Subsection: Organic Chemistry.

Registration Code of Publication: 14-39-7-71

Publication is available for discussion in the framework of the on-line Internet conference "Butlerov readings". http://butlerov.com/readings/ (English Preprint)

Contributed: October 29, 2014.

Synthesis and antibacterial activity of 5-aryl-4-aroyl-3hydroxy-1-(4-ethoxycarbonylphenyl)-3-pyrroline-2-ones

© Vladimir L. Gein, 1* Anastasia V. Shmakova, 1 Olga V. Bobrovskaya, 1 Lyudmila F. Gein,² and Tatiana F. Odegova¹

¹Department of General and Organic Chemistry. Perm State Pharmaceutical Academy. Polevaya St., 2. Perm, 614990. Russia. Phone: +7 (834) 282-58-30. E-mail: geinvl48@mail.ru

² Department of General and Bioorganic Chemistry. Perm State Medical Academy. Petropavloskaya St., 26. Perm, 614000. Russia. Phone: +7 (834) 282-46-38.

*Supervising author; *Corresponding author

Keywords: 3-hydroxy-3-pyrroline-2-ones, synthesis, ethyl 4-aminobenzoate, three-component reaction, antibacterial activity.

Abstract

A series of 5-aryl-4-aroyl-3-hydroxy-1-(4-ethoxycarbonylphenyl)-3-pyrroline-2-ones were synthesized by the reaction of methyl esters of aroylpyruvic acids with a mixture of ethyl 4-aminobenzoate and aromatic aldehyde. The proposed structures are confirmed by IR, ¹H NMR spectroscopy. The antibacterial activity of the synthesized compounds was studied.