

Acidification by nitrogen metabolism triggers extracellular biopolymer production in an oleaginous yeast
Sepulveda Del Rio Hamacek, Henrique; Tingajeva, Oksana; Ostertag, Katharina; Rekena, Alina; Illarionov, Aleksandr; Jõul, Piia; Monteiro de Oliveira, Paola; de la Caridad Martin-Hernandez, Giselle; Müller, Bettina; Bonturi, Nemailla; Passoth, Volkmar; Lahtvee, Petri-Jaan; Kumar, R. Applied and environmental microbiology 2025 / rt. e00947-25, 23 p
<https://doi.org/10.1128/aem.00947-25> <https://journals.asm.org/doi/10.1128/aem.00947-25>

The Acidity of Weak NH Acids : Expanding the pKa Scale in Acetonitrile

Lõkov, Märt; Kesküla, Carmen; Tshepelevitsh, Sofja; Pikma, Marta-Lisette; Saame, Jaan; Trubitsõn, Dmitri; Kanger, Tõnis; Leito, Ivo ACS Organic & Inorganic Au 2025 / p. 144–155 <https://doi.org/10.1021/acsorginorgau.4c00095>

Acridinium photocatalyzed monofluoromethyl radical cascade reaction of alkenes with iodine(III) reagent : A mechanistic study

Ramkumar, Nagarajan; Raikuma, Anete Patricija; Bauman, Larisa; Kinens, Artis; Traskovskis, Kaspars; Ošeka, Maksim; Veliks, Janis Advanced synthesis & catalysis 2025 / 12 p <https://doi.org/10.1002/adsc.70069>

Antibacterial Properties of Heteronium Lignin Containing Materials Against ESKAPE Pathogens

Mohan, Mahendra Kothottil; Bragina, Olga; Mosjakina, Sofija; Raimundo, Jean-Manuel; Karpichev, Yevgen ChemRxiv 2025
<https://doi.org/10.26434/chemrxiv-2025-zmlgw-v2>

Antibacterial Properties of Submerged Cultivated Fomitopsis pinicola, Targeting Gram-Negative Pathogens, Including Borrelia burgdorferi

Bragina, Olga; Kuhtinskaja, Maria; Elisashvili, Vladimir; Asatiani, Mikheil; Kulp, Maria Sci 2025 / art. 104
<https://doi.org/10.3390/sci7030104>

Assessment of spoilage microbial communities in modified atmosphere-packed ready-to-eat salad during cold storage : A comparative study using MALDI-TOF MS identification and PacBio full-length 16S rRNA and ITS sequencing

Asadi, Atefeh; Angerjas, Anna; Paalme, Viiv; Huseynli, Lachinkhanim; Sarand, Inga International Journal of Food Microbiology 2025 / art. 111268 <https://doi.org/10.1016/j.ijfoodmicro.2025.111268>

Bashir Bashiri: Kuidas algoritm aitab meil tervislikumalt süüa

Bashiri, Bashir Trialog 2025 <https://trialoog.taltech.ee/bashir-bashiri-kuidas-algoritm-aitab-meil-tervislikumalt-suua/>

Biofuels and Bioproducts from Lignocellulosic Materials : Biomaterials

2025 <https://shop.elsevier.com/books/biofuels-and-bioproducts-from-lignocellulosic-materials/sharma/978-0-443-21606-0>

Capillary electrophoretic analysis of calcium and magnesium acetate samples produced from oil shale industry waste

Umerenkova, Violetta; Muldma, Kati; Närep, Angelica; Mets, Birgit; Kaldas, Kristiina Euroanalysis 2025 : XXII European Conference on Analytical Chemistry : Abstract Book 2025 / art. P2-074 ; p. 583
https://www.euroanalysis2025.com/images/site/abstracts/ABSTRACT_EUROANALYSIS_2025.V13.pdf

Challenges in mechanistic investigation of a flexible aminocatalyst as demonstrated through enamine formation

Osadchuk, Irina; Kanger, Tõnis ChemistryOpen 2025 / art. 2500116 <https://doi.org/10.1002/open.202500116> <https://chemistry-europe.onlinelibrary.wiley.com/doi/10.1002/open.202500116>

Characterization of bitter off-taste stimuli in sunflower press cake using the sensomics approach

Huseynli, Lachinkhanim; Gigl, Michael; Müller, Jasmin; Walser, Christoph; Frank, Oliver; Vene, Kristel; Dawid, Corinna Journal of agricultural and food chemistry 2025 / p. 23548-23559 <https://doi.org/10.1021/acs.jafc.5c07283>

Chitosan-copper oxide nanocomposites : synthesis, antibacterial efficacy, and cytotoxicity

Laanoja, Jüri; Sihtmäe, Mariliis; Otsus, Maarja; Kasemets, Kaja; Kahru, Anne 2025 IEEE 15th International Conference "Nanomaterials: Applications & Properties" : Abstract Book 2025 2025 / p. 464 https://ieeenap.org/data/Book_of_Abstacts_2025.pdf

Chronic infection with gastric helicobacters induces hepatic lesions in mice

Seeneevassen, Lomella; Sifré, Elodie; Khalid, Sadia; Managau, Mathilde; Mégraud, Francis; Ménard, Armelle; Dubus, Pierre; Spuul, Pirjo; Varon, Christine Helicobacter 2025 / art. e70032 <https://doi.org/10.1111/hel.70032>

The design of unit cells by combining the self-reproduction systems and metabolic cushioning loads

Abner, Kristo; Šverns, Peter; Arold, Janar; Lints, Taivo; Eller, Neeme-Andreas; Morell, Indrek; Seiman, Andrus; Adamberg, Kaarel; Vilu, Raivo Communications biology 2025 / art. 241 <https://doi.org/10.1038/s42003-025-07655-2>

Development of new photocatalytic ring-opening reaction of cyclopropanols

Krech, Anastasiya; Ošeka, Maksim; Kananovich, Dzmitry BOSS XVII : Programme & Book of Abstracts 2022 / p. 132-132
https://books.google.ee/books/about/BOSS_XVII.html?id=dCuZwEACAAJ&redir_esc=y

DFT and QM/MM Study of interactions of NSAIDs and Beta-Blockers with DNA

Öztürk, Isilay; Tamm, Toomas; Kinal, Armagan ChemistrySelect 2025 / art. e202404564 <https://doi.org/10.1002/slct.202404564>

A DFT study of an organocatalytic enantioselective Mannich reaction under the sway of noncovalent interactions
Metsala, Andrus; Kriis, Kadri; Kanger, Tõnis Journal of computational chemistry 2025 / art. e70159 <https://doi.org/10.1002/jcc.70159>

ECD spectra of porphyrin complexes using TD-DFT

Osadchuk, Irina EUCMOS2023 : Abstract book 2023 / p. 42
https://jyx.jyu.fi/bitstream/handle/123456789/88819/EUCMOS2023_AbtractBook_FINAL_verkkoon.pdf?sequence=-1

Enabling ring-opening reaction of cyclopropanols with decatungstate anion photocatalysis

Krech, Anastasiya; Kananovich, Dzmitry; Ošeka, Maksim ISySyCat 2023 : International Symposium on Synthesis and Catalysis : Book of Abstracts 2023 / 1 p https://books.google.ee/books/about/ISySyCat_2023.html?id=wkVl0AEACAAJ&redir_esc=y

Enhanced Detection of Biological Warfare Agents Using MALDI-ToF Mass Spectrometry Integrated with Artificial Intelligence

Bentahir, Mostafa; Dolias, Georges; Karpichev, Yevgen; Ioannidis, Konstantinos; Udal, Andres; Fernandez Velasco, Leticia Medical Biodefense Conference 2025

Ethylene glycol metabolism in the oleaginous yeast *Rhodotorula toruloides*

Senatore, Vittorio Giorgio; Rekena, Alina; Mapelli, Valeria; Lahtvee, Petri-Jaan; Branduardi, Paola Applied Microbiology and Biotechnology 2025 / art. 114 <https://doi.org/10.1007/s00253-025-13504-3>

Expression and purification of bacterial dye-decolorizing peroxidases using *Escherichia coli*

Pupart, Hegne; Eek, Priit Lignin-degrading enzymes 2025 / art. 156, p. 143-156 <https://doi.org/10.1016/bs.mie.2025.03.004> Scopus

High-intensity interval and moderate-intensity continuous training on cerebral energy metabolism in older rats.

Marcourt, Cecile; Rivera, Claudio; Tuvikene, Jürgen; Langeard, Antoine; Esvald, Eli-Eelika; Cabrera-Cabrera, Florencia; Timmusk, Tõnis; Temprado, Jean-Jacques; Laurin, Jerome GeroScience 2025 / 16 p <https://doi.org/10.1007/s11357-025-01820-5>

High-throughput bacterial aggregation analysis in droplets

Saar-Abroi, Merili; Lindpere, Karoliine; Olman, Triini; Sulp, Fenella Lucia; Sanka, Immanuel; Bartkova, Simona; Scheler, Ott bioRxiv 2024 / 6 p. <https://doi.org/10.1101/2024.09.24.613170>

Histone bivalency in CNS development

Mätlik, Kärt; Govek, Eve-Ellen; Hatten, Mary E. Genes & Development 2025 / 17 p <https://doi.org/10.1101/gad.352306.124>

How reliable is internal standard method in monitoring mechanochemical synthesis? A case study of triphenylmethane in HPLC-UV-MS analysis of hemicucurbit[n]urils

Jarg, Tatsiana; Tamm, Jevgenija; Suut-Tuule, Elina; Lootus, Ketren-Marlein; Kananovich, Dzmitry; Aav, Riina RSC Mechanochemistry 2025 / p. 507-515 <https://doi.org/10.1039/D4MR00145A>

Integrated sensory, nutritional, and consumer analysis of sunflower seed butter: a comparative study of commercial and prototype samples

Vene, Kristel; Lumi, Evelyn; Alas, Maria; Huseynli, Lachinkhanim Foods 2025 / art. 1815 <https://doi.org/10.3390/foods14101815>

Integrating multi-criteria decision-making with multi-objective optimization for sustainable diet design

Bashiri, Bashir; Kaleda, Aleksei; Vilu, Raivo Journal of Cleaner Production 2025 / art. 145233
<https://doi.org/10.1016/j.jclepro.2025.145233>

Kerox technology: potential of piloting the production of medium chain dicarboxylic acids from kerogen in a continuous-flow oxidation reactor

Reinaas, Maria; Kaldas, Kristiina; Muldma, Kati; Uustalu, Jaan Mihkel; Koern, Villem Ödner; Siirde, Kaarel; Silm, Estelle; Mets, Birgit; Kimm, Mariliis; Rõuk, Kristi Future Frontiers : PhD Conference on Emerging Technologies : Book of Abstracts 2025 / p. 29 [Future Frontiers \(PDF\)](#)

Leptin acutely increases hepatic triglyceride secretion in patients with lipodystrophy

Beghini, Marianna; Metz, Matthäus; Baumgartner, Clemens; Wolf, Peter; Bastian, Magdalena; Hackl, Martina; Baumgartner-Parzer, Sabina; Marculescu, Rodrig; Risti, Robert; Lõokene, Aivar Metabolism 2025 / art. 156261
<https://doi.org/10.1016/j.metabol.2025.156261>

Mechanochemical synthesis of 5-laminol-4-cyanoxazoles

Merzhievskiy, Danylo; Shablykin, Oleh V.; Jarg, Tatsiana; Brovarets, Volodymyr S.; Aav, Riina; Kananovich, Dzmitry European journal of organic chemistry 2025 / art. e202500145 <https://doi.org/10.1002/ejoc.202500145>

Metabolic regulation of acetyl-CoA and NADPH production pathways in *Rhodotorula Toruloides*

Rekena, Alina; Gavrilovic, Srdjan; Lahtvee, Petri-Jaan Metabolic Engineering 16 (ME16) : conference proceedings 2025 / art. 706872 <https://aiche.confex.com/aiche/me16/meetingapp.cgi/Paper/706872>

Micronisation of low-salinity Baltic Sea blue mussels : enhancing whole-biomass utilization and nutritional viability
Adler, Indrek; Kotta, Jonne; Vene, Kristel Fishes 2025 / 15 p <https://doi.org/10.3390/fishes10050199>

Nanodiamond mediated delivery of pyridinium oxime antidotes to central nervous system for potential treatment of exposure to nerve agents
Bondar, Denys; Smirnova, Olga; Nagappa, Nandish M.; Heinmaa, Ivo; Soukup, Ondrej; Kobrlova, Tereza; Opravil, Jakub; Hrabanova, Martina; Jun, Daniel; Starkov, Pavel Chemico-Biological Interactions 2025 / art. 111711
<https://doi.org/10.1016/j.cbi.2025.111711> <https://www.sciencedirect.com/science/article/abs/pii/S0009279725003412>

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
Arnaut, Pierre; Bracho Pozsoni, Nestor; Bondar, Denys; Lippmann, Petra; Boschuk, Susanne; Semenyuta, Ivan; Bhandary, Subhrajyoti; Van Hecke, Kristof; Karpichev, Yevgen; Cavarzerani, Enrico Chemical Science 2025 / p. 17221-17231
<https://doi.org/10.1039/d5sc04490a>

The origin and pathogenicity of Helicobacter pylori strains in Estonia
Roots, Kaisa; Truu, Liisa; Suurmaa, Külli; Sarand, Inga; Spuul, Pirjo EHMSG – 38th International Workshop on Helicobacter & Microbiota Study Group, Rome, Italy, sept. 11-13, 2025 : abstract book 2025 / p. 67 <https://www.microbiotajournal.com/wp-content/uploads/sites/7/2025/09/Book-Abstracts-2025-1.pdf> http://doi.org/10.26355/mhd_20259_1347

Palatini Linear Attractors Are Back in ACTion
Dioguardi, Christian; Karam, Alexandros arXiv.org 2025 / 5 p <https://doi.org/10.48550/arXiv.2504.12937> <https://arxiv.org/abs/2504.12937>

Potential of producing medium chain dicarboxylic acids from kerogen in kukersite in a continuous-flow oxidation reactor
Reinaas, Maria; Kaldas, Kristiina; Muldma, Kati; Uustalu, Jaan Mihkel; Koern, Villem Ödner; Siirde, Kaarel; Silm, Estelle; Mets, Birgit; Kimm, Mariliis; Rõuk, Kristi ISCRE 28 Abstracts 2024 / 2 p https://www.iscre28.org/abstracts/abstract_587_517_1.pdf

Product life cycle assessment (LCA) of inactive yeast production
Bashiri, Bashir; Banerjee, Susmita; Vilu, Raivo 36th VHYC Yeast Conference : Advances in Science and Industrial Production of Baker's Yeast : "Sustainable yeast production challenges", Duesseldorf, Germany, 22-23 May 2025 2025 / p. 5 https://vh-berlin.org/vhyc2025/VHYC2025_Abstracts.pdf

Production of snow and ice melting agents - calcium and magnesium acetates from oil shale industry combustion waste
Muldma, Kati; Mets, Birgit; Siirde, Kaarel; Siirde, Andres; Reinaas, Maria; Närep, Angelica; Uustalu, Jaan Mihkel; Koern, Villem Ödner; Lopp, Margus; Kaldas, Kristiina ISCRE 28 : Abstracts 2024 / 2 p
https://www.iscre28.org/abstracts/abstract_588_518_1.pdf <https://www.iscre28.org/abstracts.html>

Pyridyl-3-boronic acids as catalysts for valorization of biomass
Shevchenko, Nadiia; Kananovich, Dzmitry; Karpichev, Yevgen EcoBalt2025 : Book of abstracts 2025 / p. 127
https://ecobalt.ftmc.lt/wp-content/uploads/2025/10/EcoBalt2025_Book_of_Abstracts_V1-cor1_2025-10-24.pdf

Quantitative systems biology analysis of lipid-producing yeast Rhodotorula toruloides cultivation
Rekena, Alina; Pinheiro, Marina Julio; Pals, Kristjan; Belouah, Isma; Bonturi, Nemailla; Gavrilovic, Srdjan; Kerkhoven, Eduard Johannes; Lahtvee, Petri-Jaan FEBS3+ Baltics : Biochemistry at the Fore Line : Abstract Book 2025 / p. 69 [FEBS3+ Abstract Book \(PDF\)](#)

Ring-opening coupling reaction of cyclopropanols with electrophilic alkenes enabled by decatungstate as photoredox catalyst
Krech, Anastasiya; Kananovich, Dzmitry; Ošeka, Maksim PHOTOCAT 24 : School of Photochemistry : from Photocatalysis to Photobiology : Book of Abstract 2024 / p. 67

The role of ATP citrate lyase, phosphoketolase, and malic enzyme in oleaginous Rhodotorula toruloides
Rekena, Alina; Pals, Kristjan; Gavrilovic, Srdjan; Lahtvee, Petri-Jaan Applied microbiology and biotechnology 2025 / art. 77
<https://doi.org/10.1007/s00253-025-13454-w>

Scalable mechanochemical synthesis of biotin[6]uril
Suut-Tuule, Elina; Schults, Eve; Jarg, Tatsiana; Kananovich, Dzmitry; Aav, Riina INCOME 2025 : Book of Abstracts 2025 / p. 108 https://www2.hu-berlin.de/income2025-berlin/INCOME2025_Program_abstracts.pdf

Selective acetylation of unprotected thioglycosides and fully unprotected monosaccharides with Candida antarctica lipase-B
Hunt, Kaarel Erik; Miller, Annette; Jarg, Tatsiana; Kriis, Kadri; Kanger, Tonis ACS omega 2025 / p. 20047-20053
<https://doi.org/10.1021/acsomega.5c02467>

Small and Large Extracellular Vesicles From Human Preovulatory Follicular Fluid Display Distinct ncRNA Cargo Profiles

and Differential Effects on KGN Granulosa Cells

Varik, Inge; Saretok, Katariina Johanna; Rosenberg, Kristine; Quintero, Ileana; Puhka, Maija; **Volkova, Nataliia;** Trošin, Aleksander; Guazzi, Paolo; **Velthut-Meikas, Agne** Journal of Extracellular Vesicles 2025 / art. e70119
<https://doi.org/10.1002/jev2.70119>

Stimulus-Dependent Expression of Bdnf Is Mediated by ATF2, MYT1L, and EGR1 Transcription Factors

Esvald, Eli-Eelika; Moistus, Andra; Lehe, Karin; Avarlaid, Annela; Subina, Anastassia; Kuusemets, Liis; Tuvikene, Jurgen; Timmusk, Tõnis Journal of Neuroscience 2025 / art. e0313242025 <https://doi.org/10.1523/JNEUROSCI.0313-24.2025>

Storage stability of berry mueslis with special focus on phenolic compounds

Zhou, Ying; **Saarniit, Kärt;** Jafari, Mahsa Sadat; Rosensvald, Sirli; Laaksonen, Oskar; Tian, Ye; Yang, Baoru LWT - food science and technology 2025 / art. 118119 <https://doi.org/10.1016/j.lwt.2025.118119>

Summary of taxonomy changes ratified by the International Committee on Taxonomy of Viruses from the Plant Viruses Subcommittee, 2025

Rubino, Luisa; Abrahamian, Peter; An, Wenxia; Aranda, Miguel A.; Ascencio-Ibañez, Jose T.; Bejerman, Nicolas; Blouin, Arnaud G.; Candresse, Thierry; Canto, Tomas; Cao, Mengji; **Sarmiento Guerin, Maria Cecilia; Sömera, Merike** Journal of general virology 2025 / 20 p <https://doi.org/10.1099/jgv.0.002114>

Sustainable diets, from design to implementation by multi-objective optimization-based methods and policy instruments

Bashiri, Bashir; Kaleda, Aleksei; **Vilu, Raivo** Frontiers in Sustainable Food Systems 2025 / art. 1629739
<https://doi.org/10.3389/fsufs.2025.1629739> <https://www.frontiersin.org/journals/sustainable-food-systems/articles/10.3389/fsufs.2025.1629739/full>

Synthesis and characterization of synergically acting antifungal silver-chitosan nanocomposites for biomedical applications

Kaarma, Laura; Kahru, Anne; Kasemets, Kaja Toxicology Letters 2025 / P22-04 ; p. S269-S270
<https://doi.org/10.1016/j.toxlet.2025.07.634>

Toward a comprehensive understanding of flavor of sunflower products: a review of confirmed and prospective aroma- and taste-active compounds

Huseynli, Lachinkhanim; Walser, Christoph; Blumenthaler, Luise; **Vene, Kristel;** Dawid, Corinna Foods 2025 / art. 1940
<https://doi.org/10.3390/foods14111940>

Tuning ester derivatives of organosolv vs technical lignin for improved thermoplastic materials

Mohan, Mahendra Kothottil; Ho, Thi Thuy Tran; Köster, Carmen; Järvik, Oliver; Kulp, Maria; Karpichev, Yevgen Faraday Discussions 2025 <https://doi.org/10.1039/d5fd00068h>

Valorization of industrial waste into biodegradable deicing agents

Muldma, Kati; Mets, Birgit; Siirde, Andres; Umerenkova, Violetta; Lopp, Margus; Pantšenko, Nata-Ly; Kaldas, Kristiina EcoBalt2025 : Book of abstracts 2025 / p. 122 https://ecobalt.ftmc.lt/wp-content/uploads/2025/10/EcoBalt2025_Book_of_Abstracts_V1-cor1_2025-10-24.pdf

Vitamins formed by microorganisms in fermented foods : effects on human vitamin status—a systematic narrative review

Keyvan, Erhan; Adesemoye, Elizabeth; Champomier-Verges, Marie-Christine; Chanseaume-Bussiere, Emilie; Mardon, Julie; Nikolovska Nedelkoska, Daniela; Palamutoglu, Recep; Russo, Pasquale; **Sarand, Inga;** Songre-Ouattara, Laurencia Frontiers in nutrition 2025 / 21 p. <https://doi.org/10.3389/fnut.2025.1653666>