

Accepted Manuscript

Dioximes: Synthesis and Biomedical Applications

Mohamed A. Motaleb, Adli A. Selim

PII: S0045-2068(18)30886-1

DOI: <https://doi.org/10.1016/j.bioorg.2018.10.011>

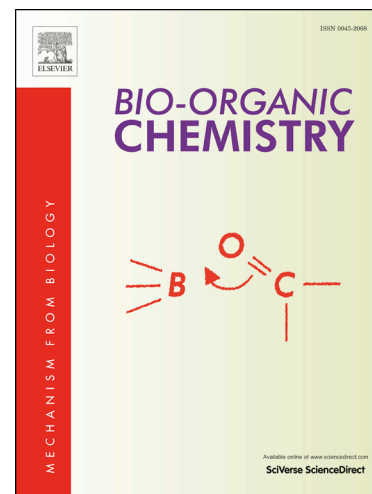
Reference: YBIOO 2545

To appear in: *Bioorganic Chemistry*

Received Date: 16 August 2018

Revised Date: 4 October 2018

Accepted Date: 5 October 2018



Please cite this article as: M.A. Motaleb, A.A. Selim, Dioximes: Synthesis and Biomedical Applications, *Bioorganic Chemistry* (2018), doi: <https://doi.org/10.1016/j.bioorg.2018.10.011>

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.

Dioximes: Synthesis and Biomedical Applications

Mohamed A. Motaleb^a, Adli A. Selim^{a,*}

^a Labeled Compounds Department, Hot Laboratories Center, Atomic Energy Authority, P.O. Box 13759, Cairo, Egypt

* Corresponding author.

E-mail address:

adli_a_selim@yahoo.com (Adli A. Selim).

ABSTRACT

The selective properties of dioxime compounds were discovered and outlined in the beginning of 20th century by Tschugaeff [L.Z. Tschugaeff, Z. Anorg. Allgem. Chem. 46 (1905) 144]. Dioximes have special properties as analytical reagents for transition metals. Dioximes complexation properties with metals were carried out by many investigations and these complexations showed a wide range of applications such as antimicrobial and theranostic agents. This review will provide general synthetic methods of oximes especially dioximes and brief overview on the applications of dioximes (applications of their metal complexes).

Keywords: Dioximes; Synthesis; Imaging; Anticancer; Antimicrobial.

1. Introduction

An oxime is a chemical compound belonging to the imines, with the general formula $R_1R_2C=NOH$ where R_1 is an organic side-chain and R_2 may be hydrogen, forming an aldoxime, or another organic group, forming a ketoxime. The oxime name - dates back to the 19th century-derived from a combination of the words oxygen and imine [1].

Oximes were characterized by an amphoteric group ($C=NOH$) because it contains a mildly acidic hydroxyl group and a slightly basic nitrogen atom [1]. The oximes aliphatic group is resistant to the process of

Download English Version:

<https://daneshyari.com/en/article/11263250>

Download Persian Version:

<https://daneshyari.com/article/11263250>

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