

# ALINA NESTEROVA



**A.E. Arbuzov Institute of Organic and  
Physical Chemistry  
FRC Kazan Scientific Center  
Russian Academy of Sciences  
420088, Arbuzov Str. 8, Kazan, Russia**

**Tel: +79196464799**

***E-mail: vtb241997@mail.ru***

**Date of birth: September 1, 1997**

## GENERAL SUMMARY

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- **Research activity** has been started in 2017 in the laboratory of Organometallic and Coordination Compounds of A.E.Arbuzov Institute of Organic and Physical Chemistry of Russian Academy of Sciences being student of the Physical chemistry of Department of the Kazan Federal University.
- **Scientific interests:** electrochemistry, homogeneous catalysis, organometallic catalysts, phosphines etc.

## PROFESSIONAL EXPERIENCE

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### SENIOR ASSISTANT

**06.2020 – present**

*Russian Academy of Sciences*

*FRC Kazan Scientific Center*

*A.E. Arbuzov Institute of Organic and Physical Chemistry*

*Kazan, Russia*

## EDUCATION

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### M. Sc. in PHYSICAL CHEMISTRY

**June 2020**

*A.M. Butlerov Institute of Chemistry*

*Kazan Federal University*

*Kazan, Russia*

*Thesis titled: "N-substituted diphenylphosphinoglycines: synthesis, electrochemical properties and application in the processes of homogeneous oligomerization of ethylene"*

## EXPERTISE

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- Electrochemistry
- Organic Chemistry
- Catalytic Chemistry
- Organometallic Chemistry
- Inorganic Chemistry

## SPOKEN LANGUAGES

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- Russian – mother tongue
- English – basic knowledge

## PUBLICATIONS

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### List of articles:

- O. S. Soficheva, Y. A. Kislitsyn, **A. A. Nesterova**, A. B. Dobrynin, D. G. Yakhvarov. Electrochemical properties of *N*-substituted  $\alpha$ -diphenylphosphinoglycines // *Russian Journal of Electrochemistry*, **2020**, 56(5), 431-436.
- O. S. Soficheva, **A. A. Nesterova**, A. B. Dobrynin, E. M. Zueva, J. W. Heinicke, Oleg G. Sinyashin, D. G. Yakhvarov. The effect of *N*-substituent on the relative thermodynamic stability of un-ionized and zwitterionic forms of  $\alpha$ -diphenylphosphino- $\alpha$ -amino acids // *Mendeleev Communications*, **2020**, 30(4), 516-518.

### List of theses:

- O. S. Soficheva, G. E. Bektukhamedov, **A. A. Nesterova**, A. B. Dobrynin, D. G. Yakhvarov. Selective homogeneous oligomerization of ethylene under the action of nickel complexes with *N*-(pyrazine-2-yl) diphenylphosphinoglycine (DOI: 10.17223/9785946217408/557).
- Y. A. Kislitsyn, O. S. Soficheva, **A. A. Nesterova**, V. M. Babaev, D. G. Yakhvarov. Electrochemical generation of ethylene oligomerization catalysts based on nickel complexes (DOI: 10.17223/9785946217408/558).
- O. S. Soficheva, A. A. Nesterova, V. M. Babaev, D. G. Yakhvarov. Electrochemical generation of new homogeneous organonickel catalysts for ethylene oligomerization // Anniversary Lomonosov Readings. Open competition of scientific papers in chemistry and materials science. Moscow, April 15-16, **2019**, p 94.
- **A. A. Nesterova**, O. S. Soficheva, D. G. Yakhvarov. Electrochemical properties of *N*-substituted  $\alpha$ -diphenylphosphinoglycines // International conference «Chemistry of Organoelement Compounds and Polymers 2019». Moscow, November 18–22, **2019**, p 23.
- **A. A. Nesterova**, A. A. Kagilev, A. O. Kantyukov, G. E. Bektukhamedov, E. M. Zueva, Z. N. Gafurov, O. S. Soficheva, D. G. Yakhvarov. Influence of the electronic and steric effects of substituents at the phosphorus atom in  $\alpha$ -phosphinoglycines on the catalytic activity of nickel complexes in the process of homogeneous oligomerization of ethylene. II Scientific Conference "Dynamic Processes in the Chemistry of Organoelement Compounds" dedicated to the 75th anniversary of the A. E. Arbuzov and the Kazan Scientific Center of the Russian Academy of Sciences. Kazan, November 11-13, **2020**, p 147.
- **A. A. Nesterova**, O. S. Soficheva, D. G. Yakhvarov *N*-substituted  $\alpha$ -diphenylphosphinoglycines: electrochemical properties and reactivity in the presence of nickel complexes. II Scientific Conference "Dynamic Processes in the Chemistry of Organoelement Compounds" dedicated to the 75th anniversary of the A. E. Arbuzov and the Kazan Scientific Center of the Russian Academy of Sciences. Kazan, November 11-13, **2020**, p 146.

## GRANTS

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**Project No. 19-29-08051** of the Russian Foundation for Basic Research (RFBR) “The development of new methods of electrochemical generation and activation of highly efficient catalysts based on complexes of group VIII 3d-metals and alpha-phosphorylated alpha-amino acids for the oligomerization of ethylene” (2019-2022) – *executor of the project.*