

Air vortex assisted electrospinning unit for nanoyarn production

Viirsalu, Mihkel; Kivirand, Teet; Krumme, Andres; Savest, Natalja Baltic Polymer Symposium 2015 : Sigulda, Latvia, September 16-18 : programme and proceedings 2015 / p. 53

Air vortex electrospinning method for nanofiber yarn production [Online resource]

Viirsalu, Mihkel; Savest, Natalja; Krumme, Andres Tartu Ülikooli ASTRA projekt PER ASPERA : Funktsionaalsed materjalid ja tehnoloogiad : [7-8 märts 2017, Tartu : teesid] 2017 / [1] p <http://fmtdk.ut.ee/teesid/>

Alkoxide-based precursors for direct drawing of metal oxide micro- and nanofibres

Tätte, Tanel; **Hussainov, Medhat**; Paalo, Madis; Part, Marko; Talviste, Rasmus; Kiisk, Valter; Mändar, Hugo; Põhako, Kaija; Pehk, Tõnis; Reivelt, Kaido; Natali, Marco; Gurauskis, Jonas; Lõhmus, Ants; Mäeorg, Uno Science and technology of advanced materials 2011 / [12] p.: ill

Alkoxide-based precursors for direct drawing of metal oxide micro- and nanofibres

Tätte, Tanel; **Hussainov, Medhat**; Gurauskis, Jonas; Mändar, Hugo; Kelp, Glen; Rand, R.; Paalo, Madis; Hanschmid, Kelli; **Hussainova, Irina** Technical proceedings of the 2010 NSTI Nanotechnology Conference & Expo : Nanotech 2010. Vol.2, Nanotechnology 2010: Electronics, Devices, Fabrication, MEMS, Fluidics and Computational 2010 / p. 245-248 : ill
https://www.researchgate.net/publication/231121928_Alkoxide-based_precursors_for_direct_drawing_of_metal_oxide_micro-_and_nanofibres

Aluminate-based nanostructured luminescent materials : design of processing and functional properties

Rojas Hernandez, Rocio Estefania; Rubio-Marcos, Fernando; Fernandez, Jose Francisco; **Hussainova, Irina** Materials 2021 / art. 4591 <https://doi.org/10.3390/ma14164591> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Aluminum based composite by novelty process : Repetitive Press Roll Bonding (RPRB)

Pramono, Agus; Kollo, Lauri; Veinthal, Renno Procedia chemistry 2015 / p. 473-479 : ill
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Atomic layer deposition of alumina on g-Al₂O₃ nanofibres

Jõgiaas, Taivo; Arroval, Tõnis; **Kollo, Lauri; Hussainova, Irina** Physica status solidi (a) : applications and materials science 2014 / p. 403-408 : ill

Biomechanical Features of Graphene-Augmented Inorganic Nanofibrous Scaffolds and Their Physical Interaction with Viruse

Gasik, Michael; **Ivanov, Roman**; Kazantseva, Jekaterina; Bilotsky, Yevgen; **Hussainova, Irina** Materials 2021 / art. 164
<https://doi.org/10.3390/ma14010164> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Chemical vapour deposition of graphene coating onto ceramic nanofibers substrates and applications thereof =

Grafeenpinde keemiline aursadestus keraamilistele nanokiududele ja nende kasutus
Ivanov, Roman 2017 <https://digi.lib.ttu.ee/i/?9128>

Crack formation during post-treatment of nano- and microfibres prepared by sol-gel technique

Tätte, Tanel; Kolesnikova, Anna; **Hussainov, Medhat**; Talviste, R.; Lõhmus, Rünno; Romanov, Alexey; **Hussainova, Irina**; Part, Marko; Lõhmus, Ants Journal of nanoscience and nanotechnology 2010 / 9, p. 6009-6016 <https://pubmed.ncbi.nlm.nih.gov/21133140/>

Deep-ultraviolet emitter : rare-earth-free ZnAl₂O₄ nanofibers via a simple wet chemical route

Rojas Hernandez, Rocio Estefania; Rubio-Marcos, Fernando; Romet, Ivo; Del Campo, Adolfo; Gorni, Giulio; **Hussainova, Irina**; Fernandez, Jose Francisco; Nagirnyi, Vitali Inorganic Chemistry 2022 / p. 11886-11896 <https://doi.org/10.1021/acs.inorgchem.2c01646>
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Deposition of iron oxide nanoparticles on mesoporous alumina network by wet-combustion technology

Kamboj, Nikhil Kumar; Saffarshamshirgar, Ali; Shirshneva-Vaschenko, Elena; **Hussainova, Irina** Materials chemistry and physics 2019 / p. 340-346 : ill <https://doi.org/10.1016/j.matchemphys.2018.12.095> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Direct CVD growth of multi-layered graphene closed shells around alumina nanofibers

Ivanov, Roman; Mikli, Valdek; Kübarsepp, Jakob; Hussainova, Irina Engineering materials and tribology : selected, peer reviewed papers from the 24th International Baltic Conference on Engineering Materials & Tribology (BALTMATRIB & IFHTSE 2015), November 5-6, 2015, Tallinn, Estonia 2016 / p. 77-80 : ill <http://dx.doi.org/10.4028/www.scientific.net/KEM.674.77>

Effect of atomic oxygen irradiation on the structural and tribological properties of the MoS₂/Al₂O₃/PI composites

Zhao, Gai; Wang, Qihua; **Hussainova, Irina**; Ding, Qingjun Engineering materials and tribology : selected, peer reviewed papers from the 24th International Baltic Conference on Engineering Materials & Tribology (BALTMATRIB & IFHTSE 2015), November 5-6, 2015, Tallinn, Estonia 2016 / p. 239-243 : ill <http://dx.doi.org/10.4028/www.scientific.net/KEM.674.239>

Electrocatalysts for oxygen reduction reaction based on electrospun polyacrylonitrile, styrene-acrylonitrile copolymer and carbon nanotube composite fibres

Mooste, Marek; Kibena-Põldsepp, Elo; **Vassiljeva, Viktoria**; **Uibu, Mai**; **Krumme, Andres** Journal of materials science 2019 / p. 11618–11634 : ill <https://doi.org/10.1007/s10853-019-03725-z> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Electroconductive composite of zirconia and hybrid graphene/alumina nanofibers

Hussainova, Irina; **Drozdova, Maria**; Perez-Coll, Domingo Journal of the European Ceramic Society 2017 / p. 3713-3719 : ill <https://doi.org/10.1016/j.jeurceramsoc.2016.12.033>

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Hussainova, Irina; **Drozdova, Maria**; **Ivanov, Roman**; Kale, Sudhir S.; Jasiuk, Iwona Proceedings of the 42nd international conference on advanced ceramics and composites 2019 / p. 251–258 <https://doi.org/10.1002/9781119543343.ch25> [Conference proceeding at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Electrodeposited ZnO morphology transformations under the influence of SeO₂ additive: Rods, disks, nanosheets network

Gromōko, Inga; **Dedova, Tatjana**; **Polivtseva, Svetlana**; **Kois, Julia**; Puust, Laurits; Sildos, Ilmo; **Mere, Arvo**; **Krunks, Malle** Thin solid films 2018 / p. 10-15 : ill <https://doi.org/10.1016/j.tsf.2017.12.004> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Electrospinning and characterization of continuous piezoelectric nanofibrous yarns

Viirsalu, Mihkel NART 2019 : Nanofibers, Applications and Related Technologies : September 18-September 20, 2019, Liberec, Czech Republic : conference proceedings 2019 / p. 28

Electrospinning of a polymer membrane reinforced with carbon nanotubes = Süsinik nanotorudega tugevdatud polümeerse membraani elektroketrus

Vassiljeva, Viktoria 2017 <https://digi.lib.ttu.ee/i/?9129>

Electrospinning of nanofibrous composites with cellulose acetate, ionic liquids and graphene oxide = Tselluloosatsetaadi, ioonsete vedelike ja grafeenoksiidi nanokiuliste komposiitide elektroketrus

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Electrospun fibrous materials with propolis extracts for edible food packagings

Zelca, Zane; Merijs-Meri, Remo; **Krumme, Andres**; Bernava, Aina Molecules 2023 / art. 5497 <https://doi.org/10.3390/molecules28145497>

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 polyacrylonitrile-derived Co and Fe containing nanofibre catalysts for oxygen reduction reaction at the alkaline membrane fuel cell cathode

Mooste, Marek; Kibena-Põldsepp, Elo; **Vassiljeva, Viktoria**; Kikas, Arvo; Käärik, Maike; Kozlova, Jekaterina; Kisand, Vambola; Külaviir, Marian; Cavaliere, S.; Leis, Jaan; **Krumme, Andres**; Sammelselg, Väino; Holdcroft, Steven; Tammeveski, Kaido ChemCatChem 2020 / p. 4568–4581 : ill <https://doi.org/10.1002/cctc.202000658> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Encapsulated whiskers as electroconductive fillers for ceramics

Hussainova, Irina; **Ivanov, Roman**; Kale, Sudhir S.; Jasiuk, Iwona Short fibre reinforced cementitious composites and ceramics 2019 / p. 131-[139] https://doi.org/10.1007/978-3-030-00868-0_9

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](#)

Fabrication of NiO/NiAl₂O₄ nanofibers by combustion method

Aghayan, Marina; **Hussainova, Irina** Engineering materials and tribology : selected, peer reviewed papers from the 24th International Baltic Conference on Engineering Materials & Tribology (BALTMATRIB & IFHTSE 2015), November 5-6, 2015, Tallinn, Estonia 2016 / p. 31-34 : ill <http://dx.doi.org/10.4028/www.scientific.net/KEM.674.31>

A few-layered graphene on alumina nanofibers for electrochemical energy conversion

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Fibrous alumina-based Ni-CeO₂ catalyst : synthesis, structure and properties in propane pre-reforming

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Fibrous alumina-based Ni-MO_x (M= Mg, Cr, Ce) catalysts for propane pre-reforming

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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 <http://dx.doi.org/10.1016/j.elstat.2015.05.004>

Functionalization of alumina nanofibers with metal oxides = Alumiiniumoksiidnanokiudude funktsionaliseerimine metalloksiididega

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Functionalization of gamma-alumina nanofibers by alpha-alumina via solution combustion synthesis

Aghayan, Marina; **Voltšihhin, Nikolai**; Rodriguez, Miguel Angel; Rubio-Marcos, Fernando; **Dong, Minjie**; **Hussainova, Irina**
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Functionally graded tunable microwave absorber with graphene-augmented alumina nanofibers

Shamshirgar, Ali Saffar; **Rojas Hernandez, Rocio Estefania**; Tewari, Girish C.; Fernandez, Jose Francisco; **Ivanov, Roman**; Karppinen, Maarit; **Hussainova, Irina** ACS applied materials & interfaces 2021 / p. 21613-21625
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Graphene covered alumina nanofibers as toughening agent in alumina ceramics

Hussainova, Irina; **Drozdova, Maria**; **Aghayan, Marina**; **Ivanov, Roman**; Perez-Coll, Domingo 13th International Ceramics Congress. Part B 2014 / p. 49-53

Graphene-augmented nanofiber scaffolds demonstrate new features in cells behaviour

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Graphene-augmented nanofiber scaffolds trigger gene expression switching of four cancer cell types

Kazantseva, Jekaterina; **Ivanov, Roman**; Gasik, Michael; Neuman, Toomas; **Hussainova, Irina** ACS biomaterials science & engineering 2018 / p. 1622-1629 : ill <https://doi.org/10.1021/acsbiomaterials.8b00228> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Graphene-ceramic hybrid nanofibers for ultrasensitive electrochemical determination of ascorbic acid

Taleb, Masoud; **Ivanov, Roman**; **Bereznev, Sergei**; Kazemi, Sayed Habib; **Hussainova, Irina** Microchimica acta 2017 / p. 897-905 : ill <https://doi.org/10.1007/s00604-017-2085-7>

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Hierarchically structured functional ceramic composites with graphene augmented nanofibers = Hierarhiliselt struktureeritud funktsionaalsed keraamilised komposiidid grafeenlisandiga nanokiududega

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Hybrid graphene/alumina nanofibers for electroconductive zirconia

Drozdova, Maria; Perez-Coll, Domingo; **Aghayan, Marina**; **Ivanov, Roman**; Rodriguez, Miguel Angel; **Hussainova, Irina**

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Hybrid graphene-ceramic nanofibre network for spontaneous neural differentiation of stem cells

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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](#)

Influence of interphases on the mechanical properties of alumina nanofibers reinforced alumina nanocomposite

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Influence of preparation process on morphology and conductivity of carbon black-based electrospun nanofibers

Tarasova, Elvira; Byzova, Arina; Savest, Natalja; Viirsalu, Mihkel; Gudkova, Viktoria; Märtson, Triin; Krumme, Andres Fullerenes, nanotubes and carbon nanostructures 2015 / p. 695-700 : ill <http://dx.doi.org/10.1080/1536383X.2014.974090>

Investigation of influence of conductivity on the polyaniline fiber mats, produced via electrospinning

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The investigation of the production of salt-added polyethylene oxide/chitosan nanofibers

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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>

Low temperature, spark plasma sintering behavior of zirconia added by a novel type of alumina nanofibers

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Mechanical properties and self-healing capacity of ultra high performance fibre reinforced concrete with alumina nanofibres : tailoring ultra high durability concrete for aggressive exposure scenarios

Cuenca, Estefania; D'Ambrosio, Leonardo; Lizunov, Dennis; **Tretjakov, Aleksei; Volobujeva, Olga**; Ferrara, Liberato Cement and concrete composites 2021 / art. 103956, 17 p <https://doi.org/10.1016/j.cemconcomp.2021.103956> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Mesoporous fibrous silicon nitride by catalytic nitridation of silicon

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

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Novel alumina-nanocarbon hybrids

Hussainova, Irina; Anoshkin, Ilya; **Ivanov, Roman; Kübarsepp, Jakob** 38th International Conference & Exposition on Advanced Ceramics and Composites : abstract book : January 26-31, 2014, Daytona Beach, Florida 2014 / p. 117

Novel method for producing electrospun composite nanofibre yarns

Viirsalu, Mihkel; Savest, Natalja; Plamus, Tiia; Vassiljeva, Viktoria; Krumme, Andres Proceedings of the Estonian Academy of Sciences 2018 / p. 169-174 : ill <https://doi.org/10.3176/proc.2018.2.09> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Performance of TiO₂:SM3+ based optical sensor embedded in cavitated polymer films

Tikk, Taavi; Lange, Sven; Paara, Tõnis; Eltermann, Marko; **Krumme, Andres** Graduate School of Functional Materials and Technology (GSFMT) Scientific Conference : abstracts 2022 / 62 I. [Graduate School of Functional Materials and Technology \(GSFMT\) Scientific Conference 2022](#)

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>

Properties of chitin extracted from Estonian mushrooms

Baumgartner, Stephanie; **Viirsalu, Mihkel; Krumme, Andres;** Mendez, James Proceedings of the Estonian Academy of Sciences 2019 / p. 333-336 : ill http://www.kirj.ee/32362/?tpl=1061&c_tpl=1064 <https://doi.org/10.3176/proc.2019.3.09> [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

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A Review on graphene-based electrospun conductive nanofibers, supercapacitors, Anodes, and cathodes for lithium-ion batteries

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Spinel alumina nanofibers synthesis via ALD coating of alumina nanofibers

Rauwel, Erwan; Nilsen, Ola; **Rauwel, Protima;** Galeckas, Augustinas; Wragg, David; Walmsley, John; **Hussainova, Irina;** Soots, Karel WG2 workshop and 4th ALDCoE annual seminar : 23-24 May 2016, Helsinki, Finland : abstracts 2016 / [1] p. : ill

Structure and rheological behavior of alkoxide-based precursors for drawing of metal oxide micro- and nanofibres

Hussainov, Medhat; Tätte, Tanel; Paalo, Madis; Gurauskis, Jonas; Mändar, Hugo; Lõhmus, Ants Advanced materials research 2011 / p. 354-358 https://www.researchgate.net/publication/240305001_Structure_and_Rheological_Behavior_of_Alkoxide-Based_Precursors_for_Drawing_of_Metal_Oxide_Micro-_and_Nanofibres

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The impact of 1-butyl-3-methylimidazolium chloride on electrospinning process of SAN polymer solutions and electrospun fiber morphology

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The influence of alumina and zirconia coats on the tribological properties of alumina nanofibers

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