

## Accepted Manuscript

Bismuth chloride mediated allylation of carbonyl compounds in aqueous media:  
A mechanistic investigation

B.D. Jadhav, S.K. Pardeshi

PII: S0040-4039(14)01184-8  
DOI: <http://dx.doi.org/10.1016/j.tetlet.2014.07.031>  
Reference: TETL 44874

To appear in: *Tetrahedron Letters*

Received Date: 29 May 2014  
Revised Date: 7 July 2014  
Accepted Date: 8 July 2014



Please cite this article as: Jadhav, B.D., Pardeshi, S.K., Bismuth chloride mediated allylation of carbonyl compounds in aqueous media: A mechanistic investigation, *Tetrahedron Letters* (2014), doi: <http://dx.doi.org/10.1016/j.tetlet.2014.07.031>

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.

## Bismuth chloride mediated allylation of carbonyl compounds in aqueous media: A mechanistic investigation

B. D. Jadhav and S.K. Pardeshi\*

Department of Chemistry, University of Pune, Ganeshkhind,  
Pune-411007(INDIA)

\* Corresponding author. Tel.: +91 020 25601225 Extn. 514; Fax: +91 020 25691728.

E-mail: [skpar@chem.unipune.ac.in](mailto:skpar@chem.unipune.ac.in)(S.K.Pardeshi)

### Abstract

The bismuth chloride mediated, aluminum promoted aqueous Barbier type coupling of allyl unit with carbonyl compounds which gives the corresponding homoallyl alcohol is studied. The transient in situ generated allylbismuth (III) bromide intermediate was studied by  $^1\text{H}$ NMR and GCMS for mechanistic study of allylation. The role of solvent, temperature and additives in their formation is also studied. The results show that the most reactive intermediate species is  $\text{CH}_2=\text{CHCH}_2\text{BiBr}_2$  which mediates allylation of aldehydes and ketones with different substituents with good yields.

**Keywords:** Allylation, Allyl bromide, Bismuth chloride, organobismuth intermediate, homoallyl alcohol

Download English Version:

<https://daneshyari.com/en/article/5261494>

Download Persian Version:

<https://daneshyari.com/article/5261494>

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