Full Paper

Reference Object Identifier – ROI: jbc-02/15-42-4-61 The article is published on materials of the report on "International Scientific Forum Butlerov Heritage – 2015". http://foundation.butlerov.com/bh-2015/ (English Preprint) Submitted on March 23, 2015.

Synthesis of ferrocene-containing 4,6-disubstituted 2-(1H-Pyrrole-1-yl)pyrimidines

© Alexandra D. Antuvjeva,¹⁺ Tatiana V. Shavrina,² Elena V. Shklyaeva,^{2,3} and Georgy G. Abashev^{1,2}*⁺

¹Laboratory of Active Reagents' Synthesis. Institute of Technical Chemistry, Russian Academy of Sciences, Ural Division. Academician Korolev St., 3. Perm, 614990. Russia. Phone: +7 (342) 237-82-89.

Email: gabashev@psu.ru 2

² Department of Organic Chemistry. Perm State University. Bukireva St., 15. Perm, 614990. Russia.

Phone: +7 (342) 239-66-12. Email: seshurov@yandex.ru

³ Laboratory of Organic Semiconductors. Natural Scientist Institute. Perm State University.

Genkel St., 4. Perm, 614990. Russia. Email: gabashev@psu.ru

*Supervising author; ⁺Corresponding author

Keywords: ferrocene, 2-aminopyrimidine, 2-(2-pyrrole-1-yl)pyrimidine, electrochemical oxidation, bridge structures.

Abstract

There are several key areas of ferrocene-containing compounds application in the chemistry of materials: ferrocene-containing chemosensors; electroconducting compounds, electro- and photochromic compounds; ferrocene-containing metal complexes; ferrocene-containing liquid crystal compounds; polymers with ferrocene moieties; the surfaces chemically modified with compounds including ferrocene fragments. The structure of these compounds often contains heterocycles, in particular azines, such as pyridines, pyrimidines, guinolines, triazines. The paper submitted here includes the material concerning synthesis and electrochemical properties of newly substituted pyrimidines, which central pyrimidine core is surrounded with several electron donating cyclic moieties, one of which is ferrocene.