

Aging processes in recycled polyethylene and fly ash blends

Krasnou, Illia; Jayapal, Ramkumar; Köster, Annika; Krumme, Andres Book of abstracts : AERC 2014 : 9th Annual European Rheology Conference, April 8-11, 2014, Karlsruhe, Germany 2014 / p. 179

Cellulose stearate in melt and plant oil suspension

Krasnou, Illia; Ferrer, Elena Martin; Krumme, Andres Annual Transactions of the Nordic Rheology Society. Vol. 22 2014 / p. 19-22 : ill

Chloromethylation of lignin as a route to functional material with catalytic properties in cross-coupling and click reactions

Mohan, Mahendra Kothottil; Silenko, Oleg; Krasnou, Illia; Volobujeva, Olga; Kulp, Maria; Ošeka, Maksim; Lukk, Tiit; Karpichev, Yevgen ChemSusChem 2024 / art. e202301588 <https://doi.org/10.1002/cssc.202301588> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Chloromethylation of lignin as a route to functional material with catalytic properties in cross-coupling and click reactions : preprint

Mohan, Mahendra Kothottil; Silenko, Oleg; Krasnou, Illia; Volobujeva, Olga; Kulp, Maria; Ošeka, Maksim; Lukk, Tiit; Karpichev, Yevgen ChemRxiv 2023 / 20 p <https://doi.org/10.26434/chemrxiv-2023-w98xc>

Circular production, designing, and mechanical testing of polypropylene-based reinforced composite materials : statistical analysis for potential automotive and nuclear applications

Hussain, Abrar; Podgurski, Vitali; Goljandin, Dmitri; Antonov, Maksim; Sergejev, Fjodor; Krasnou, Illia Polymers 2023 / art. 3410, 30 p. : ill <https://doi.org/10.3390/polym15163410> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Development of Functional Composite Cu(II)-Polyoxometalate/PLA with Antimicrobial Properties

Duvanov, Ella; Krasnou, Illia; Krumme, Andres; Mikli, Valdek; Rozantsev, Georgiy M.; Radio, Serhii V.; Karpichev, Yevgen Molecules 2022 / art. 2510 <https://doi.org/10.3390/molecules27082510> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Directly electrospun electrodes for electrical double-layer capacitors from carbide-derived carbon

Malmberg, Siret; Arulepp, Mati; Savest, Natalja; Tarasova, Elvira; Vassiljeva, Viktoria; Krasnou, Illia; Käär, Maike; Mikli, Valdek; Krumme, Andres Journal of electrostatics 2020 / art. 103396, 7 p. : ill <https://doi.org/10.1016/j.elstat.2019.103396> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

EDLC durable electrodes and capacitor for high frequency applications

Malmberg, Siret; Tarasova, Elvira; Vassiljeva, Viktoria; Krasnou, Illia; Arulepp, Mati; Krumme, Andres SPCD 2018 : 3rd Space Passive Components Days International Symposium, Noordwijk, Netherlands, 9-12 October 2018 2018 / 10 p. : ill <https://passive-components.eu/edlc-durable-electrodes-and-capacitor-for-high-frequency-applications/>

Effect of green co-solvents on properties and synthesis of cellulose esters in superbase ionic liquid

Tarasova, Elvira; Savale, Nutan Bharat; Trifonova, Lada; Krasnou, Illia; Reile, Indrek; Kudrjašova, Marina; Mere, Arvo; Kaljuvee, Tiit; Mikli, Valdek; Sedrik, Rauno; Krumme, Andres Cellulose 2024 / p. 4911-4927 <https://doi.org/10.1007/s10570-024-05920-x> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

The effect of ionic liquids on the conductivity of electrospun polyacrylonitrile membranes

Savest, Natalja; Plamus, Tiia; Tarasova, Elvira; Viirsalu, Mihkel; Krasnou, Illia; Gudkova, Viktoria; Küppar, Kadi-Anne; Krumme, Andres Journal of electrostatics 2016 / p. 63-68 : ill <https://doi.org/10.1016/j.elstat.2016.07.006> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

The effect of ionic liquids on the mechanical properties of electrospun polyacrylonitrile membranes

Plamus, Tiia; Savest, Natalja; Viirsalu, Mihkel; Harz, Patrick; Tarasova, Elvira; Krasnou, Illia; Vassiljeva, Viktoria; Kallavus, Urve; Krumme, Andres Polymer testing 2018 / p. 335-343 : ill <https://doi.org/10.1016/j.polymertesting.2018.09.003> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Electrochemical evaluation of directly electrospun carbide-derived carbon-based electrodes in different nonaqueous electrolytes for energy storage applications

Malmberg, Siret; Arulepp, Mati; Tarasova, Elvira; Vassiljeva, Viktoria; Krasnou, Illia; Krumme, Andres C – journal of carbon research 2020 / art. 59, 16 p. : ill <https://doi.org/10.3390/c6040059>

Electrospun conductive mats from PANi-ionic liquid blends

Savest, Natalja; Plamus, Tiia; Kütt, Kertu; Kallavus, Urve; Viirsalu, Mihkel; Tarasova, Elvira; Vassiljeva, Viktoria; Krasnou, Illia; Krumme, Andres Journal of electrostatics 2018 / p. 40-44 <https://doi.org/10.1016/j.elstat.2018.09.007> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Electrospun materials in triboelectric series

Savest, Natalja; Krasnou, Illia; Krumme, Andres; Dobryden, I.; Hakansson, K.; Edberg, J. Baltic Polymer Symposium, BPS2023 :

Electrospun nanofibrous materials for energy storage and harvesting

Krasnou, Illia; Plamus, Tiia; Vassiljeva, Viktoria; Malmberg, Siret; Tarasova, Elvira; Krumme, Andres Baltic Polymer Symposium 2019 : Vilnius, Lithuania, 18-20 September 2019 : programme and proceedings 2019 / p. 27 : ill [Molecularly imprinted polymers](#)

Electrospun triboelectric textiles utilizing cellulose acetate

Edberg, Jesper; **Savest, Natalja; Krasnou, Illia**; Mulla, Mohammad Yusuf; **Krumme, Andres**; Hakansson, Karl; Dobryden, Illia Advanced sustainable systems 2025 / art. e00173 <https://doi.org/10.1002/adsu.202500173>

Experimental mechanics analysis of recycled polypropylene-cotton composites for commercial applications

Hussain, Abrar; Goljandin, Dmitri; Podgurski, Vitali; Abbas, Muhammad Mujtaba; **Krasnou, Illia** Advanced industrial and engineering polymer research 2023 / p. 226-238 : ill <https://doi.org/10.1016/j.aiepr.2022.11.001> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Formation of uniform PVDF fibers under ultrasound exposure in presence of anionic surfactant

Tarasova, Elvira; Tamberg, K.-G.; Viirsalu, Mihkel; Savest, Natalja; Gudkova, Viktoria; Krasnou, Illia; Krumme, Andres Journal of electrostatics 2015 / p. 39-47 : ill <https://doi.org/10.1016/j.elstat.2015.05.004> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Impact of 1-butyl-3-methylimidazolium chloride on the electrospinning of cellulose acetate nanofibers

Javed, Kashif; Krumme, Andres; Krasnou, Illia; Mikli, Valdek; Viirsalu, Mihkel; Plamus, Tiia; Vassiljeva, Viktoria; Tarasova, Elvira; Savest, Natalja; Mendez, James D. Journal of macromolecular science, part A : pure and applied chemistry 2018 / p. 142-147 : ill <https://doi.org/10.1080/10601325.2017.1387861> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Intermolecular interaction of thermoresponsive poly[2-isopropyl-2-oxazoline] in solutions and interpolymer complex with fiber-forming polyethylene oxide

Amirova, Alina; Rodchenko, Serafim; Kurlykin, Mikhail; Tenkovtsev, Andrey; **Krasnou, Illia; Krumme, Andres**; Filippov, Alexander Journal of applied polymer science 2020 / art. 49708, 8 p <https://doi.org/10.1002/app.49708> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Ionic liquids recycling

Krasnou, Illia; Krumme, Andres Baltic Polymer Symposium, BPS2023 : programme and abstracts 2023 / p. 17

A method for producing conductive graphene biopolymer nanofibrous fabrics by exploitation of an ionic liquid dispersant in electrospinning

Javed, Kashif; Krumme, Andres; Viirsalu, Mihkel; Krasnou, Illia; Plamus, Tiia; Vassiljeva, Viktoria; Tarasova, Elvira; Savest, Natalja; Mere, Arvo; Mikli, Valdek; Danilson, Mati; Kaljuvee, Tiit; Lange, Sven Carbon 2018 / p. 148-156 : ill <https://doi.org/10.1016/j.carbon.2018.08.034> <https://novaator.err.ee/873101/ttu-teadlaste-arendatud-tselluloosikangaga-saab-vajadusel-laadida-telefoni> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

New antimicrobial Cu(II)-polytungstate/polylactic acid films

Duvanova, Ella; Krasnou, Illia; Knyzhnyk, Ivan; Radio, Serhii V.; **Karpichev, Yevgen** Graduate School of Functional Materials and Technology (GSFMT) Scientific Conference : abstracts 2022 / 15 l. [Graduate School of Functional Materials and Technology \(GSFMT\) Scientific Conference 2022](#)

One-step carbon nanotubes grafting with styrene-co-acrylonitrile by reactive melt blending for electrospinning of conductive reinforced composite membranes

Vassiljeva, Viktoria; Kirikal, Kristi; Hietala, S.; **Kaljuvee, Tiit; Mikli, Valdek**; Rähn, Mihkel; **Tarasova, Elvira; Krasnou, Illia; Viirsalu, Mihkel; Savest, Natalja; Plamus, Tiia; Javed, Kashif; Krumme, Andres** Fullerenes, nanotubes and carbon nanostructures 2017 / p. 667-677 : ill <https://doi.org/10.1080/1536383X.2017.1394847> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Optimization and degradation studies of cellulose transesterification to palmitate esters in superbase ionic liquid

Savale, Nutan Bharat; Tarasova, Elvira; Krasnou, Illia; Kudrjašova, Marina; Rjabovs, Vitālijs; Reile, Indrek; Heinmaa, I. A.; **Krumme, Andres** Carbohydrate Research 2024 / art. 109047 <https://doi.org/10.1016/j.carres.2024.109047> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

The performance of fibrous CDC electrodes in aqueous and non-aqueous electrolytes

Malmberg, Siret; Arulepp, Mati; Laanemets, Krista; Käär, Maike; Laheäär, Ann; **Tarasova, Elvira; Vassiljeva, Viktoria; Krasnou, Illia; Krumme, Andres** C : Journal of Carbon Research 2021 / art. 46 <https://doi.org/10.3390/c7020046>

Permeability of water and oleic acid in composite films of phase separated polypropylene and cellulose stearate blends

Krasnou, Illia; Gardebjer, Sofie; Tarasova, Elvira; Larsson, Anette; Westman, Gunnar; **Krumme, Andres** Carbohydrate polymers

Physical-mechanical properties and morphology of filled low-density polypropylene: comparative study on calcium carbonate with oil shale and coal ashes

Krasnou, Illia; Nadeem, Faisal; Gregor, Andre; Yörük, Can Rüstü; Krumme, Andres Journal of Vinyl and Additive Technology 2022 / p. 94-103 : ill <https://doi.org/10.1002/vnl.21869> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Preparation of fibrous electrospun membranes with activated carbon filler

Krasnou, Illia; Tarasova, Elvira; Malmberg, Siret; Vassiljeva, Viktoria; Krumme, Andres IOP conference series : materials science and engineering 2019 / art. 012022, 5 p. : ill <https://doi.org/10.1088/1757-899X/500/1/012022> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Preparation of thermoplastic cellulose esters in [mTBNH][OAc] ionic liquid by transesterification reaction

Tarasova, Elvira; Savale, Nutan Bharat; Krasnou, Illia; Kudrjašova, Marina; Rjabovs, Vitalijs; Reile, Indrek; Vares, Lauri; Kallakas, Heikko; Kers, Jaan; Krumme, Andres Polymers 2023 / art. 3979 <https://doi.org/10.3390/polym15193979> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Propolis nanofibers : development and effect against SARS-CoV-2 virus and S. aureus, S. enterica bacteria

Zelca, Zane; Krumme, Andres; Kukle, Silvija; Krasnou, Illia Materials today chemistry 2023 / art. 101749 <https://doi.org/10.1016/j.mtchem.2023.101749> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Reactive extrusion of cellulose esters in ionic liquid: Exploring properties and performance across different cellulose types and degree of polymerizations

Tarasova, Elvira; Krasnou, Illia; Enkhsaikhan, Giiguulen; Abousharabia, Ibrahim; Nunes, Caio César Zandonadi; Kartheesu, Darshni; Savale, Nutan Bharat; Kontturi, Eero; Krumme, Andres Cellulose 2024 / 28 p <https://doi.org/10.21203/rs.3.rs-4580669/v1>

Reactive extrusion of cellulose esters in ionic liquid: exploring properties and performance across different cellulose types and degrees of polymerization

Tarasova, Elvira; Krasnou, Illia; Enkhsaikhan, Giiguulen; Abousharabia, Ibrahim; Nunes, Caio César Zandonadi; Kartheesu, Darshni; Savale, Nutan Bharat; Kontturi, Eero; Krumme, Andres Cellulose 2024 / p. 10223-10240 : ill <https://doi.org/10.1007/s10570-024-06203-1> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Rheological properties of fatty acid cellulose esters synthesised by reactive extrusion

Ilinitaskaja, Anna; Krasnou, Illia; Krumme, Andres Baltic Polymer Symposium 2025 : 23d International Scientific Conference BPS 2025 "Baltic Polymer Symposium 2025" : Book of abstracts 2025 / p. 55 <http://woodval.taltech.ee/wp-content/uploads/2025/07/BPS2025-Book-of-abstracts.pdf>

Rheology and dissolution capacity of cellulose in novel [mTBNH][OAc] ionic liquid mixed with green co-solvents

Tarasova, Elvira; Savale, Nutan Bharat; Ausmaa, Peeter; Mihkel, Krasnou, Illia; Krumme, Andres Rheologica acta 2024 / p. 167-178 <https://doi.org/10.1007/s00397-024-01433-3> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Sustainable fabrication of polypropylene-postconsumer cotton composite materials : circularity, characterization, mechanical testing, and tribology

Hussain, Abrar; Podgurski, Vitali; Goljandin, Dmitri; Antonov, Maksim; Viljus, Mart; Krasnou, Illia Materials today sustainability 2023 / art. 100344, 16 p. : ill <https://doi.org/10.1016/j.mtsust.2023.100344> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Synthesis and investigation of thermo-induced gelation of partially cross-linked poly-2-isopropyl-2-oxazoline in aqueous media

Amirova, Alina; Rodchenko, Serafim; Kurlykin, Mikhail; Tenkovtsev, Andrey; Krasnou, Illia; Krumme, Andres; Filippov, Alexander Polymers 2020 / art. 698, 13 p. : ill <https://doi.org/10.3390/polym12030698> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Synthesis of polymerizable ionic liquid monomer and its characterizations

Sardar, Jagannath; Mäeorg, Uno; Krasnou, Illia; Baddam, Vikram; Gudkova, Viktoria; Krumme, Andres; Savest, Natalja; Tarasova, Elvira; Viirsalu, Mihkel IOP conference series : materials science and engineering 2016 / p. 1-5 : ill <https://doi.org/10.1088/1757-899X/111/1/012021> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Synthesis of polymerizable ionic liquid monomer and its characterizations

Sardar, Jagannath; Mäeorg, Uno; Krasnou, Illia; Baddam, Vikram; Gudkova, Viktoria; Krumme, Andres; Savest, Natalja; Tarasova, Elvira; Viirsalu, Mihkel Baltic Polymer Symposium 2015 : Sigulda, Latvia, September 16-18 : programme and proceedings 2015 / p. 74 : ill

Synthesis of thermoplastic cellulose esters in novel ionic liquid

Savale, Nutan Bharat; Tarasova, Elvira; Krasnou, Illia; Kudrjašova, Marina; Reile, Indrek; Krumme, Andres Baltic Polymer Symposium, BPS2023 : programme and abstracts 2023 / p. 14

Tensile and surface hydrophobicity investigation of the novel synthesized cellulose derivative films

Kallakas, Heikko; Kilumets, Catherine; Tarasova, Elvira; Krasnou, Illia; Savest, Natalja; Gudkova, Viktoria; Ahmadian, Iman; Krumme, Andres; Kers, Jaan Research Square 2022 / 13 p <https://doi.org/10.21203/rs.3.rs-2191830/v1>

Thermoplastic cellulose stearate and cellulose laurate : melt rheology, processing and application potential

Krasnou, Illia; Tarasova, Elvira; Märtson, Triin; Krumme, Andres International polymer processing 2015 / p. 210-216
<https://doi.org/10.3139/217.2980> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Tribological and circular economy aspects of polypropylene/cotton fibre hybrid composite

Hussain, Abrar; Podgurski, Vitali; Goljandin, Dmitri; Antonov, Maksim; Kumar, Rahul, 1993-; Kamboj, Nikhil Kumar; Rahmani Ahranjani, Ramin; Viljus, Mart; Ahmad, Tahir; Krumme, Andres; Krasnou, Illia Proceedings of the Estonian Academy of Sciences 2022 / p. 186-193 : ill <https://doi.org/10.3176/proc.2022.2.03> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Tribological and mechanical properties investigations of post-consumer cotton textiles

Hussain, Abrar; Podgurski, Vitali; Goljandin, Dmitri; Viljus, Mart; Antonov, Maksim; Bogatov, Andrei; Krasnou, Illia Solid state phenomena ; 320 2021 / p. 97-102 <https://doi.org/10.4028/www.scientific.net/SSP.320.97> [Conference Proceedings at Scopus](#) [Article at Scopus](#)