

Accepted Manuscript

Synthesis, characterization and anticancer activity of novel ferrocene containing quinolinones: 1-Allyl-2-ferrocenyl-2,3-dihydroquinolin-4(1*H*)-ones and 1-allyl-2-ferrocenylquinolin-4(1*H*)-ones

Anka Pejović, Józef Drabowicz, Marcin Cieslak, Julia Kazmierczak-Baranska, Karolina Królewska-Golińska

PII: S0022-328X(18)30696-X

DOI: [10.1016/j.jorganchem.2018.08.004](https://doi.org/10.1016/j.jorganchem.2018.08.004)

Reference: JOM 20531

To appear in: *Journal of Organometallic Chemistry*

Received Date: 20 April 2018

Revised Date: 2 August 2018

Accepted Date: 7 August 2018

Please cite this article as: A. Pejović, J. Drabowicz, M. Cieslak, J. Kazmierczak-Baranska, K. Królewska-Golińska, Synthesis, characterization and anticancer activity of novel ferrocene containing quinolinones: 1-Allyl-2-ferrocenyl-2,3-dihydroquinolin-4(1*H*)-ones and 1-allyl-2-ferrocenylquinolin-4(1*H*)-ones, *Journal of Organometallic Chemistry* (2018), doi: 10.1016/j.jorganchem.2018.08.004.

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, characterization and anticancer activity of novel ferrocene containing quinolinones: 1-allyl-2-ferrocenyl-2,3-dihydroquinolin-4(1*H*)-ones and 1-allyl-2-ferrocenylquinolin-4(1*H*)-ones

Anka Pejović,^{*a} Józef Drabowicz,^{b,c} Marcin Cieslak,^{**d} Julia Kazmierczak-Baranska,^d Karolina Królewska-Golińska^d

^aDepartment of Chemistry, Faculty of Science, University of Kragujevac, R. Domanovića 12, 34000 Kragujevac, Serbia.

^bThe Institute of Chemistry, Environmental Protection and Biotechnology, Faculty of Mathematics and Natural Sciences, The Jan Długosz University in Częstochowa, Armii Krajowej 13/15, 42-218, Częstochowa.

^cDepartment of Heteroorganic Chemistry, Centre of Molecular and Macromolecular Studies, Polish Academy of Sciences, Sienkiewicza 112, 90-363 Łódź, Poland.

^dDepartment of Bioorganic Chemistry, Centre of Molecular and Macromolecular Studies, Polish Academy of Sciences, Sienkiewicza 112, 90-363 Łódź, Poland.

E-mail address: apejovic@kg.ac.rs (A. Pejović) mjcieslak@gmail.com (M. Cieslak)

Abstract: A two new series of ferrocene containing quinolinones – 1-allyl-2-ferrocenyl-2,3-dihydroquinolin-4(1*H*)-ones and 1-allyl-2-ferrocenylquinolin-4(1*H*)-ones – were prepared and characterized by standard spectroscopic techniques and cyclic voltammetry. The *in vitro* antitumor activity of all synthesized compounds was investigated against Human Cervix Carcinoma (HeLa), Chronic Myelogenous Leukemia (K562) and normal endothelial (HUVEC) cell lines using the MTT method. Quinolone derivative **5c** exhibited the highest cytotoxic activity in the cell growth inhibition of HeLa cell line while **5f** was the most toxic against K562 cells.

Key words: Ferrocene, Quinolinones, 2,3-Dihydroquinolin-4(1*H*)-ones, Quinolin-4(1*H*)-ones, Electrochemistry, Anticancer activity

* Corresponding author. e-mail: apejovic@kg.ac.rs

** Corresponding author. e-mail: mjcieslak@gmail.com

Download English Version:

<https://daneshyari.com/en/article/7755676>

Download Persian Version:

<https://daneshyari.com/article/7755676>

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