

**ALEXANDER V. NYUCHEV**

University	Lobachevsky state university of Nizhny Novgorod
Level of English proficiency	Advanced
Educational program and field of the educational program for which the applicant will be accepted	1.4. Chemical Sciences 1.4.3. Organic chemistry
List of research projects of the potential supervisor (participation/leadership)	<ol style="list-style-type: none"> <li>1. Ministry for Science of Russia, FSWR-2024-0002 “Development of effective methods for obtaining biocompatible compounds with physiological activity, study of their physicochemical and biological properties”, 2024–2026, grant leader.</li> <li>2. Russian Scientific Foundation 21-73-10230, “Cascade prodrug for photodynamic and targeted therapy of tumor diseases”, 2021–2024, grant leader.</li> <li>3. Ministry for Science of Russia, FSWR-2021-014 “Synthesis of biologically active compounds with antitumor, antiinflammatory, antifibrous and antiviral properties, study of their physical-chemical and biological properties”, 2021–2023, grant leader.</li> <li>4. Russian Foundation for Basic Research, “Elaboration of targeted photoactivated conjugates based on natural and synthetic porphyrins for combined antitumor therapy”, 2018–2020, grant leader.</li> </ol>
List of the topics offered for the prospective scientific research	<ul style="list-style-type: none"> <li>• Synthetic organic chemistry in continuous-flow</li> <li>• Development of green organic synthesis methodology in continuous-flow</li> <li>• Application of continuous-flow technology for industrial application</li> <li>• Gas/liquid reactions in continuous-flow</li> <li>• Photoredox catalysis in continuous-flow</li> <li>• Green synthetic photochemistry</li> <li>• Development of methodology for synthesis fluorine-containing compounds</li> </ul>
 <p>Research supervisor: Alexander V. Nyuchev PhD (Lobachevsky state university of Nizhny Novgorod)</p>	<b>Organic Chemistry</b>
	<b>Supervisor's research interests</b> <ul style="list-style-type: none"> <li>• Synthetic organic chemistry</li> <li>• Synthetic photochemistry</li> <li>• Flow chemistry</li> </ul>
	<b>Research highlights</b> Actual research field in organic chemistry
	<b>Supervisor's specific requirements</b> <ul style="list-style-type: none"> <li>• Knowledge of organic chemistry</li> <li>• Knowledge of analytical methods for organic chemistry (NMR, IR, UV and mass spectrometry, methods of gas, liquid and preparative column chromatography)</li> <li>• Good command of English</li> </ul>
	<b>Last 5 years:</b> 18 papers indexed by <i>Web of Science, Scopus, RSCI</i>

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1. E.N. Boronin, M.M. Svetlakova, I.I. Vorobyov, Y.B. Malysheva, Y.V. Polushtaytsev, S.N. Mensov, A.V. Vorotyntsev, A.Yu. Fedorov, T. Noël, A.V. Nyuchev. Photochemical organocatalytic heteroarylation of anilines and secondary alicyclic amines in continuous-flow. *Reaction Chemistry & Engineering* 2024, 9, 1877–1882.
2. T. Wan, L. Capaldo, G. Laudadio, A.V. Nyuchev, J.A. Rincón, P. García-Losada, C. Mateos, M.O. Frederick, M. Nuño, T. Noël. Decatungstate-mediated C(sp<sup>3</sup>)–H Heteroarylation via Radical-Polar Crossover in Batch and Flow. *Angewandte Chemie International Edition*, 2021, 60 (33), 17893–17897.
3. A.V. Nyuchev, T. Wan, B. Cendón, C. Sambiagio, J.J.C. Struijs, M. Ho, M. Gulías, Y. Wang, T. Noël. Photocatalytic trifluoromethoxylation of arenes and heteroarenes in continuous-flow. *Beilstein Journal of Organic Chemistry*, 2020, 16, 1305–1312.
4. S. Govaerts, A. Nyuchev, T. Noël. Pushing the boundaries of C-H bond functionalization chemistry using flow technology. *Journal of Flow Chemistry*, 2020, 10, 1, 13–71.
5. N.S. Kuzmina, V.F. Otvagin, A.A. Maleev, M.A. Urazaeva, A.V. Nyuchev, S.K. Ignatov, A.E. Gavryushin, A.Yu. Fedorov. Development of novel porphyrin/combretastatin A-4 conjugates for bimodal chemo and photodynamic therapy: synthesis, photophysical and TDDFT computational studies. *Journal of Photochemistry and Photobiology A: Chemistry*, 2022, 433, 114138.