

Accepted Manuscript

The Impact of Asymmetric Organocatalysis in Dearomatization and Aromatization of Carbocycles: Increasing Molecular Complexity and Diversity

Loïc Pantaine, Xavier Moreau, Vincent Coeffard, Christine Greck

PII: S0040-4039(16)30525-1
DOI: <http://dx.doi.org/10.1016/j.tetlet.2016.05.012>
Reference: TETL 47630

To appear in: *Tetrahedron Letters*

Received Date: 28 March 2016
Revised Date: 25 April 2016
Accepted Date: 4 May 2016



Please cite this article as: Pantaine, L., Moreau, X., Coeffard, V., Greck, C., The Impact of Asymmetric Organocatalysis in Dearomatization and Aromatization of Carbocycles: Increasing Molecular Complexity and Diversity, *Tetrahedron Letters* (2016), doi: <http://dx.doi.org/10.1016/j.tetlet.2016.05.012>

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.

The Impact of Asymmetric Organocatalysis in Dearomatization and Aromatization of Carbocycles: Increasing Molecular Complexity and Diversity

Loïc Pantaine, Xavier Moreau, Vincent Coeffard,* Christine Greck

Institut Lavoisier Versailles, UMR CNRS 8180, Université de Versailles-St-Quentin-en-Yvelines, 45 Avenue des États-Unis, 78035 Versailles cedex, France.

Corresponding author. E-mail address : vincent.coeffard@uvsq.fr (V. Coeffard)

Abstract

The combination of asymmetric organocatalysis with either making or breaking aromaticity, in a single vessel, has known a rapid development over the last decade. This is due to its success in producing complex molecular architectures efficiently while maintaining a good control over diastereo- and enantioselectivity. This digest will offer a broad summary of the advances in this field, focusing primarily on carbocycles, and will be divided into two main parts: the first will concern combining asymmetric organocatalysis with dearomatization, the second with rearomatization.

Contents

Introduction	P2
Dearomatization and asymmetric organocatalysis	P3
Aminocatalysts	P3
Phosphoric acids	P6
Hypervalent iodine	P8
Other organocatalysts	P11
Enantioselective synthesis of polyaromatic compounds	P12
Axial chirality	P12
Helical chirality	P14
Conclusion and outlook	P15

Download English Version:

<https://daneshyari.com/en/article/5266759>

Download Persian Version:

<https://daneshyari.com/article/5266759>

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