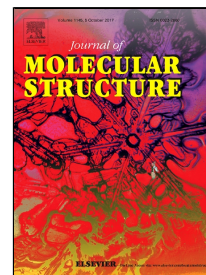


Accepted Manuscript

Synthesis and structural analysis of 3-phenylethyl-2,4(1*H*,3*H*)-quinazolinediones

Rodolfo Quevedo, Yormari Vélez, Adrián Pérez-Redondo



PII: S0022-2860(17)30919-5
DOI: 10.1016/j.molstruc.2017.06.138
Reference: MOLSTR 24024
To appear in: *Journal of Molecular Structure*

Received Date: 02 June 2017
Revised Date: 30 June 2017
Accepted Date: 30 June 2017

Please cite this article as: Rodolfo Quevedo, Yormari Vélez, Adrián Pérez-Redondo, Synthesis and structural analysis of 3-phenylethyl-2,4(1*H*,3*H*)-quinazolinediones, *Journal of Molecular Structure* (2017), doi: 10.1016/j.molstruc.2017.06.138

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.

Synthesis and structural analysis of 3-phenylethyl-2,4(1*H*,3*H*)-quinazolinediones

Rodolfo Quevedo^{a*}, Yormari Vélez^a and Adrián Pérez-Redondo^b

^a*Universidad Nacional de Colombia, Sede Bogotá, Facultad de Ciencias, Departamento de Química, Carrera 30 No. 45-03, Bogotá, Colombia*

^b*Departamento de Química Orgánica y Química Inorgánica, Universidad de Alcalá, 28805 Alcalá de Henares-Madrid, Spain*

Abstract

This article presents the unexpected synthesis of 3-phenylethyl-2,4(1*H*,3*H*)-quinazolinediones by means of oxidative expansion of the 3-phenylethylimino-2-indolinone ring promoted by sodium borohydride. The ¹H-NMR spectroscopic patterns showed the presence of two conformational isomers in equilibrium, the first was a staggered conformation and the second was a gauche structure. The crystal structure of 3-phenylethyl-2,4(1*H*,3*H*)-quinazolinedione revealed a staggered conformation with the quinazoline fragment and the phenyl ring in *anti*-arrangement. The molecules of quinazolinedione are associated in centrosymmetric dimers through two N-H...O hydrogen bonds between the NH moieties and the adjacent carbonyl groups.

Keywords

Ring expansion

Oxidative cleavage

Isatin

Quinazolinedione

Schiff base

Download English Version:

<https://daneshyari.com/en/article/5161061>

Download Persian Version:

<https://daneshyari.com/article/5161061>

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