

A novel alumina – nanocarbon hybrid material

Ivanov, Roman; Anoshkin, Ilya; Nasibulin, Albert; **Hussainova, Irina**; Kauppinen, Esko NT13: Fourteenth International Conference on the Science and Applications of Nanotubes : 24-28 June, 2013, Espoo, Finland 2013 / p. 309

Acquisition of O₂ adsorption isotherms as thorough characterization of nanocrystalline titanium dioxide photocatalysts

Moiseev, Anna; **Kritševskaja, Marina**; **Preis, Sergei** Surfaces and interfaces 2019 / p. 44-49 : ill

<https://doi.org/10.1016/j.surf.2018.11.003> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Adsorption and kinetics studies of Cr (VI) by graphene oxide and reduced graphene oxide-zinc oxide nanocomposite

Naseem, Taiba; Bibi, Fozia; Arif, Saira; Waseem, Muhammad Adnan; Haq, Sirajul; Azra, Mohamad Nor; **Liblik, Taavi**; Zekker, Ivar Molecules 2022 / art. 7152, 16 p. : ill <https://doi.org/10.3390/molecules27217152> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Advanced nanomaterials and their applications in renewable energy, Jingbo Louise Liu and Sajid Bashir : [book review]

Rauwel, Protima MRS bulletin 2016 / p. 494 <https://doi.org/10.1557/mrs.2016.127>

Advanced nanomaterials and their applications in renewable energy, Jingbo Louise Liu and Sajid Bashir : Elsevier 2015, 436 pages, print and e-book \$144.50, ISBN 9780128015285 : [book review]

Rauwel, Protima MRS bulletin 2016 / p. 494 <https://doi.org/10.1557/mrs.2016.127>

Advances in nanomaterials induced biohydrogen production using waste biomass

Srivastava, Neha; Srivastava, Manish; Mishra, Pradeep Kumar; Kausar, Mohd Adnan; Saeed, Mohd; **Gupta, Vijai Kumar**; Singh, Rajeev; Ramteke, Pramod Wasudeo Bioresource Technology 2020 / art. 123094 <https://doi.org/10.1016/j.biortech.2020.123094> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Analysis of optical properties and structure of GaTe - CdTe nanocomposite

Caraman, Iuliana; Untila, Dumitru; Evtodiev, Igor; Canter, Valeriu; **Spalatu, Nicolae**; Rusu, Dragos; Luchian, Efimia; Rotaru, Irina Chalcogenide letters 2015 / p. 683-692 : ill https://chalcogen.ro/683_Caraman.pdf [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Antibacterial activity of chitosan-silver nanocomposites

Kasemets, Kaja; **Laanoja, Jüri**; Kahru, Anne Debrecen Colloquium on Carbohydrates 2020 in 2022, August 24-27, 2022Debrecen, Hungary : program and abstracts 2022 / p. 47 https://konferencia.unideb.hu/sites/default/files/file_uploads/debcarb-abstract-elektronikus-2022-kesz_04-cor_0.pdf

Antibacterial and antifungal efficacy of novel chitosan-silver nanocomposites

Kasemets, Kairi; Laanoja, Jüri; Sihtmäe, Mariliis; Kurvet, I.; Otsus, Maarja; Vija, H.; Kahru, Anne (E-MRS) European Materials Research Society 2023 Spring Meeting : 40th Anniversary 2023 / art. 61_875 <https://www.dropbox.com/s/w8prtknt2ekutr/SPRING%2023%20-%20Conference%20program.pdf?dl=0>

Antimicrobial particles based on Cu₂ZnSnS₄ monograins

Žalneravicius, Rokas; Pakštas, Vidas; Grinciene, Giedre; Klimas, Vaclovas; Paškevičius, Algimantas; **Timmo, Kristi**; **Kauk-Kuusik, Marit**; Franckevicius, Marius; Niaura, Gediminas; Talaikis, Martynas; Jagminas, Arunas; Ramanavicius, Arunas Colloids and Surfaces B: Biointerfaces 2023 / art. 113275 <https://doi.org/10.1016/j.colsurfb.2023.113275> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Antioxidant chemistry of graphene-based materials and its role in oxidation protection technology

Qiu, Yang; Wang, Zhongying; **Külaots, Indrek** Nanoscale 2014 / p. 11744-11755 : ill

Atomic layer deposition for hard nanocoatings

Jõgiaas, Taivo; **Kollo, Lauri**; **Hussainova, Irina** Baltic ALD 2014 : 12th International Baltic Conference on Atomic Layer Deposition : May 12-13, 2014, Helsinki, Finland 2014 / p. 91-92

Bacterial polysaccharide levan as stabilizing, non-toxic and functional coating material for microelement-nanoparticles

Bondarenko, Olesja; Ivask, Angela; Kahru, Anne; **Titma, Tiina**; **Pudova, Ksenia**; **Adamberg, Signe** Carbohydrate polymers 2015 / p. 710-720 : ill <https://doi.org/10.1016/j.carbpol.2015.09.093> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Bioceramic scaffolds by additive manufacturing for controlled delivery of the antibiotic vancomycin

Kamboj, Nikhil Kumar; Rodriguez, Miguel Angel; **Rahmani Ahranjani, Ramin**; **Prashanth, Konda Gokuldoss**; **Hussainova, Irina** Proceedings of the Estonian Academy of Sciences 2019 / p. 185–190 : ill <https://doi.org/10.3176/proc.2019.2.10> http://www.kirj.ee/public/proceedings_pdf/2019/issue_2/proc-2019-2-185-190.pdf [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Book review : Nanomaterials for wastewater remediation, Ravindra Kumar Gautam and Mahesh Chandra Chattopadhyaya: Butterworth-Heinemann, 2016, 366 pages

Rauwel, Protima MRS bulletin 2017 / p. 885–886 <https://doi.org/10.1557/mrs.2017.203>

CaF₂ solidstate electrolytes prepared by vapor pressure exposure and solid synthesis for defect and ionic conductivity tuning

Molaiyan, Palanivel; Witter, Raiker Material design & processing communications 2020 / art. e76, 6 p. : ill

<https://onlinelibrary.wiley.com/doi/epdf/10.1002/mdp2.76> <https://doi.org/10.1002/mdp2.76> [Journal metrics at Scopus](#) [Article at Scopus](#)

Center of Nanomaterials Technologies and Research

Estonian research infrastructure roadmap 2019 2019 / p. 17 : ill https://www.ester.ee/record=b5251946*est

Characterization of microstructure and mechanical properties of friction stir welded AlMg5-Al₂O₃ nanocomposites

Babu, N. Kishore; **Kallip, Kaspar**; Leparoux, Marc Materials science and engineering : A 2016 / p. 109-122 : ill

<http://dx.doi.org/10.1016/j.msea.2016.01.102>

Combined effects of test media and dietary algae on the toxicity of CuO and ZnO nanoparticles to freshwater microcrustaceans daphnia magna and heterocypris incongruens : food for thought

Muna, Marge; Blinova, Irina; Kahru, Anne; Vrček, Ivana Vinković; Pem, Barbara; Orupõld, Kaja; Heinlaan, Margit Nanomaterials 2019

/ art. 23 <https://doi.org/10.3390/nano9010023> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Crystalline structure, surface morphology and optical properties of nanolamellar composites obtained by intercalation of InSe with Cd

Untila, Dumitru; Caraman, Iuliana; Evtodiev, Igor; **Spalatu, Nicolae** Energy procedia 2015 / p. 149-155 : ill

<https://doi.org/10.1016/j.egypro.2015.12.308> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Cubic iron core–shell nanoparticles functionalized to obtain high-performance MRI contrast agents

Volokhova, Maria; Shugai, Anna; Tsujimoto, Masahiko; Kubo, Anna-Liisa; Telliskivi, Sven; Nigul, Mait; Uudeküll, Peep; Vija, Heiki; Bondarenko, Olesja; Adamson, Jasper; Kahru, Anne; Stern, Raivo; Seinberg, Liis Materials 2022 / art. 2228

<https://doi.org/10.3390/ma15062228> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

CuInS₂–Poly(3-(ethyl-4-butanoate)thiophene) nanocomposite solar cells : preparation by an in situ formation route, performance and stability issues

Maiera, Eugen; Ratha, Thomas; Haas, Wernfried; Werzer, Oliver; Saf, Robert; Hofer, Ferdinand; Meissner, Dieter; **Volobujeva, Olga**;

Bereznev, Sergei; **Mellikov, Enn**; Amenitsch, Heinz; Resel, Roland; Trimmel, Gregor Solar energy materials and solar cells 2011 / p. 1354–1361 : ill

Development of silicon oxynitride nanocomposites with single-walled carbon nanotubes as protective coatings for solar cells = Üheseinaliste süsiniknanotorudega ränioksünitriidist nanokomposiitmaterjalide arendamine päikesepatareide kaitsekateteks

Shmagina, Elizaveta 2025 https://www.ester.ee/record=b5739646*est <https://digikogu.taltech.ee/et/Item/5b38d0d4-d585-496f-b18e-de06aae6a6da> <https://doi.org/10.23658/taltech.20/2025>

Development of ZnO nanorod and NiO thin film based materials for photocatalytic applications = ZnO nanovarrastel ja NiO õhukestel kiledel baseeruvate fotokatalüütiliste materjalide arendus

Chen, Zengjun 2022 <https://doi.org/10.23658/taltech.67/2022> <https://digikogu.taltech.ee/et/Item/838942f1-9577-4109-b783-8c2b5ce8def3> https://www.ester.ee/record=b5526162*est

Dichroic absorption of aligned graphene-augmented inorganic nanofibers in the terahertz regime

Xenidis, Nikolaos; Przewloka, Aleksandra; Stelmaszczyk, Kamil; Haras, Maciej; Smirnov, Serguei; Krajewska, Aleksandra; **Ivanov, Roman**; **Hussainova, Irina**; Oberhammer, Joachim; Skotnicki, Tomas; Mierczyk, Zygmunt; Lioubtchenko, Dmitri Applied materials

today 2024 / art. 102245 <https://doi.org/10.1016/j.apmt.2024.102245>

Directional conductivity in layered alumina

Hussainova, Irina; **Saffarshamshirgar, Ali**; **Ivanov, Roman**; **Volobujeva, Olga**; Romanov, Alexey; Gasik, Michael Current applied physics 2022 / p. 68-73 : ill <https://doi.org/10.1016/j.cap.2020.06.009> [Journa metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Distributed price-based power management for multibuses DC nanogrids EEMS

Carvalho da Silva, Edivan Laercio; Bellinaso, Lucas V.; Cardoso, Rafael; Michels, Leandro IEEE journal of emerging and selected topics in power electronics 2022 / p. 5509-5521 <https://doi.org/10.1109/JESTPE.2022.3152101> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Drug coating design of nanodiamonds for targeted delivery

ISN2A 2022 : 5th International Caparica Symposium on Nanoparticles, Nanomaterials and Applications : book of abstracts 2022 / p. 183

Dry reciprocating sliding wear behaviour of alumina–silicon carbide nanocomposite fabricated by ceramic injection

molding

Smirnov, Anton; Bartolome, Jose F.; Moya, J.S.; Kern, F.; Gadow, R. Journal of the European Ceramic Society 2011 / p. 469-474 : ill

Ecotoxicological impacts of industrially relevant engineered nanomaterials : effects on Tetrahymena thermophila = Tööstuslike nanomaterjalide keskkonnatoksilisuse hindamine : nanoosakeste mõju algloomale Tetrahymena thermophila

Juganson, Katre 2018 <https://digi.lib.ttu.ee/search/> https://www.ester.ee/record=b5056136*est

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 atomic layer deposited aluminium oxide on mechanical properties of porous silicon carbide

Jõgiaas, Taivo; **Kollo, Lauri**; Kozlova, Jekaterina; Tamm, Aile; **Hussainova, Irina**; Kukli, Kaupo Ceramics international 2015 / p. 7519-7528 : ill <https://doi.org/10.1016/j.ceramint.2015.02.074> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Effective electrical conductivity of carbon nanotube–epoxy nanocomposites

Kulakov, Vladimir; Aniskevich, Andrey; Ivanov, Sergey; **Poltimäe, Triinu**; Starkova, Olesja Journal of composite materials 2017 / p. 2979-2988 : ill <https://doi.org/10.1177/0021998316678304> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Efficient dark fermentative hydrogen production from enzyme hydrolyzed rice straw by Clostridium pasteurianum (MTCC116)

Srivastava, Neha; Srivastava, Manish; Kushwaha, Deepika; **Gupta, Vijai Kumar; Manikanta, Ambepu**; Ramteke, Pramod Wasudeo; **Mishra, Pradeep Kumar** Bioresource technology 2017 / p. 552-558 : ill <https://doi.org/10.1016/j.biortech.2017.04.077> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Elaboration of hard and optical oxide materials from the Ti, Zr and Hf alkoxides

Reedo, Valter; Järvekülg, Martin; Keevend, Kelli; Lange, Sven; **Kollo, Lauri** 15th International Baltic Conference "Engineering Materials & Tribology. Baltattrib - 2006" : October 5-6, 2006, Tallinn, Estonia : abstracts 2006 / p. 15-16 : ill

Electrocatalysis of oxygen reduction by iron-containing nitrogen-doped carbon aerogels in alkaline solution

Sarapuu, Ave; **Kreek, Kristiina**; Kisand, Kaarel; Kook, Mati; **Uibu, Mai; Koel, Mihkel**; Tammeveski, Kaido Electrochimica acta 2017 / p. 81-88 : ill <https://doi.org/10.1016/j.electacta.2017.01.157> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Electrocatalytic oxidation of hydroxide ions by Co3O4 and Co3O4@SiO2 nanoparticles both at particle ensembles and at the single particle level

Xie, Ruo-Chen; Volokhova, Maria; Boldin, Aleksei; Seinberg, Liis; Tsujimoto, Masahiko; Yang, Minjun; Rasche, Bertold; Compton, Richard G. ChemElectroChem 2020 / p. 1261– 1276 : ill <https://doi.org/10.1002/celec.202000230>

The electrochemical reduction of oxygen on noble metal free and biomass-based carbon nanomaterials = Hapniku elektrokeemiline redutseerumine väärismetalli-vabadel ja biomassil põhinevatel süsiniku nanomaterjalidel

Kaare, Kätlin 2022 <https://doi.org/10.23658/taltech.48/2022> <https://digikogu.taltech.ee/et/Item/0e17c0ff-8910-49a1-a7f3-8525b28b4b77> https://www.ester.ee/record=b5511685*est

Electrochemical synthesis of CdSe/CdTe nanowires for hybrid photovoltaic structures

Gurevičs, Jelena; Bereznev, Sergei; Mikli, Valdek; Naidu, Revathi; Mellikov, Enn; Kois, Julia Materials Research Society symposium proceedings 2014 / [6] p. : ill <https://doi.org/10.1557/opl.2014.576> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Electrochemical synthesis of CdSe/CdTe nanowires for hybrid photovoltaic structures

Gurevičs, Jelena; Kois, Julia; Bereznev, Sergei; Mellikov, Enn; Õpik, Andres 2014 MRS Spring Meeting & Exhibit : April 21-25, 2014, San Francisco, California : program. Symposium UU, Semiconductor Nanowires-Synthesis, Properties and Applications 2014 / [1] p

Electroconductive alumina-TiC-Ni nanocomposites obtained by spark plasma sintering

Rodriguez-Suarez, T.; Bartolome, Jose F.; **Smirnov, Anton**; Lopez-Esteban, S.; Diaz, L.A.; Torrecillas, R.; Moya, J.S. Ceramics international 2011 / p. 1631-1636 : ill

Electro-deposited nano-Ni/reduced graphene oxide composite film of corrugated surface for high voltammetric sensitivity

Alinejadian, Navid; Kazemi, Sayed Habib; Nasirpour, Farzad; Odneval, Inger Charlotta Materials chemistry and physics 2023 / art. 127288, 8 p. : ill <https://doi.org/10.1016/j.matchemphys.2022.127288> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Electrodeposited nanostructured CdSe/CdS matrix for hybrid solar cells [Online resource]

Maricheva, Jelena; Bereznev, Sergei; Maticiu, Natalia; Volobujeva, Olga; Kois, Julia Tartu Ülikooli ASTRA projekt PER ASPERA : Funktsionaalsed materjalid ja tehnoloogiad : [7-8 märts 2017, Tartu : teesid] 2017 / [1] p. : ill <http://fmtdk.ut.ee/teesid/>

Electrodeposition of CdSe nanomatrix for hybrid solar cells

Bereznev, Sergei; Gurevits, Jelena; Kois, Julia; Mellikov, Enn 12th International Conference on Nanosciences & Nanotechnologies : 7-10 July 2015, Porto Palace Conference Centre & Hotel, Thessaloniki, Greece : book of abstracts 2015 / p. 166

Electrospinning of chitosan biopolymer and polyethylene oxide blends

Varnaite-Zuravliova, Sandra; Savest, Natalja; Baltušnikaite-Guzaitiene, Julija; Abraitene, Aušra; Krumme, Andres Autex research journal 2020 / p. 426-440 : ill <https://doi.org/10.2478/aut-2019-0031> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Electrospun carbon nanofibre-based catalysts prepared with Co and Fe phthalocyanine for oxygen reduction in acidic medium

Muuli, Kaur; Mooste, Marek; Akula, Srinu; Gudkova, Viktoria; Otsus, Markus; Kikas, Arvo; Aruväli, Jaan; Treshchalov, Alexey; Kisand, Vambola; Krumme, Andres ChemElectroChem 2023 / art. e202300131, 12 p. : ill <https://doi.org/10.1002/celec.202300131> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Enhancing NIR emission in ZnAl₂O₄:Nd,Ce nanofibers by co-doping with Ce and Nd: a promising biomarker material with low cytotoxicity

Rojas Hernandez, Rocio Estefania; Rubio-Marcos, Fernando; Gorni, Giulio; Marini, Carlo; Danilson, Mati; Pascual, Laura; Ichikawa, Rodrigo Uchida; Hussainova, Irina; Fernandez, Jose Francisco Journal of materials chemistry C 2021 / p. 657-670 : ill <https://doi.org/10.1039/D0TC04752J> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Evaluation of Haar wavelet method for analysis of functionally graded and nanostructures = Haari lainikute meetodi hindamine funktsionaalgradient- ja nanostruktuuride analüüsiks

Kirs, Maarjus 2018 <https://digi.lib.ttu.ee/ii/?10625> https://www.ester.ee/record=b5151220*est

Evaluation of the potential hazard of manufactured metal-based nanomaterials to health of aquatic ecosystems: state of the art

Blinova, Irina; Muna, Marge; Lukjanova, Aljona; Kahru, Anne Journal of international scientific publications : ecology & safety 2018 / p. 174-182 : ill <https://www.scientific-publications.net/en/article/1001659/>

Explosive thermal reduction of graphene oxide-based materials : mechanism and safety implications

Qiu, Yang; Guo, Fei; Hurt, Robert; Külaots, Indrek Carbon 2014 / p. 215-223 : ill

Graphene augmented nanofibers and their versatile applications

Hussainova, Irina; Ivanov, Roman Reviews on advanced materials and technologies 2020 / p. 9-25 <https://reviewsamt.com/issues/4>

Greener protocol for chloromethylation of lignin and its diverse applications

Mohan, Mahendra Kothottil; Karpichev, Yevgen 2024 MRS Spring Meeting & Exhibit : abstract book 2024 / 1 p https://www.mrs.org/docs/default-source/meetings-events/spring-meetings/2024/2024-mrs-spring-meeting-abstract-program-3-28-2024.pdf?sfvrsn=d2ef1b09_10

Hardness of hot consolidated Al-SiC nanocomposites from planetary milled powders

Kollo, Lauri; Leparoux, Marc; Bradbury, Christopher R.; Kommel, Lembit; Carreno-Morelli, Efrain; Rodriguez-Arbaizar, M. World PM2010 proceedings. Vol. 1, Powder Manufacturing and Processing, Miniaturization and Nanotechnology, Powder Pressing 2010 / p. 341-346 https://www.researchgate.net/publication/272160715_Hardness_of_Hot_Consolidates_Al-SiC_Nanocomposites_from_Planetary_Milled_Powders

Heteroatom-doped nanocarbons derived from black liquor as the oxygen reduction reaction catalysts

Kaare, Kätlin; Kruusenberg, Ivar; Volperts, Aleksandrs; Zhurinsh, Aivars; Dobeles, Galina; Walke, Peter; Mikli, Valdek GSFMT Scientific Conference 2021 : Tartu, June 14-15, 2021 : abstracts 2021 / P 53 https://fmtdk.ut.ee/wp-content/uploads/2021/06/GSFMT_abstractbook_2021.pdf

Hierarchical microstructures and strengthening mechanisms of nano-TiC reinforced CoCrFeMnNi high-entropy alloy composites prepared by laser powder bed fusion

Chen, Hongyu; Kosiba, Konrad; Lu, Twen; Yao, Ning; Liu, Yang; Wang, Yonggang; Prashanth, Konda Gokuldoss; Suryanarayana, Challapalli Journal of Materials Science & Technology 2023 / p. 245-259 : ill <https://doi.org/10.1016/j.jmst.2022.06.053> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

High strength ductile aluminium matrix composite = Kõrgtugev ja plastne alumiiniumkomposiitmaterjal

Kallip, Kaspar 2017 <https://digi.lib.ttu.ee/ii/?9114> https://www.ester.ee/record=b4746456*est

Highlight of photocurrent generation in garbon-based nanohybrids combined with HfO₂ nanoparticles

Rauwel, Protima; Galeckas, Augustinas; Ducroquet, Frederiquet; **Rauwel, Erwan** 5th International Conference on Competitive Materials and Technology Processes : Miskolc-Lillafüred, Hungary, October 8-12, 2018 : book of abstracts 2018 / p. 166
https://www.ic-cmtp5.eu/doc/book_of_abstract_iccmtp5.pdf

Improving the oxygen barrier of polyamide food packaging by using nanoclay

Paara, Tõnis; Lange, Sven; Saal, Kristjan; Lõhmus, Rünno; **Krumme, Andres;** Mändar, Hugo Materials science = Medžiagotyra 2022 / p. 217-223 <https://doi.org/10.5755/j02.ms.28868> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

In situ tensile testing in SEM of Al-Al4C3 nanomaterials

Besterci, Michal; Velgosova, Oksana; Ivan, Jozef; Hvizdoš, Pavol; Kvackaj, Tibor; **Kulu, Priit** Estonian journal of engineering 2009 / 4, p. 247-254 : ill

Influence of microstructure and strengthening mechanism of AlMg5-Al2O3 nanocomposites prepared via spark plasma sintering

Babu, N. Kishore; **Kallip, Kaspar;** Leparoux, Marc Materials & design 2016 / p. 534-544 : ill
<http://dx.doi.org/10.1016/j.matdes.2016.01.138>

Introduction to nanomaterials and nanotechnology

Pokropivny, Vladimir; Lõhmus, Rünno; **Hussainova, Irina;** Pokropivny, Alex; Vlassov, Sergei 2007
https://www.ester.ee/record=b2310170*est

Iron and cobalt containing electrospun carbon nanofibre-based cathode catalysts for anion exchange membrane fuel cell

Sokka, Andri; Mooste, Marek; Käärik, Maike; **Gudkova, Viktoria;** Kozlova, Jekaterina; Kikas, Arvo; Kisand, Vambola; Treshchalov, Alexey; Tamm, Aile; Paiste, Päärn; Aruväli, Jaan; Leis, Jaan; **Krumme, Andres;** Holdcroft, Steven; Cavaliere, Sara; Jaouen, Frederic; Tammeveski, Kaido International Journal of Hydrogen Energy 2021 / p. 31275-31287
<https://doi.org/10.1016/j.ijhydene.2021.07.025> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Iron and cobalt phthalocyanine embedded electrospun carbon nanofiber-based catalysts for anion exchange membrane fuel cell cathode

Muuli, Kaur; Sokka, Andri; Mooste, Marek; Lilloja, Jaana; **Gudkova, Viktoria;** Käärik, Maike; Otsus, Markus; Kikas, Arvo; Kisand, Vambola; Tamm, Aile; Leis, Jaan; **Krumme, Andres** Journal of Catalysis 2023 / p. 117-130 <https://doi.org/10.1016/j.jcat.2023.04.008>
[Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Iron, cobalt, and nickel phthalocyanines tri-doped electrospun carbon nanofibre-based catalyst for rechargeable zinc-air battery air electrode

Muuli, Kaur; Rohit Kumar; Mooste, Marek; **Gudkova, Viktoria;** Treshchalov, Alexey; Piirsoo, Helle-Mai; Kikas, Arvo; Aruväli, Jaan; Kisand, Vambola; Tamm, Aile; **Krumme, Andres;** Moni, Prabu; Wilhelm, Michaela; Tammeveski, Kaido Materials 2023 / art. 4626
<https://doi.org/10.3390/ma16134626> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Katre Juganson. Nanomaterjalid - kas uus oht? Intervjuu : Katre Juganson

Juganson, Katre Teadus kolme minutiga : 2015-2016 2017 / lk. [120]-127 http://www.ester.ee/record=b4654069*est

Kvantitatiivsed struktuur-omadus sõltuvused kondenseeritud ringsüsteemide polariseeritavuse modelleerimiseks

Martin, Dana; Sild, Sulev; Maran, Uko; **Karelson, Mati** XXX Eesti keemiapäevad : teaduskonverentsi teesid = 30th Estonian Chemistry Days : abstracts of scientific conference 2007 / lk. 94-95 : ill

Magnetic nanomaterials synthesis and functionalization for biomedical applications = Magnetiliste nanomaterjalide süntees ja funktsionaliseerimine biomeditsiiniliste rakenduste jaoks

Volokhova, Maria 2022 <https://doi.org/10.23658/taltech.39/2022> <https://digikogu.taltech.ee/et/Item/49b92f4b-d0cd-4544-8a64-83ca27bf2aa3>
https://www.ester.ee/record=b5507318*est

Mechanical properties of aluminum, zirconium, hafnium and tantalum oxides and their nanolaminates grown by atomic layer deposition

Jõgiaas, Taivo; Zabels, Roberts; Tamm, Aile; Merisalu, Maido; **Hussainova, Irina** Surface and coatings technology 2015 / p. 36-42 : ill <https://doi.org/10.1016/j.surfcoat.2015.10.008> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Metal oxide nanoparticles could enter into the cells modified by surface charge and Ph

Titma, Tiina The toxicologist : supplement of Toxicological sciences : 56th Annual Meeting and ToxExpo : Baltimore, Maryland, March 12-16, 2017 2017 / p. 128 <https://www.toxicology.org/pubs/docs/Tox/2017Tox.pdf>

Microstructure and properties development of copper during severe plastic deformation

Kommel, Lembit; **Hussainova, Irina;** **Volobujeva, Olga** Materials & design 2007 / 7, p. 2121-2128 : ill
<https://www.sciencedirect.com/science/article/pii/S0261306906001713>

Microstructure evolution and mechanical properties investigation of friction stir welded AlMg5-Al2O3 nanocomposites

Babu, N. Kishore; **Kallip, Kaspar;** Leparoux, Marc TMS 2016 : 145 Annual Meeting & Exhibition : supplemental proceedings 2016 / p. 729-736 : ill http://dx.doi.org/10.1007/978-3-319-48254-5_87

Microstructure, mechanical, and impression creep properties of AlMg5-0.5 vol% Al₂O₃ nanocomposites

Talari, Mahesh Kumar; Babu, N. Kishore; **Kallip, Kaspar** Advanced engineering materials 2016 / p. 1958-1966 : ill
<http://dx.doi.org/10.1002/adem.201600301>

Microtribological studies of different nanocomposite TiC/a-C:H coatings using a modified nanoindentation setup

Schwaller, P.; Patscheider, J.; **Kollo, Lauri**; Michler, J. Tribology letters 2004 / 4, p. 757-763

Microwave synthesis of B₄C nanopowder for subsequent spark plasma sintering

Davtyan, D.; Mnatsakanyan, R.A.; **Liu, Le**; **Aydinyan, Sofiya**; **Hussainova, Irina** Journal of materials research and technology 2019 / p. 5823-5832 : ill <https://doi.org/10.1016/j.jmrt.2019.09.052> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Nanofiltrabi abil saab veest kasvõi uraani kätte

Alvela, Ain Tehnikamaailm : TM : sõidukid, elektroonika, teadus, tehnoloogia 2019 / lk. 90-91 : fot
https://www.ester.ee/record=b1073050*est

Nanokiulised materjalid

Krumme, Andres; **Viikna, Anti**; **Plamus, Tiia**; **Viirsalu, Mihkel** Teadusmõtte Eestis (X). Tehnikateadused. 3 : [artiklikogumik] 2019 / lk. 75-84 : ill., fot https://www.ester.ee/record=b5208765*est

Nanomaterial synthesis and study for biomedicine and cancer treatment

Rauwel, Erwan International Conference and Exhibition on Nanomedicine and Drug Delivery : May 29-31, 2017, Osaka, Japan 2017 / [1] p

Nanomaterial synthesis and study for biomedicine and cancer treatment

Rauwel, Erwan Journal of pharmaceuticals & drug delivery research 2017 / p. 55 <http://dx.doi.org/10.4172/2325-9604-C1-020>

Nanomaterials Al-Al₄-C₃ studied by "In-situ Tensile Test in SEM"

Besterci, Michal; Velgosova, Oksana; Ivan, Jozef; Hvizdoš, Pavol; Kvackaj, Tibor; **Kulu, Priit** 18th International Baltic Conference : Engineering Materials & Tribology : BALTMATRIB-2009 : October 22-23, 2009, Tallinn, Estonia : abstracts 2009 / p. 73

Nanomaterjalide seminar : [keemiakaitseseminaril Amsterdamsis]

Kristjuhan, Ülo Eesti Töötervishoid 2008 / 2, lk. 28

Nanomaterjalide tehnoloogiate ja uuringute keskus

Eesti teadustaristu teekaart 2019 2019 / lk. 17 : ill https://www.ester.ee/record=b5236321*est

Nanoparticulate reinforced aluminum alloy composites produced by powder metallurgy route

Kallip, Kaspar; **Kollo, Lauri**; Leparoux, Marc; Bradbury, Christopher R. Advanced composites for aerospace, marine, and land applications II : proceedings of a symposium sponsored by The Minerals, Metals & Materials Society (TMS) held during TMS 2015, March 15-19, 2015, Walt Disney World, Orlando, Florida, USA 2015 / p. 165-174 <http://dx.doi.org/10.1002/9781119093213>

Nanotechnology in military development

Pedai, Andrus; **Astrov, Igor** World Academy of Science, Engineering and Technology. International journal of chemical, nuclear, materials and metallurgical engineering 2014 / p. 1121-1125 : ill

A novel strategy to enhance biohydrogen production using graphene oxidetreated thermostable crude cellulase and sugarcane bagasse hydrolyzate under co-culture system

Srivastava, Neha; Srivastava, Manish; **Gupta, Vijai Kumar** Bioresource technology 2018 / p. 337-345 : ill
<https://doi.org/10.1016/j.biortech.2018.09.038> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Oxime-functionalized nanodiamonds as a platform for treatment of organophosphate poisoning

Karpichev, Yevgen; **Bondar, Denys**; **Starkov, Pavel**; Heinmaa, Ivo Artificial Intelligence for Material Design, Processing and Characterizations November 21 - November 30, 2020 : SYMPOSIUM S.CT01 : abstract book 2020 / S.NM01.10.06, p. 658 [Meeting abstracts](#)

Oxygen electroreduction on Zinc and Dilithium phthalocyanine modified multiwalled carbon nanotubes in alkaline media

Türk, Karl-Kalev; Kaare, Kätlin; Kruusenberg, Ivar; Merisalu, Maido; Joost, Urmas; Matisen, Leonard; Sammelselg, Väino; Zagal, José H.; Tammeveski, Kaido Journal of the Electrochemical Society 2017 / p. H338-H344 : ill
<https://iopscience.iop.org/article/10.1149/2.0821706jes/pdf>

Oxygen reduction on catalysts prepared by pyrolysis of electrospun styrene-acrylonitrile copolymer and multi-walled carbon nanotube composite fibres

Mooste, Marek; KibenaIPöldsepp, Elo; Matisen, Leonard; **Vassiljeva, Viktoria**; **Krumme, Andres** Catalysis letters 2018 / p. 1815-1826 : ill <https://doi.org/10.1007/s10562-018-2392-6> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Permittivity and breakdown voltage study of the epoxy-based nanocomposites

Siddique, Abubakar; Arshad, Amna; Aslam, Waseem; Fatima, Maham; **Sardar, Muhammad Usman**; Noon, Muhammad Asim
International review of electrical engineering 2023 / p. 373-382 <https://doi.org/10.15866/iree.v18i5.22518> [Journal metrics at Scopus](#)
[Article at Scopus](#)

Photocatalytic and antibacterial activity of nano zinc oxide/silver composite nanoparticle covered surfaces [Online resource]

Visnapuu, Meeri; **Rosenberg, Merilin; Truska, Egle**; Kisand, Vambola; Ivask, Angela International Conference "Functional Materials and Nanotechnologies 2017" : Tartu, Estonia in April, 24-27, 2017 : book of abstracts 2017 / p. 143
http://www.ester.ee/record=b4668793*est

Plasmochemical process for the production of niobium and tantalum nanopowders

Grabis, Janis; **Munter, Rein**; Blagoveshchenskiy, Yuri; Gorkunov, Valeri; Yamshchikov, Leonid Proceedings of the Estonian Academy of Sciences 2012 / p. 137-145 : ill

Polymer nanofiber deposition in lab-on-a-chip devices by electrospinning

Pardy, Tamas; Jõemaa, Rauno; Ender, Ferenc; **Rang, Toomas**; Hegedus, Kristof; Balogh-Weiser, Diana 2020 17th Biennial Baltic electronics conference, Tallinn, Estonia, October 6-8, 2020 : proceedings 2020 / 4 p. : ill
<https://doi.org/10.1109/BEC49624.2020.9277494>

Preparation of nanosize MO2C by combining solution combustion synthesis with subsequent F

Nazaretyan, Khachik; Kirakosyan, Hasmik; **Aydinyan, Sofiya**; Kharatyan, Suren JTACC+V4 : 1st Journal of Thermal Analysis and Calorimetry Conference and 6th V4 (Joint Czech-Hungarian-Polish-Slovakian) Thermoanalytical Conference : June 6–9, 2017, Budapest, Hungary : Book of Abstracts 2017 / p. 58 <https://static.akcongress.com/downloads/jtacc/jtacc2017-book-of-abstracts.pdf>

Progress and perspectives of nanomaterials for nioenergy production

Pareek, Alka; Mohan, S. Venkata Status and Future Challenges for Non-conventional Energy Sources. Volume 2. 2022 / p. 271-285
https://doi.org/10.1007/978-981-16-4509-9_12

Puine vool

Strandberg, Marek Inseneeria 2015 / lk. 10 : fot

Päikesepatareide tulevik

Krustok, Jüri Tehnikamaailm 2012 / 1, lk. 44-46 : ill https://artiklid.elnet.ee/record=b2466680*est

Päikesepatareisid täiustav teadlane Atanas Katerski : teadustöö võtab 24/7, aga paneb ikkagi silma särama

Alvela, Ain teadus.postimees.ee 2023 [Päikesepatareisid täiustav teadlane Atanas Katerski: teadustöö võtab 24/7, aga paneb ikkagi silma särama](#)

Reduction-based engineering of three-dimensional morphology of Ni-rGO nanocomposite

Alinejadian, Navid; Nasirpour, Farzad; Yus, Joaquin; Ferrari, Begona Materials Science and Engineering : B 2021 / art. 115259
<https://doi.org/10.1016/j.mseb.2021.115259> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Relationship of strength and durability of nanometals

Kommel, Lembit Abstracts of the XVI-th International Baltic Conference "Engineering Materials & Baltmattrib" : 2007, October 25-26, Riga, Latvia 2007 / p. 10

Relationship of strength and durability of nanometals

Kommel, Lembit; Rõzkina, Anna; Vlasieva, Inna Latvijas kimijas žurnals = Latvian journal of chemistry 2008 / 1, p. 55-61 : ill

A review of the synthesis and photoluminescence properties of hybrid ZnO and carbon nanomaterials

Rauwel, Protima; Salumaa, Martin; Aasna, Andres; Galeckas, Augustinas; **Rauwel, Erwan** Journal of nanomaterials 2016 / art. 5320625, 12 p. : ill <https://doi.org/10.1155/2016/5320625> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Rheological properties of MWCNT-doped titanium-oxo-alkoxide gel materials for fiber drawing

Tätte, Tanel; **Hussainov, Medhat**; Amiri, Mahsa; Vanetsev, Alexander; Paalo, Madis; **Hussainova, Irina** Materials 2022 / art. 1186
<https://doi.org/10.3390/ma15031186> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Role of defects in the physiological fate of carbon nanomaterials

Käkinen, Aleksandr; Kuusik, Rein, keemik TÜ ja TTÜ doktorikool "Funktsionaalsed materjalid ja tehnoloogiad" : 04.-05. märts 2014, Tartu 2014 / [1] p

Roughness of TiN and nanocomposite nc-Ti1-xAlxN/[alpha]-Si3N4 surface evaluated by means of AFM

Podgurski, Vitali; Nisumaa, Reet; Gregor, Andre; Adoberg, Eron; Kulu, Priit Latvijas kimijas žurnals = Latvian journal of

Sliding wear behaviour of alumina/nickel nanocomposites processed by a conventional sintering route

Rodriguez-Suarez, T.; Bartolome, Jose F.; **Smirnov, Anton**; Lopez-Esteban, S.; Torrecillas, R.; Moya, J.S. Journal of the European Ceramic Society 2011 / p. 1389-1395 : ill

SLM-processed MoS₂/Mo₂S₃ nanocomposite for energy conversion/storage applications

Alinejadian, Navid; Kazemi, Sayed Habib; Odnevall Wallinder, Inger Scientific reports 2022 / art. 5030 <https://doi.org/10.1038/s41598-022-08921-7> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Solid state processing of aluminum matrix Composites reinforced with nanoparticulate materials

Leparoux, Marc; **Kollo, Lauri**; Kwon, Hansang; **Kallip, Kaspar**; Babu, N. Kishore; AlOgab, Khaled A.; Talari, Mahesh Kumar Advanced engineering materials 2018 / art. 1800401, 18 p.: ill <https://doi.org/10.1002/adem.201800401> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Solution combustion synthesis of nanostructured molybdenum carbide

Kirakosyan, Hasmik; Nazaretyan, K.T.; Mnatsakanyan, R.A.; **Aydinyan, Sofiya**; Kharatyan, Suren Journal of nanoparticle research 2018 / art. 214, 11 p. : ill <https://doi.org/10.1007/s11051-018-4312-5> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Structural properties of ZnO nanopowders synthesized by thermal decomposition

Kedruk, Y. Y.; Paltusheva, Z. U.; Gritsenko, L. V.; **Sõritski, Vitali** Physical sciences and technology 2023 / p. 80-86 <https://doi.org/10.26577/phst.2023.v10.i2.010> [Journal metrics at Scopus](#) [Article at Scopus](#)

Study of CZTS nano-powder synthesis by hot injection method by variation of Cu and Zn concentrations

Kumar, Suresh; Kumar, Vikash; Mikli, Valdek; Varema, Tiit; Altosaar, Mare; Grossberg, Maarja Energy procedia 2016 / p. 136-143 : ill <https://doi.org/10.1016/j.egypro.2016.11.328> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Synergistic mechanisms and toxicity profiles of silver and copper nanoparticles for the development of novel antimicrobial materials = Vase ja hõbeda nanoosakeste sünergilise koosmõju mehhanismid ja rakendamine uute antimikroobsete materjalide arendamiseks

Vasiliev, Grigory 2023 <https://doi.org/10.23658/taltech.28/2023> <https://digikogu.taltech.ee/et/Item/50c08f30-1077-456a-8e2b-c9f43447d616> https://www.ester.ee/record=b5568720*est

Synthesis of CuInSe₂ nanopowder in polyethylene glycol

Tverjanovich, Andrey; **Bereznev, Sergei**; Gertsin, Andrejs; Muradova, Galina; Shoka, Andrejs; Kim, Dongsoo; **Kois, Julia**; **Öpik, Andres**; Tveryanovich, Yuri S. Scientific journal of Riga Technical University. Series 1, Material science and applied chemistry 2010 / p. 79-83 : ill <https://ortus.rtu.lv/science/en/publications/8070>

Synthesis of CuInSe₂ nanopowder in polyethylene glycol

Tverjanovich, Andrey; **Bereznev, Sergei**; Gertsin, A.; Muradova, Galina; Shoka, A.; Kim, Dongsoo; **Kois, Julia**; **Öpik, Andres**; Tveryanovich, Yuri S. Baltic Polymer Symposium 2009 : Ventspils, Latvia, September 22-25, 2009 : programme and proceedings 2009 / p. 102

Synthesis of Ni@SiO₂ and Co@SiO₂ nanomagnets after formation of NiO and Co₂O₃ nanoparticles at low temperatures using CaH₂

Volokhova, Maria; Boldin, Aleksei; Link, Joosep; Tsujimoto, Masahiko; Stern, Raivo; Seinberg, Liis Journal of materials research and technology 2022 / p. 988-992 : ill <https://doi.org/10.1016/j.jmrt.2021.12.042> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Synthesis of zwitterionic dopamine sulfonate coated cubic core@Fe@SiO₂ nanoparticles and their magnetic properties analysis

Volokhova, Maria; Boldin, Aleksei; Link, Joosep; Shugai, Anna; Pehk, Tõnis; Stern, Raivo; Seinberg, Liis Materials 2023 / 6 p. : ill

Synthesis of ternary GNP-CNT-ZrO₂ nanocomposite as a high-performance anode for lithium-ion batteries

Imanian Ghazanlou, Siavash; Imanian Ghazanlou, Siamak; Imanian Ghazanlou, Sroush; Mohammadpour, Naghmeh; **Hussainova, Irina** Journal of industrial and engineering chemistry 2023 / p. 209-221 : ill <https://doi.org/10.1016/j.jiec.2023.07.050> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Tallinnas asuti looma seadet, mis toodab veest vesinikku täiesti uut moodi [Võrguväljaanne]

Pau, Aivar forte.delfi.ee 2022 [Tallinnas asuti looma seadet, mis toodab veest vesinikku täiesti uut moodi](#)

The influence of conductive additives on the mechanical properties of electrospun mats = Juhtivate lisandite mõju elektrokedratud nanokiuliste lausmaterjalide mehaanilistele omadustele

Plamus, Tiia 2018 <https://digi.lib.ttu.ee/i/?11197> https://www.ester.ee/record=b5178372*est

TTÜ teadlased töötasid välja uudse veepuhastustehnoloogia ja -filtri

Mägi, Ruth moodnekodu.delfi.ee 2018 / fot <https://moodnekodu.delfi.ee/news/ehitus/ttu-teadlased-tootasid-valja-uudse-veepuhastustehnoloogia-ja-filtri?id=81902065>