

## Accepted Manuscript

Regioselective transition metal-free acylation of coumarins *via* cross-dehydrogenative coupling reaction of coumarins and aldehydes

Mehdi Adib, Saideh Rajai-Daryasarei, Rahim Pashazadeh, Mahnaz Tajik, Peiman Mirzaei

PII: S0040-4039(16)30730-4  
DOI: <http://dx.doi.org/10.1016/j.tetlet.2016.06.061>  
Reference: TETL 47788

To appear in: *Tetrahedron Letters*

Received Date: 9 March 2016  
Revised Date: 20 May 2016  
Accepted Date: 14 June 2016

Please cite this article as: Adib, M., Rajai-Daryasarei, S., Pashazadeh, R., Tajik, M., Mirzaei, P., Regioselective transition metal-free acylation of coumarins *via* cross-dehydrogenative coupling reaction of coumarins and aldehydes, *Tetrahedron Letters* (2016), doi: <http://dx.doi.org/10.1016/j.tetlet.2016.06.061>

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.



**Regioselective transition metal-free acylation of coumarins *via* cross-dehydrogenative coupling reaction of coumarins and aldehydes**

Mehdi Adib,<sup>\*a</sup> Saideh Rajai-Daryasarei,<sup>a</sup> Rahim Pashazadeh,<sup>a</sup> Mahnaz Tajik,<sup>a</sup> Peiman Mirzaei<sup>b</sup>

<sup>a</sup> *School of Chemistry, College of Science, University of Tehran, PO Box 14155-6455, Tehran, Iran*

<sup>b</sup> *Department of Chemistry, Shahid Beheshti University, Tehran, Iran*

**Abstract:** A transition metal-free cross-dehydrogenative coupling reaction is described for the preparation of 3-acylcoumarins. Heating a mixture of a coumarin, an aldehyde and the K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>/Aliquat 336 system in chlorobenzene at 100 °C for 8 h regioselectively afforded the corresponding 3-acylcoumarin derivatives in good to excellent yields.

**Keywords:** K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>, Aliquat 336, cross-dehydrogenative coupling, transition metal-free, coumarins, aldehydes, 3-acylcoumarins, acylation

---

<sup>\*</sup>Corresponding author. Tel./fax: +98(21)66495291; E-mail: madib@khayam.ut.ac.ir

Download English Version:

<https://daneshyari.com/en/article/5260496>

Download Persian Version:

<https://daneshyari.com/article/5260496>

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