

## Author's Accepted Manuscript

*Monascus* pigments production, composition, bioactivity and its application: A review

Clement Agboyibor, Wei-Bao Kong, Dong Chen, Ai-Mei Zhang, Shi-Quan Niu



[www.elsevier.com/locate/bab](http://www.elsevier.com/locate/bab)

PII: S1878-8181(18)30083-5  
DOI: <https://doi.org/10.1016/j.bcab.2018.09.012>  
Reference: BCAB869

To appear in: *Biocatalysis and Agricultural Biotechnology*

Received date: 23 January 2018  
Revised date: 29 August 2018  
Accepted date: 11 September 2018

Cite this article as: Clement Agboyibor, Wei-Bao Kong, Dong Chen, Ai-Mei Zhang and Shi-Quan Niu, *Monascus* pigments production, composition, bioactivity and its application: A review, *Biocatalysis and Agricultural Biotechnology*, <https://doi.org/10.1016/j.bcab.2018.09.012>

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 galley proof before it is published in its final citable 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.

***Monascus* pigments production, composition, bioactivity and its application: A review**

Clement Agboyibor§, Wei-Bao Kong#, Dong Chen, Ai-Mei Zhang and Shi-Quan Niu

College of Life Science, Northwest Normal University, Lanzhou 730070, China

§ agbeclement@yahoo.com Tell: +86-1391-9383767

# corresponding author: kwbao@163.com Tell: +86-931-7971912

**Abstract**

*Monascus* species produce useful secondary metabolite, *Monascus* pigments (MPs). They are widely used in food industry as a color intensifier, food additives and nitrite substitute in the meat product. MPs are also reported to have the potential for therapeutic use and used as a dye in cosmetic and textile industries. This paper reviews the production, composition, bioactivity, utilization of MPs, the citrinin and methods of eliminating citrinin from MPs were also discussed. MPs possess antioxidant properties, immunosuppressive properties, teratogenicity, and antimicrobial. Notwithstanding all these useful characteristics, it has been discovered that *Monascus* species co-produce citrinin and current studies on *Monascus* focus on how to minimize or eliminate citrinin from the useful pigment to improve quality and safety, several methods have been developed, including, detoxification of citrinin, regulation of gene, manipulation of fermentation conditions and use of nanoparticles for production of citrinin free MPs.

**Keywords:** *Monascus* pigments; composition; bioactivity; application; citrinin

**1. Introduction**

Download English Version:

<https://daneshyari.com/en/article/11007650>

Download Persian Version:

<https://daneshyari.com/article/11007650>

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