Curriculum vitae

Yevgen Karpichev

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Researcher ID	D-2827-2009
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Homepage	http://www.ttu.ee/en/personnel-search/&kood=T0067779

Additional information

Yevgen Karpichev is a Senior Research Scientist and a Sustainable Chemistry and Engineering research team leader at Tallinn University of Technology (TalTech), Estonia. He obtained his PhD in 2002 (Ukraine), followed by the Visiting Researcher mission at University of California, Santa Barbara (with Prof. C.A. Bunton), and a postdoctoral fellowship at Dalhousie University (Canada). He completed a CNRS Visiting Researcher at IECB (University of Bordeaux) and CNRS Laboratory of IMRCP (Toulouse). Dr. Karpichev was appointed as a Visiting Professor at Paul Sabatier University (Toulouse, France, 2009), University of Hradec Králové (Czech Republic, 2014), and Pontifical Catholic University of Rio de Janeiro (Brazil, 2023). Joined ERA Chair of Green Chemistry at Tallinn University of Technology (TalTech) in 2015 and promoted to PI of the research team in 2019. His research topics and accomplishments cover Green and Sustainable Chemistry, biomass valorisation and

bioeconomy, medicinal chemistry, chemical decontamination, and material science.

Fields of research

ETIS RESEARCH FIELD: 4. Natural Sciences and Engineering; 4.11. Chemistry and Chemical Technology; CERCS RESEARCH FIELD: P390 Organic chemistry

ETIS RESEARCH FIELD: 4. Natural Sciences and Engineering; 4.11. Chemistry and Chemical Technology; CERCS RESEARCH FIELD: P400 Physical chemistry

ETIS RESEARCH FIELD: 4. Natural Sciences and Engineering; 4.11. Chemistry and Chemical Technology; CERCS RESEARCH FIELD: P352 Surface and boundary layery chemistry

Institutions and positions

01.01.2017–...	Tallinn University of Technology, School of Science, Department of Chemistry and Biotechnology, Senior researcher (1,00)
01.11.2023–09.12.2023	Pontifical Catholic University of Rio de Janeiro, Visiting Professor (0,50)
01.10.2015–31.12.2016	Tallinn University of Technology, Faculty of Science, Department of Chemistry, ERA Chair of Green Chemistry, Senior researcher (1,00)
15.10.2014–2016	UHK, University of Hradec Kralove, Czech Republic; Visiting Professor (0,10)
01.11.2014–30.09.2015	NAS of Ukraine, Institute of Organic Chemistry, National Academy of Science of Ukraine, Kiev, Senior Research Fellow (1,00)
01.06.2010–31.10.2014	NAS of Ukraine, L.M. Litvinenko Institute of Physical Organic Chemistry and Coal Chemistry, National Academy of Sciences of Ukraine, Donetsk; Engineer, Researcher, Senior Researcher (1,00)
01.09.2009–30.05.2010	CNRS, CNRS - University of Toulouse, FRANCE, CNRS Visiting Researcher (1,00)
01.02.2009–30.05.2009	UPS Toulouse III, University Paul Sabatier, Toulouse, FRANCE, Visiting Associate Professor (1,00)
01.10.2007–31.07.2008	IECB, European Institute of Chemistry and Biology (IECB), FRANCE, Research Associate (poste rouge) (1,00)
01.08.2006–30.09.2007	Dalhousie University, Canada, Postdoctoral Fellow (1,00)
01.01.1997–31.07.2006	NAS of Ukraine, L.M. Litvinenko Institute of Physical Organic Chemistry and Coal Chemistry, National Academy of Sciences of Ukraine, Donetsk; Engineer, Researcher, Senior Researcher (1,00)

20.08.2004– 30.10.2004	University of California, Santa Barbara USA, Visiting Researcher (STSM) (0,25)

R&D related managerial and administrative work

2026−...	Technologies and Engineering journal - International Editorial Board member
2024−...	Scientific Advisory Body for the Biological and Toxin Weapons Convention (BWC) InterAcademy Partnership (IAP) Proof of Concept Meeting
2017−...	Frontiers in Chemistry (Supramolecular Chemistry) - Review Editor
2016−...	Methods and Objects of Chemical Analysis- International Editorial Board member
2026−2029	CA24110 - Resource-Inclusive Renewable Materials: Leveraging Global Biomass for Sustainable Innovations (ReInvent) - MC Member
2021−2022	PI of PARROT Estonian-French sci & tech cooperation grant "SElf-Assembled Nanostructures from Sustainable Surfactants as Novel Antibacterials (SEANS2)"
2019	Member of the international PhD thesis commettee, EMP Borj-El-Bahri, Algeria
2019−2020	Erasmus+ exchange coordination under the Agreements with UHK (CZ) and UMBB (ALG)
2019	SSHN - High Level Scientific Mobility grant of the Embassy of France
2018−2022	DAIMON (Decision Aid for Marine Munitions) & DAIMON-2 Interreg projects, Associate Member
2017	CHAOS Summer Training School on Flow Chemistry, NMR, and Green Chemistry, Local organizing committee coordinator
2017−2019	Academic advisor (Project supervisor) for Dora Plus International Visiting PhD students at TUT (4 projects in total)
2017	Member of the Best Presentation Award Committee, 7th International Colloid Conference, Spain
2016−2020	COST Action CA15106 C-H Activation in Organic Synthesis (CHAOS) - MC Member
2016	COST Action CM1206 Exchange on Ionic Liquids (EXIL) - MC Substitute
2015	PhD rapporteur, University of Kharkiv, Ukraine
2014	7th International Symposium on Hydrocarbons and Chemistry, Algeria - Member of the Organizing Committee ,
2013	Member of the international thesis committee for joint supervision (cotutelle) PhD thesis defense, U Toulouse (France) - U Donetsk (Ukraine) and U Toulouse (France) - U Kiev

	(Ukraine)
2013	PhD Admission Board Member (Chemical Sciences), Donetsk, Ukraine
2012−2013	PI of NAS of Ukraine - CNRS (France) bilateral collaboration project
2012	Member of the international PhD (Docteur d'Etat) thesis committee, M'Hamed Bougara University, Boumerdes, Algeria
2011−2015	French-Ukrainian Network on Molecular Chemistry / GDRI - Member (Group Leader)
2011	Member of the Best Presentation Award Committee, Symposium “Surfactants: from colloid systems to nanochemistry”, Kazan, Russia, 2011
2010−2013	Academic advisor / co-supervisor of French Embassy Young Scientist Fellowship Grantees (4 STSM projects)

Creative work

2015 - Advisor on Science and Education at NGO Open Policy Foundation (Ukraine) to participate in the projects on the civil conflicts mitigation and reconciliation, access to the education in the conflict areas, inquiry-based education..

2014-2015 - Supervisor of secondary and high-school project teams on Chemistry and Ecology (Ukraine)
Accomplishments: 2 prize winners of Intel ECO international competition (national stage); 1 team shortlisted in the Dream Eco international competition (national stage); 1 awardee and 1 shortlisted of the International school student conference.
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Additional information

Membership in professional societies: American Chemical Society; Material research Society; Ukrainian Association for Hydrogen Energy; International Association of Colloid and Interface Scientists; International Symmetry Association; International Society for Development and Sustainability

Invited talks at conferences and meetings:
• 2024 - International Conference "Current Chemical Problems" CCP-2024, Vinnytsia, UA (online)
• 2022 MRS Spring Meeting & Exhibit, Honolulu, USA
• 2019 - 10th International Conference “Kiev-Toulouse”, Toulouse FR
• 2017 - 7th International Colloid Conference, Sitges ES (Showcase talk),
• 2017 - 9th International Conference “Kiev-Toulouse”, Kiev UA
• 2015 - 8th International Conference “Kiev-Toulouse”, Toulouse FR
• 2014 - 20th SIS, Coimbra, PT
• 2013 - 7th International Conference “Kiev-Toulouse”, Kiev UA
• 2012 - International Conference “Chemistry of Nitrogen-containing Heterocycles”, Kharkiv UA
• 2011 - International Butlerov Congress on Organic Chemistry, Kazan RU
• 2011 - 1st Symposium “Surfactants: from colloid systems to nanochemistry”, Kazan

RU
• 2010 - 239th ACS Meeting, San Francisco USA
• 2002 - European Chemistry Congress (SFC Eurochem), FR

Refereeing research papers. ACS: Langmuir, ACS Sustainable Chemistry & Engineering; Journal of Physical Chemistry A; Canadian Journal of Chemistry; Wiley: Journal of Surfactants and Detergents, PCCP; Elsevier: Journal of Colloid and Interface Science, Journal of Molecular Liquids (certificate of recognition in 2018), Comptes Rendus Chimie, Colloids and Surfaces A: Physicochemical and Engineering Aspects (outstanding contribution in 2017), Colloids and Surfaces B: Biointerfaces, Dyes and Pygments (outstanding contribution in 2016), Journal of Molecular Catalysis, Arabian Journal of Chemistry; Diamond and Related Materials; Bentham: LDDD; MDPI: Sustainability, Molecules, Toxics, Antibiotics,Materilas, Nanomaterials, Biology and Life Sciences Forum, Pharmaceutics

Invited talks and seminars at scholarly institutions:
2023 - Instituto Militar de Engenharia, Brazil; 2022 – Latvian State Institute of Wood Chemistry; 2022- PUC Rio, Brazil; 2016 - University of Hradec Kralove (CZ), University of Malmo (Sweden); 2022, 2017, 2013 - University Aix-Marseille (FR), CIC EnergiGUNe (Vitoria-Gasteiz, ES); 2019, 2012 – IECB (Bordeaux, FR); 2019 - Polytechnic Military School (Bordj el Bahri, Algeria); 2009 - Paul Sabatier University (France); 2008 - University of Strathclyde (Glasgow, UK); 2004 - Presidium of National Academy of Sciences of Ukraine, Kiev (UA)

Academic degrees

Yevgen Karpichev, Doctor's Degree, 2002, (sup) Anatolii Popov, Дослідження функціональних ПАР, які містять групи альфа-нуклеофілів, у реакціях переносу ацильної групи (Study of functionalized surfactants containing alpha-nucleophilic group in acyl transfer reactions), L.M. Litvinenko Institute of Physical Organic and Coal Chemistry, National Academy of Sciences of Ukraine

Honours & awards

2013 Certificate of Merit of Donetsk Region Governor (Ukraine)

2003 Fellowship of National Academy of Sciences of Ukraine for Young Scientists

1996 Fellowship of Cabinet Council of Ukraine for Young Researchers

Additional information

2010 - Habilitation Diploma (Senior Researcher in Organic Chemistry)

Education

1993–1996	PhD in Organic Chemistry, Donetsk State University
01.09.1988–30.06.1993	MSc (Hons) in Biochemistry, Donetsk State University

Projects in progress

- TF24021 (TK228U1) "Centre of Excellence in Circular Economy for Strategic Mineral and Carbon Resources" (01.01.2024−31.12.2030); Principal Investigator: Riina Aav; Tallinn University of Technology (partner); Financier: Ministry of Education and Research; Financing: 2 269 400 EUR.
- TEM-TA49 "Chemical and biological valorization technologies for woody biomass and secondary lignocellulose sources" (01.01.2024−31.12.2028); Principal Investigator: Yevgen Karpichev, Tiit Lukk; Tallinn University of Technology, School of Science, Department of Chemistry and Biotechnology (coordinator), University of Tartu (partner); Financier: Estonian Research Council; Financing: 1 146 150 EUR.
- MINM25136 (RE.5.04.25-0892) "Ligniinist lõhkematerjalide ja raketikütuste saamine" (30.11.2025−31.05.2027); Principal Investigator: Yevgen Karpichev; Tallinn University of Technology, School of Science, Department of Chemistry and Biotechnology; Financier: Estonian Business and Innovation Agency; Financing: 44 964 EUR.
- VA25025 "Carbon Dots from sustainable sources – Robust and Optimal Materials for bioimaging" (01.04.2025−31.03.2027); Principal Investigator: Albina Mikhraliieva; Tallinn University of Technology, School of Science, Department of Chemistry and Biotechnology; Financier: Alexander von Humboldt Foundation; Financing: 151 902 EUR.

Completed projects

- VEU23002 "Surveillance and Reconnaissance Techniques for Chemical and Biological Threats" (01.12.2022−31.01.2026); Principal Investigator: Olli-Pekka Aukusti Smolander, Yevgen Karpichev; Tallinn University of Technology, School of Science, Department of Chemistry and Biotechnology (partner); Financier: European Commission; Financing: 363 750 EUR.
- VERT20014 "Erasmus Mundus Joint Master Degree in Biological and Chemical Engineering for Sustainable Bioeconomy" (1.09.2019−31.08.2025); Principal Investigator: Jaan Kers; Tallinn University of Technology, School of Engineering, Department of Materials and Environmental Technology (partner), Tallinn University of Technology, School of Science, Department of Chemistry and Biotechnology (partner); Financier: European Commission; Financing: 377 500 EUR.
- GFALGLA24 "Estonian peat valorization" (01.10.2024−30.06.2025); Principal Investigator: Leeli Amon; Tallinn University of Technology, School of Science, Department of Geology (coordinator); Financier: Tallinn University of Technology; Financing: 20 000 EUR.
- KIK21045 "Novel energy materials for circular economy technologies" (01.07.2021−01.09.2023); Principal Investigator: Yevgen Karpichev; Tallinn University of Technology, School of Science, Department of Chemistry and Biotechnology (coordinator); Financier: Environmental Investment Center; Financing: 68 562 EUR.
- RESTA11 "Development of chemical and biochemical valorization technologies for bleached chemithermomechanical pulps (BCTMP) and secondary woody biomass sources." (01.09.2020−31.05.2023); Principal Investigator: Tiit Lukk; Tallinn University of Technology, School of Science, Department of Chemistry and

Biotechnology; Financier: Estonian Research Council; Financing: 503 910 EUR.

- AR16054 "Doctoral Studies and Internationalisation programme Dora Pluss" (1.01.2016−31.08.2022); Principal Investigator: Marika Lunden; Tallinn University of Technology (partner); Financier: Archimedes Foundation; Financing: 66 400 EUR.
- VNT19018 "Design First Responders Versatile Detection and Decontamination Methods " (01.06.2019−31.05.2022); Principal Investigator: Yevgen Karpichev; Tallinn University of Technology, School of Science, Department of Chemistry and Biotechnology; Financier: NATO; Financing: 105 900 EUR.
- COVSG5 "Biodegradable formulations for antiviral coatings and sanitizers [BIOFORM]" (01.10.2020−31.12.2021); Principal Investigator: Yevgen Karpichev; Tallinn University of Technology, School of Science, Department of Chemistry and Biotechnology; Financier: Estonian Research Council; Financing: 100 000 EUR.
- LMIN18040 "Innovative (pre)POmace Valorization procEss " (24.04.2018−31.03.2021); Principal Investigator: Yevgen Karpichev; Tallinn University of Technology, School of Science, Department of Chemistry and Biotechnology; Financier: Ministry of Rural Affairs; Financing: 83 333 EUR.
- PUT1656 "Sustainable Surfactants" (01.01.2017−30.04.2019); Principal Investigator: Nicholas Gathergood; Tallinn University of Technology, School of Science, Department of Chemistry and Biotechnology (coordinator); Financier: Estonian Research Council; Financing: 120 400 EUR.
- VFP655 "Excellent Tallinn University of Technology Research Chair in Green Chemistry and Technology" (01.05.2014−30.04.2019); Principal Investigator: Nicholas Gathergood; Tallinn University of Technology (coordinator); Financier: European Commission; Financing: 2 285 082 EUR.

Dissertations under supervision

- Nandish Mudegowdru Nagappa, PhD student, (sup) Yevgen Karpichev, Sustainable formulations for encapsulation of antibacterial/antiviral agents and natural extracts, Tallinn University of Technology, School of Science, Department of Chemistry and Biotechnology
- Kaspar Uuselu, PhD student, (sup) Siim Salmar; Mart Loog; Yevgen Karpichev, Biorefinary lignin valorization, University of Tartu, Faculty of Science and Technology, Institute of Chemistry
- Nadiia Shevchenko, PhD student, (sup) Yevgen Karpichev; Dzmitry Kananovich, Green Methods of Organic Synthesis for Valorization of Biomass, Tallinn University of Technology, School of Science, Department of Chemistry and Biotechnology

Supervised dissertations

- Thi Thuy Trân Ho, Doctor's Degree, 2026, (sup) Maria Kulp; Yevgen Karpichev, Organosolv Lignin: From Characterization to Esterification, Tallinn University of Technology, School of Science, Department of Chemistry and Biotechnology
- Mahendra Kothottil Mohan, Doctor's Degree, 2025, (sup) Yevgen Karpichev, Lignin Valorization via Chloromethylation as a Versatile Approach Towards Sustainable Materials, Tallinn University of Technology, School of Science, Department of Chemistry and Biotechnology

- Illia Kapitanov, Doctor's Degree, 2024, (sup) Yevgen Karpichev, Structure Modification and Applications of Sustainable Ionic Liquids-Based Molecular Platforms, Tallinn University of Technology, School of Science, Department of Chemistry and Biotechnology
- Denys Bondar, Doctor's Degree, 2023, (sup) Yevgen Karpichev, Design of Acetylcholinesterase Reactivators and Poly(ADP-ribose) Polymerase Inhibitors Based on Hydroxamic Acids and Oximes, Tallinn University of Technology, School of Science, Department of Chemistry and Biotechnology
- Sandra Babu, Master's Degree, 2025, (sup) Yevgen Karpichev; Aurore Richel, Biofilm-driven electrode optimization in bioelectrochemical systems, Tallinn University of Technology, School of Science, Department of Chemistry and Biotechnology
- Atsbeha Gebreslassie Gebremeskel, Master's Degree, 2025, (sup) Yevgen Karpichev; Aurore Richel, Deep eutectic solvent fractionation of biomass and development of a multi-analytical tools strategy for the characterization of obtained extracts, Tallinn University of Technology, School of Science, Department of Chemistry and Biotechnology
- Javeria Ibrahim, Master's Degree, 2025, (sup) Yevgen Karpichev; Saulou-Bérion Claire, Acetogenic valorization of paper cardboard waste stream into platform chemicals using simultaneous saccharification and fermentation, Tallinn University of Technology, School of Science, Department of Chemistry and Biotechnology
- Jose Alberto Bolanos Zeas, Master's Degree, 2024, (sup) Yevgen Karpichev; Manon Genva, Catalytic functionalization of lignin oils derived from reductive catalytic fractionation of lignocellulosic biomass, Tallinn University of Technology, School of Science, Department of Chemistry and Biotechnology
- Lorena Díaz Fernandez De Quincoces, Master's Degree, 2024, (sup) Yevgen Karpichev; Ana Karen Sanchez Castaneda, Aqueous pyrolysis liquid as an innovative substrate for anaerobic digestion for the production of biogas, Tallinn University of Technology, School of Science, Department of Chemistry and Biotechnology
- Bernadette Jia Rong Lee, Master's Degree, 2023, (sup) Yevgen Karpichev; Joël Priolon, Analysis of the recent trends in AgriFoodTech innovations in response to the European Green Deal and the role of venture capital companies in sustainable innovation, Tallinn University of Technology, School of Science, Department of Chemistry and Biotechnology
- Dania Muhieddine Orfali, Master's Degree, 2023, (sup) Yevgen Karpichev; Florian Pion, Atlas of potential feedstocks for designing sustainable bioprocesses, Tallinn University of Technology, School of Science, Department of Chemistry and Biotechnology
- Maria Agathi, Master's Degree, 2022, (sup) Yevgen Karpichev; Stéphanie Baumberger, Investigation of the effect of pectin addition in carrot juice on viscosity and organoleptic quality traits, Tallinn University of Technology, School of Science, Department of Chemistry and Biotechnology
- Mohammadhossein Havaei, Master's Degree, 2022, (sup) Yevgen Karpichev; Tapani Vuorinen, Enzymatic Hydrolysis of Stilbene Glucosides in Spruce Bark Extract, Tallinn University of Technology, School of Science, Department of Chemistry and Biotechnology

Supervision of postdoctoral researchers

- 01.05.2019−31.12.2019 Zeba Usmani **"Biodegradability studies of the surface-active ionic liquids (SAILs) and natural deep eutectic solvent mixtures (NADES)"** (Tallinn University of Technology)
- 01.05.2025−30.04.2027 Albina Mikhraliieva **"Sustainable synthesis and modification of carbon dots from renewable sources"** (Tallinn University of Technology (TalTech))

Teaching

Green Chemistry Metrics for Feedstock to Biochemical Development (6.0) LKK0130

Life Cycle Analysis of Green Technologies (6.0) LKK0190

Environmental Protection and Sustainable Development YTG0060

Sustainable Development and Legal Aspects of Environmental Protection MOA3010

Publications

1.1. Scholarly articles indexed by Web of Science Science Citation Index Expanded, Social Sciences Citation Index, Arts & Humanities Citation Index, Emerging Sources Citation Index and/or indexed by Scopus (excluding chapters in books)

Mohan, Mahendra K.; Ho, T. Tran; Köster, Carmen; Järvik, Oliver; Kulp, Maria; Karpichev, Yevgen (2026). Tuning ester derivatives of organosolv vs technical lignin for improved thermoplastic materials. Faraday Discussions, 263, 445−458. DOI: 10.1039/d5fd00068h.

Nagappa, Nandish M.; Mero, Angelica; Husanu, Elena; Usmani, Zeba; Oliva, Matteo; Sanches, Matilde Vieira; Fumagalli, Giorgia; Mele, Andrea; Mezzetta, Andrea; Gathergood, Nicholas; Guazzelli, Lorenzo; Pretti, Carlo; Karpichev, Yevgen (2026). Biodegradability and Ecotoxicity Profiles of Choline Acetate, Betaine, and L-Proline NADESs: A Hidden Threat for Eutrophication? Molecules, 31 (2), #262. DOI: 10.3390/molecules31020262.

Severin, Oleksandr O.; Bondar, Denys; Bragina, Olga; Nagappa, Nandish M.;Olev, Janari; Brovarets, Volodymyr; Semenyuta, Ivan V.; Karpichev, Yevgen (2026). In Vitro Anticancer Activity and In Silico Target Profiling of 5-(Piperazin-1-ylsulfonyl)-1,3-oxazole-4-carbonitriles. International Journal of Molecular Sciences, 27 (4), #1936. DOI: 10.3390/ijms27041936.

Mohan, Mahendra Kothottil; Shevchenko, Nadiia; Aichaoui, Louiza; Lima, Renan de Melo Correia; Bondar, Denys; Hamada, Boudjema; Karpichev, Yevgen (2026). Investigation of Lignin-Based Catalysts' Effectiveness and Constraints in Selective Hydrogenation. Catalysts, 16 (2), #173. DOI: 10.3390/catal16020173.

Arnaut, Pierre; Bracho Pozsoni, Nestor; Bondar, Denys; Lippmann, Petra; Boschuk, Susanne; Semenyuta, Ivan; Bhandary, Subhrajyoti; Van Hecke, Kristof; Karpichev, Yevgen; Cavarzerani, Enrico; Canzonieri, Vincenzo; Rizzolio, Flavio; Scattolin, Thomas; Vougioukalakis, Georgios C.; Ott, Ingo; Tzouras, Nikolaos V.; Nolan, Steven P. (2025). A new generation of N-heterocyclic carbene (NHC) gold-selenolato complexes as potent anticancer agents: distinct synthetic routes and evaluation in 2D and 3D cancer models. Chemical Science, 16 (37), 17221−17231. DOI: 10.1039/d5sc04490a.

Bondar, Denys; Smirnova, Olga; Nagappa, Nandish M.; Heinmaa, Ivo; Soukup, Ondrej; Kobrlova,

Tereza; Opravil, Jakub; Hrabinova, Martina; Jun, Daniel; Starkov, Pavel; Spuul, Pirjo; Kuča, Kamil; Mochalin, Vadym N.; Karpichev, Yevgen (2025). Nanodiamond Mediated Delivery of Pyridinium Oxime Antidotes to Central Nervous System for Potential Treatment of Exposure to Nerve Agents. Chemico-Biological Interactions, 420, #111711. DOI: 10.1016/j.cbi.2025.111711.

Silenko, Oleg; Cherenok, Serhii; Kobzar, Oleksandr; Shulha, Yurii; Rusanov, Eduard; Karpichev, Yevgen; Drapailo, Andriy; Vovk, Andriy; Kalchenko, Vitaly (2025). Synthesis and structure of thiacalix[4]arene phosphoric acids and their ability to inhibit protein tyrosine phosphatases. Phosphorus Sulfur and Silicon and the Related Elements, 1−12. DOI: 10.1080/10426507.2025.2490167.

Mohan, Mahendra Kothottil; Silenko, Oleg; Krasnou, Illia; Volobujeva, Olga; Kulp, Maria; Ošeka, Maksim; Lukk, Tiit; Karpichev, Yevgen (2024). Chloromethylation of Lignin as a Route to Functional Material with Catalytic Properties in Cross-Coupling and Click Reactions. ChemSusChem, 17, 8, #e202301588. DOI: 10.1002/cssc.202301588.

Yusibova, G.; Ping, K.; Käärik, M.; Leis, J.; Aruväli, J.; Šmits, K.; Käämbre, T.; Kisand, V.; Karpichev, Y.; Tammeveski, K.; Kongi, N. (2024). Optimizing post-treatment strategies for enhanced oxygen reduction/evolution activity in Co–N–C electrocatalyst. International Journal of Hydrogen Energy, 82, 398−406. DOI: 10.1016/j.ijhydene.2024.07.388.

Mohan, Mahendra K.; Kaur, Harleen; Rosenberg, Merilin; Duvanova, Ella; Lukk, Tiit; Ivask, Angela; Karpichev, Yevgen. (2024). Synthesis and Antibacterial Properties of Novel Quaternary Ammonium Lignins. ACS Omega, 9 (37), 39134−39145. DOI: 10.1021/acsomega.4c06000.

Bondar, D.; Karpichev, Y. (2024). Poly(ADP-Ribose) Polymerase (PARP) Inhibitors for Cancer Therapy: Advances, Challenges, and Future Directions. Biomolecules, 14 (10), #1269. DOI: 10.3390/biom14101269.

Mohan, Mahendra Kothottil ; Krasnou, Ilia; Lukk, Tiit; Karpichev, Yevgen (2024). Novel softwood lignin esters as advanced filler to PLA for 3D printing. ACS Omega, 9 (44), 44559−44567. DOI: 10.1021/acsomega.4c06680.

Severin, Oleksandr O.; Pilyo, Stepan G.; Moskvina, Viktoriia S.; Shablykina, Olga; Karpichev, Yevgen; Brovarets, Volodymyr S. (2024). Synthesis and In Vitro Anticancer Evaluation of Functionalized 5-(4-Piperazin-1-yl)-2-aryloxazoles and 5-(4-Arylsulfonyl)piperazin-1-yl)-2-phenyloxazoles. Chemistry of Heterocyclic Compounds, 60 (1/2), 68−74.

Kapitanov, I.; Raba, G.; Spulak, M.; Vilu, R.; Karpichev, Y.; Gathergood, N. (2023). Design of Sustainable Ionic Liquids Based on L-Phenylalanine and L-Alanine Dipeptides: Synthesis, Toxicity and Biodegradation Studies. Journal of Molecular Liquids, 374, #121285. DOI: 10.1016/j.molliq.2023.121285.

Usmani, Z.; Sharma, M.; Tripathi, M.; Lukk, T.; Karpichev, Y.; Gathergood, N.; Singh, B.N.; Thakur, V.K.; Tabatabaei, M.; Gupta, V.K. (2023). Biobased Natural Deep Eutectic System As Versatile Solvents: Structure, Interaction and Advanced Applications. The Science of The Total Environment, 881, #163002. DOI: 10.1016/j.scitotenv.2023.163002.

Kapitanov, Illia V.; Sudheer, Suria M.; Yadav, Toshikee; Ghosh, Kallol K.; Gupta, Vijai K.; Gathergood, Nicholas; Karpichev, Yevgen (2023). Sustainable phenylalanine-derived SAILs for

solubilization of polycyclic aromatic hydrocarbons. Molecules, 28 (10), #4185. DOI: 10.3390/molecules28104185.

Yesypenko, Oleksandr A.; Trybrat, Oleksandr O.; Karpichev, Yevgen A.; Kalchenko, Vitaly I. (2023). Regioselective Functionalization of the para-Positions at the Calix[4]arene Upper Rim. Current Organic Chemistry, 27 (6), 510 −525. DOI: 10.2174/1385272827666230524120812.

Vasiliev, G.; Kubo, A.L.; Vija, H.; Kahru, A.; Bondar, D.; Karpichev, Y.; Bondarenko, O. (2023). Synergistic antibacterial effect of copper and silver nanoparticles and their mechanism of action. Scientific Reports, 13 (1), 9202. DOI: 10.1038/s41598-023-36460-2.

Bondar, Denys; Bragina, Olga; Lee, Ji Young; Semenyuta, Ivan ; Järving, Ivar; Brovarets, Volodymyr ; Wipf, Peter; Bahar, Ivet; Karpichev, Yevgen (2023). Hydroxamic Acids as PARP-1 Inhibitors: Molecular Design and Anticancer Activity of Novel Phenanthridinones. Helvetica Chimica Acta, 106 (10), e202300133. DOI: 10.1002/hlca.202300133.

Kapitanov, Illia V.; Spulak, Marcel; Pour, Milan; Soukup, Ondřej; Marek, Jan; Jun, Daniel; Novak, Martin; Diz de Almeida, Joyce S. F.; França, Tanos C.C.; Gathergood, Nicholas; Kuča, Kamil; Karpichev, Yevgen (2023). Sustainable Ionic Liquids-Based Molecular Platforms for Designing Acetylcholinesterase Reactivators. Chemico-Biological Interactions, 385, 110735. DOI: 10.1016/j.cbi.2023.110735.

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3.1. Articles/chapters in books published by the publishers listed in Annex (including collections indexed by the Web of Science Book Citation Index, Web of Science Conference Proceedings Citation Index, Scopus)

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4.1. Editing collections or special issues of research journals corresponding to the requirements set in sections 1.1, 1.2, 3.1, 3.2

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5.2. Conference abstracts that do not belong to section 5.1

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