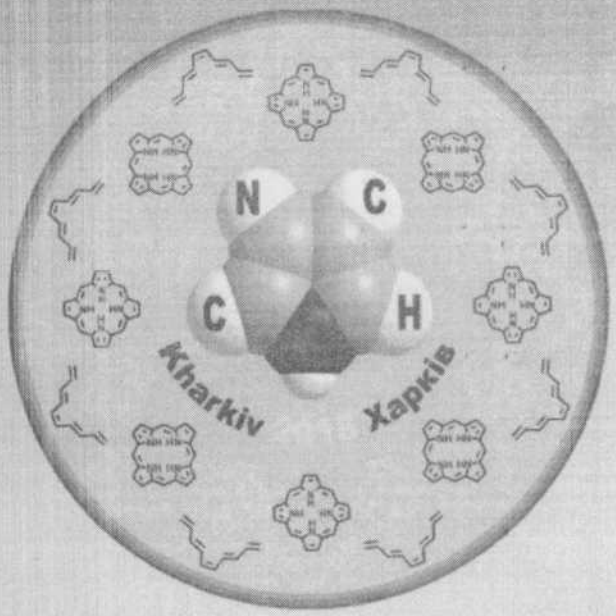
8th International Conference

"CHEMISTRY OF NITROGEN CONTAINING HETEROCYCLES"

in memoriam of Prof. Valeriy Orlov



CNCH-2018

12-16 November, 2018

Kharkiv, Ukraine

Book of Abstracts

DECARBAMOYLATION OF N-ALKOXY-N-1-(4-DIMETHYLAMINOPYRIDINIUM)UREA'S CHLORIDES AS A ROUTE TO 1-N-ALKOXYAMINO-4-DIMETHYLAMINOPYRIDINIUM'S SALTS

Shtamburg V. G. [a], Shtamburg V. V. [a], Anishchenko A. A. [b], Mazepa A. V. [c], Kravchenko S. V. [d]

[a] *Ukrainian State University of Chemical Technology, Dnipro, Ukraine,*

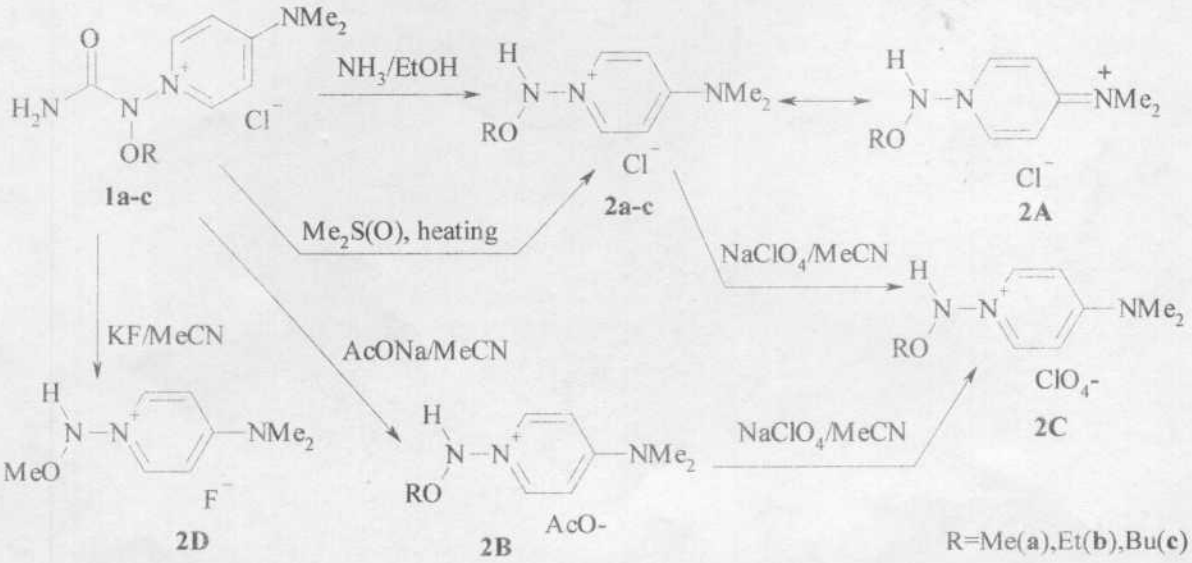
e-mail: stamburg@gmail.com,

[b] *O. Gonchar Dnipro National University, Dnipro, Ukraine*

[c] *A.V. Bogatsky Physico-Chemical Institute of NAS of Ukraine, Odessa, Ukraine*

[d] *Dnipro State Agrarian and Ecomomic University, 49600, Dnipro, Ukraine*

1-N-Alkoxyamino-4-dimethylaminopyridium's salts **2a-c** can be easily synthesized from N-alkoxy-N-1-(4-dimethylaminipyridinium)urea's chlorides **1**as by action of basic reagents (such as NH_3/EtOH, KF/MeCN or AcONa/MeCN) (route I), as by decarbamoylation at heating in dimethylsulphoxide (route II). In the last case nature of N-alkoxy moiety takes great influence on the decarbamoylation ease.



XRD study of compounds **2a** and **2b** revealed high degree of pyramidality of central nitrogen atom in O-N-N^+ geminal system (the sum of bond angles is 312°). Lone pair of this nitrogen atom lies in the plane of pyridine moiety (the proper torsion angle is 4° (**2a**), 17° (**2b**)). It was found that quinonoid deformation of pyridine's ring (structure **2A**) had place. The positive charge is localized mainly on nitrogen atom of Me_2N-group.