperature, *Journal of Fluorine Chemistry* (2014), <http://dx.doi.org/10.1016/j.jfluchem.2014.01.020>

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.

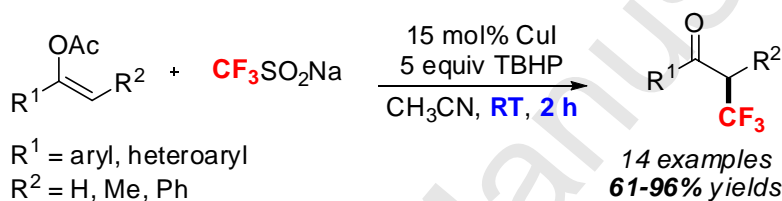
Highly efficient Cu(I)-catalyzed trifluoromethylation of aryl(heteroaryl) enol acetates with CF₃ radicals derived from CF₃SO₂Na and TBHP at room temperature

Yang Lu, Yaming Li*, Rong Zhang, Kun Jin, Chunying Duan*

State Key Laboratory of Fine Chemicals, School of Chemical Engineering, Dalian

University of Technology, Dalian 116024, China

Tel./fax: +86 411 84986295; E-mail address: ymli@dlut.edu.cn (Y. Li)



ABSTRACT: An efficient method for the Cu(I)-catalyzed synthesis of α -trifluoromethyl ketones via the addition of CF₃ to aryl(heteroaryl) enol acetates by using the readily available CF₃SO₂Na (Langlois reagent) has been developed. The reaction is experimentally simple and carried out at room temperature, providing good to excellent yields with wide functional group tolerance.

Keywords: Trifluoromethylation; Enol acetates; Synthetic methods; α -CF₃ ketone; Radical addition

1. Introduction

Trifluoromethylated compounds have been widely utilized as the important building blocks for the synthesis of pharmaceuticals, agrochemicals and specialty materials due to the stereoelectronic property of the CF₃ moiety and the increased bioavailability [1]. Therefore, it has been of great interest to develop more efficient, operationally simple and

Download English Version:

<https://daneshyari.com/en/article/7753282>

Download Persian Version:

<https://daneshyari.com/article/7753282>

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