

**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](#)

**Alumina-graphene hybrid materials for electrochemical sensing of bio-analytes = Alumiiniumoksiid-grafeenhübridmaterjalid biovedelike elektrokeemiliseks tuvastamiseks**  
**Taleb, Masoud** 2018 <https://digi.lib.ttu.ee/?11202> [https://www.ester.ee/record=b5180418\\*est](https://www.ester.ee/record=b5180418*est)

**Analysing carbon based hybrid nanocomposites displaying interfacial phenomena with scanning transmission electron microscopy and related techniques**  
**Rauwel, Protima; Rauwel, Erwan** Microscopy and imaging science : practical approaches to applied research and education 2017 / p. 389-400 : ill <http://www.microscopy7.org/>

**Analysis and design of graphene laminates [Online resource]**  
**Majak, Jüri; Kirs, Maarjus; Karjust, Kristo** International Conference "Functional Materials and Nanotechnologies 2017" : Tartu, Estonia in April, 24-27, 2017 : book of abstracts 2017 / p. 67 [http://www.ester.ee/record=b4668793\\*est](http://www.ester.ee/record=b4668793*est)

**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

**Bidirectional Mo<sub>4</sub>/3CTx MXene/graphene aerogels for tailored microwave absorption**  
Shamshirgar, Ali Saffar; Qin, Lei; **Rojas Hernandez, Rocio Estefania**; Halim, Joseph; Fernandez, Jose F.; **Hussainova, Irina**; Rosen, Johanna ACS Applied Nano Materials 2025 / p. 1978-1990 <https://doi.org/10.1021/acsnm.4c06555>

**Bifunctional oxygen electrocatalyst based on Fe, Co, and nitrogen co-doped graphene-coated alumina nanofibers for Zn-air battery air electrode**  
Mooste, Marek; Ahmed, Zubair; Kapitulskis, Pavels; **Ivanov, Roman**; Treshchalov, Alexey; Piirsoo, Helle-Mai; Kikas, Arvo; Kisand, Vambola; Kukli, Kaupo; **Hussainova, Irina**; Tammeveski, Kaido Applied Surface Science 2024 / art. 160024  
<https://doi.org/10.1016/j.apsusc.2024.160024> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Biomass-derived graphene-like catalyst material for oxygen reduction reaction**  
**Kaare, Kätlin**; Yu, Eric; Käämbre, Tanel; Volperts, Aleksandrs; Dobele, Galina; Zhurinsh, Aivars; Niaura, Gediminas; Tamasauskaite-Tamasiunaite, Loreta; Norkus, Eugenijus; Kruusenberg, Ivar ChemNanoMat 2021 <https://doi.org/10.1002/cnma.202000615>

**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](#)

**Characteristic low-energy Raman modes in twisted bilayer graphene**  
Kahro, Tauno; Niilisk, Ahti; Rähn, Mihkel; **Grossberg, Maarja**; Alles, Harry TÜ ja TTÜ doktorikool "Funktsionaalsed materjalid ja tehnoloogiad" : 04.-05. märts 2014, Tartu 2014 / [1] p. : ill

**Characterization of silicon carbide (SiC) and graphene-based novel semiconductor devices = Ränikarbiidil (SiC) ja grafeenil põhinevate uudsete pooljuhtstruktuuride karakteriseerimine**  
**Rashid, Muhammad Haroon** 2021 [https://www.ester.ee/record=b5397240\\*est](https://www.ester.ee/record=b5397240*est) <https://digikogu.taltech.ee/et/Item/a64fd50e-125c-49ad-b0a6-6ad2e01b8bfa> <https://doi.org/10.23658/taltech.6/2021>

**Chemical vapour deposition growth of graphene and carbon nanotubes on alumina**  
**Ivanov, Roman**; Anoshkin, Ilya; **Hussainova, Irina** TÜ ja TTÜ doktorikool "Funktsionaalsed materjalid ja tehnoloogiad" : 04.-05. märts 2014, Tartu 2014 / [1] p

**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>

**Comparative investigation of the graphene-on-silicon carbide and CVD graphene as a basis for biosensor application**  
**Sleptšuk, Natalja**; Lebedev, Alexander A.; Elisseyev, Ilya; **Korolkov, Oleg**; **Toompuu, Jana**; **Land, Raul**; **Mikli, Valdek**; Zubov, Alexander; **Rang, Toomas** Modern Materials and Manufacturing 2019 : 12th International DAAAM Baltic Conference and 27th International Baltic Conference BALTMATTRIB 2019. Selected, peer reviewed papers from the conference Modern Materials and Manufacturing 2019 (MMM 2019), April 24-26, 2019, Tallinn, Estonia 2019 / p. 185-190 : ill [https://www.ester.ee/record=b5235278\\*est](https://www.ester.ee/record=b5235278*est) <https://www.scientific.net/KEM.799.185> <https://doi.org/10.4028/www.scientific.net/KEM.799.185> [Conference proceeding at Scopus](#) [Article at Scopus](#)

### **Conjoined structures of carbon nanotubes and graphene nanoribbons**

Krasnenko, Veera; Boltruško, Vadim; **Klopov, Mihhail**; Hižnjakov, Vladimir *Physica scripta* 2014 / 4 p.: ill <https://doi.org/10.1088/0031-8949/89/04/044008> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Corrosion behavior of 17–4 PH stainless steel manufactured by laser powder bed fusion: Effect of graphene coating and heat-treatment**

Maharana, P.; Sahu, D. K.; Sahoo, D.; Mallik, A.; Mishra, S.; Ramakrishna, M.; **Prashanth, Konda Gokuldoss**; Gollapudi, S. *Materials today communications* 2024 / art. 111098 <https://doi.org/10.1016/j.mtcomm.2024.111098>

### **CVD nanocrystalline multilayer graphene coated 3D-printed alumina lattices**

Ramírez, Cristina; **Shamshirgar, Ali Saffar**; Perez-Coll, Domingo; Osendi, María Isabel; Miranzo, Pilar; Tewari, Girish C.; Karppinen, Maarit; **Hussainova, Irina**; Belmonte, Manuel *Carbon* 2023 / p. 36-46 <https://doi.org/10.1016/j.carbon.2022.10.085> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Design optimization of graphene laminates for maximum fundamental frequency**

**Majak, Jüri; Kirs, Maarjus; Eerme, Martin; Tungal, Ernst; Lepikult, Toomas** *Proceedings of the Estonian Academy of Sciences* 2017 / p. 354-362 : ill <https://doi.org/10.3176/proc.2017.4.08> [https://artikliid.elnet.ee/record=b2830810\\*est](https://artikliid.elnet.ee/record=b2830810*est) [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Design optimization of multilayer graphene sheets**

**Majak, Jüri; Eerme, Martin; Arak, Marti; Kirs, Maarjus; Mikola, Madis** *First International Conference on Mechanics of Composites (MECHCOMP2014)* : Stony Brook University, Long Island, New York, June 8-12, 2014 2014 / p. 175

### **Determination of carcinoembryonic antigen as a tumor marker using a novel graphene-based label-free electrochemical immunosensor**

Jozghorbani, Maryam; Fathi, Mojtaba; Kazemi, Sayed Habib; **Alinejadian, Navid** *Analytical biochemistry* 2021 / art. 114017 <https://doi.org/10.1016/j.ab.2020.114017> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

Xenidis, Nikolaos; Przewłoka, 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>

### **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 <https://doi.org/10.4028/www.scientific.net/KEM.674.77> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

### **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> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Effect of graphene nanoplatelet content on mechanical and elevated-temperature tribological performance of self-lubricating ZE10 magnesium alloy nanocomposites**

Kandemir, Sinan; **Yöyler, Sibel; Kumar, Rahul, 1993-; Antonov, Maksim**; Dieringa, Hajo *Lubricants* 2024 / art. 52 <https://doi.org/10.3390/lubricants12020052> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Effects of the inclusion of armchair graphene nanoribbons on the electrical conduction properties of NN-heterojunction 4H-6H/SiC diodes**

**Rashid, Muhammad Haroon; Koel, Ants; Rang, Toomas** *Advanced Materials and Processing Technologies : 2nd International Conference on Sensors, Materials and Manufacturing (ICSMM 2018, November 19-21, 2018, Taiwan); International Conference on Materials Sciences and Nanomaterials (ICMSN 2018, July 11-13, 2018, United Kingdom) and the 2nd International Conference on Materials and Intelligent Manufacturing (ICMIM 2018, August 24-26, 2018, Japan) 2019* / p. 29-35 : ill <https://doi.org/10.4028/www.scientific.net/MSF.962.29> [Conference proceeding at Scopus](#) [Article at Scopus](#)

### **Elastic models of defects in two-dimensional crystals**

Kolesnikova, Anna; Orlova, T. S.; **Hussainova, Irina**; Romanov, Alexey *Physics of the solid state* 2014 / p. 2573-2579 : ill <https://doi.org/10.1134/S1063783414120166> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Electrochemical behaviour of graphene-based materials towards ORR**

Kibena-Pöldsepp, Elo; Lilloja, Jaana; Merisalu, Maido; **Rauwel, Protima** *BEC 16 : the 6th Baltic Electrochemistry Conference : Electrochemistry of Functional Interfaces and Materials : 15th-17th June 2016, Helsinki, Finland 2016* / p. 121

### **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> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Electroconductive oxide ceramics with hybrid graphenated nanofibers = Elektrijuhtiva oksiid-grafeenkiudkeraamika tehnoloogia ja püsivus**

**Drozdova, Maria** 2017 <https://digi.lib.ttu.ee/i/?91119> [http://www.ester.ee/record=b4748247\\*est](http://www.ester.ee/record=b4748247*est)

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

**Javed, Kashif** 2019 <https://digi.lib.ttu.ee/i/?12424>

**Evolution of Dirac cone in disclinated graphene**

Rozhkov, M. A.; Kolesnikova, A. L.; **Hussainova, Irina** *Reviews on advanced materials science* 2018 / p. 137-142 : ill

<https://doi.org/10.1515/rams-2018-0057> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**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

**Faktikontroll : Grafeenoksiidi sisaldus vaktsiinides on ülemaailmse levikuga vale, mis ka Eestis vaibuda ei taha [Võrguväljaanne]**

Raudsik, Heliis *epl.delfi.ee* 2022 ["FAKTIKONTROLL | Grafeenoksiidi sisaldus vaktsiinides on ülemaailmse levikuga vale, mis ka Eestis vaibuda ei taha."](#)

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

**Hussainova, Irina; Ivanov, Roman;** Stamatina, Serban; Anoshkin, Ilya; Skou, Eivind; Nasibulin, Albert *Carbon* 2015 / p. 157-164 : ill

<https://doi.org/10.1016/j.carbon.2015.03.004> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**First principles simulations of phenol and methanol detector based on pristine graphene nanosheet and armchair graphene nanoribbons**

**Rashid, Muhammad Haroon; Koel, Ants; Rang, Toomas** *Sensors* 2019 / art. 2731, 14 p. : ill <https://doi.org/10.3390/s19122731>

[Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**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

<https://doi.org/10.1021/acsami.1c02899> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**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>

**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 oxide-terminated hyperbranched amino polymer-carboxymethyl cellulose ternary nanocomposite for efficient removal of heavy metals from aqueous solutions**

Kong, Qiaoping; **Preis, Sergei;** Li, Leli; Luo, Pei; Hua, Yun; Wei, Chaohai *International journal of biological macromolecules* 2020 / p. 581–592 : ill <https://doi.org/10.1016/j.ijbiomac.2020.01.185> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**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](#)

[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> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Graphene-encapsulated aluminium oxide nanofibers as a novel type of nanofillers for electroconductive ceramics**

**Ivanov, Roman; Hussainova, Irina; Aghayan, Marina; Drozdova, Maria;** Perez-Coll, Domingo; Rodriguez, Miguel Angel; Rubio-Marcos, Fernando *Journal of the European Ceramic Society* 2015 / p. 4017-4021 : ill <https://doi.org/10.1016/j.jeurceramsoc.2015.06.011> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

[Journal metrics at WOS](#) [Article at WOS](#)

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

**Saffarshamshirgar, Ali** 2021 [https://www.ester.ee/record=b5453046\\*est](https://www.ester.ee/record=b5453046*est) <https://digikogu.taltech.ee/et/Item/13881820-10e9-4116-bf2c-440a4c2f7b9b> <https://doi.org/10.23658/taltech.42/2021>

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

Kazantseva, Jekaterina; **Hussainova, Irina**; **Ivanov, Roman**; Neumann, Toomas; Gasik, Michael Interface focus 2018 / 6 p. : ill <https://doi.org/10.1098/rsfs.2017.0037> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Investigation of the graphene-on-silicon-carbide and CVD graphene as a basis for bioimpedance sensor applications : poster**

**Sleptšuk, Natalja**; **Land, Raul**; **Toompuu, Jana**; **Lebedev, Alexander A.**; Davydov, Valery; Eliseyev, Ilya; Kalinina, Evgenia; **Korolkov, Oleg**; **Rang, Toomas** ePosters 2018 / 1 p.: ill <https://cdn.technologynetworks.com/ep/pdfs/natalja-sleptsuk-a-raul-land-a-jana-toompuu-a-alexander-lebedev-b-valery-davydov-b-ilya-eliseyev-b.pdf>

### **Layered functionally graded alumina ceramic composites**

**Drozdova, Maria**; **Ivanov, Roman**; Rodriguez, Miguel Angel; **Hussainova, Irina** ECerS 2017 : 15th Conference & Exhibition of the European Ceramic Society, July 9–13, 2017, Budapest, Hungary : Book of abstracts 2017 / p. 227 <https://static.akcongress.com/downloads/ecers/ecers2017-abstract-book.pdf>

### **Layered structure of alumina/graphene-augmented-inorganic-nanofibers with directional electrical conductivity**

**Saffarshamshirgar, Ali**; **Rojas Hernandez, Rocio Estefania**; **Mikli, Valdek**; **Karppinen, Maarit**; **Hussainova, Irina** Carbon 2020 / p. 634-645 <https://doi.org/10.1016/j.carbon.2020.06.038> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Nanoscale vibration analysis of graphene sheets using nonlocal elasticity theory**

**Majak, Jüri**; **Pohlak, Meelis**; **Eerme, Martin**; **Kers, Jaan** Proceedings of the International Conference on Mechanics of Nano, Micro and Macro Composite Structures : 18 to 20 June 2012 2012 / [1] p

### **Nanoscale vibration analysis of graphene sheets using nonlogical elasticity theory**

**Majak, Jüri**; **Kirs, Maarjuss**; **Mikola, Madis**; **Heero, Marek**; **Herranen, Henrik** ICCE 21 proceedings 2013

### **Nanoscale vibration analysis of orthotropic graphene sheets**

**Majak, Jüri**; **Eerme, Martin**; **Lepikult, Toomas**; **Tungel, Ernst** ICCS17 : 17th International Conference on Composite Structures : Portugal 17-21 June 2013 : book of abstracts 2013

### **Non-equilibrium grain boundaries with excess energy in graphene**

Romanov, A. E.; Kolesnikova, A. L.; Orlova, T. S.; **Hussainova, Irina**; Bougrov, V. E.; Valiev, R. Z. Carbon 2015 / p. 223-231 : ill <https://doi.org/10.1016/j.carbon.2014.09.053> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Phenol and methanol detector based on pristine graphene nano-sheet: a first principles study [Online resource]**

**Rashid, Muhammad Haroon**; **Koel, Ants**; **Rang, Toomas** BEC 2018 : 2018 16th Biennial Baltic Electronics Conference (BEC) : proceedings of the 16th Biennial Baltic Electronics Conference, October 8-10, 2018 2018 / 4 p.: ill <https://doi.org/10.1109/BEC.2018.8600982>

### **Porous structures in stacked, crumpled and pillared graphene-based 3D materials**

Guo, Fei; Creighton, Megan; Chen, Yantao; Hurt, Robert; **Külaots, Indrek** Carbon 2014 / p. 476-484 : ill

### **Quantifying graphitic edge exposure in graphene-based materials and its role in oxygen reduction reactions**

Stamatin, Serban; **Hussainova, Irina**; **Ivanov, Roman**; Colavita, Paula E. ASC catalysis 2016 / p. 5215-5221 : ill <https://doi.org/10.1021/acscatal.6b00945> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **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](#)

### **Relations between metal ion characteristics and adsorption performance of graphene oxide: A comprehensive experimental and theoretical study**

Kong, Qiaoping; **Preis, Sergei**; Li, Leli; Luo, Pei; Wei, Cong; Li, Zemin; Hu, Yun; Wei, Chaohai Separation and purification technology 2020 / art. 115956 ; 8 p. : ill <https://doi.org/10.1016/j.seppur.2019.115956> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

**Javed, Kashif**; **Oolo, Marco**; **Savest, Natalja**; **Krumme, Andres** Critical Reviews in Solid State and Materials Sciences 2019 / p. 427-443 : ill <https://doi.org/10.1080/10408436.2018.1492367> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Spent Li-Ion battery graphite turned into valuable and active catalyst for electrochemical oxygen reduction**

Liivand, Kerli; Kazemi, Maryam; **Walke, Peter**; Mikli, Valdek; Macdonald, Digby D.; Kruusenberg, Ivar ChemSusChem 2021 / p. 1103-1111 <https://doi.org/10.1002/cssc.202002742> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Structure and energy of intercrystallite boundaries in graphene**

Kolesnikova, Anna; Rozhkov, M. A.; **Hussainova, Irina** Reviews on advanced materials science 2017 / p. 91-98 [http://www.ipme.ru/e-journals/RAMS/no\\_15217/contents.html](http://www.ipme.ru/e-journals/RAMS/no_15217/contents.html) [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Thermal transport and thermoelectric effect in composites of alumina and graphene-augmented alumina nanofibers**

**Saffarshamshirgar, Ali**; Belmonte, Manuel; Tewari, Girish C.; **Rojas Hernandez, Rocio Estefania**; Seitsonen, Jani; **Ivanov, Roman**; Karppinen, Maarit; Miranzo, Pilar; **Hussainova, Irina** Materials 2021 / art. 2242 <https://doi.org/10.3390/ma14092242> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **3D alumina-graphene hybrid nanofibers as a binder-free cathode for rechargeable LiIS batteries**

**Taleb, Masoud**; **Ivanov, Roman**; **Hussainova, Irina** Modern Materials and Manufacturing 2019 : 12th International DAAAM Baltic Conference and 27th International Baltic Conference BALTMATTRIB 2019. Selected, peer reviewed papers from the conference Modern Materials and Manufacturing 2019 (MMM 2019), April 24-26, 2019, Tallinn, Estonia 2019 / p. 191-196 : ill <https://www.scientific.net/KEM.799.191> [https://www.ester.ee/record=b5235278\\*est](https://www.ester.ee/record=b5235278*est) <https://doi.org/10.4028/www.scientific.net/KEM.799.191> [Conference proceeding at Scopus](#) [Article at Scopus](#)

### **Transverse intrinsic localized modes in monatomic chain and in graphene**

Hižnjakov, Vladimir; **Klopov, Mihhail**; Šelkan, Aleksander Physics letters A 2016 / p. 1075–1081 <https://doi.org/10.1016/j.physleta.2016.01.011> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Tunneling-percolation behavior of graphene-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](https://doi.org/10.1007/978-3-030-00868-0_9) [Article collection metrics at Scopus](#) [Article at Scopus](#)

### **Ultra-wideband integrated graphene-based absorbers for terahertz waveguide systems**

Campion, James; Xenidis, Nikolaos; Smimov, Serguei; **Ivanov, Roman**; Oberhammer, Joachim; **Hussainova, Irina**; **Lioubtchenko, Dmitri** Advanced Electronic Materials 2022 / art. 2200106 <https://doi.org/10.1002/aelm.202200106> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Wear performance of hierarchically structured alumina reinforced by hybrid graphene encapsulated alumina nanofibers**

**Hussainova, Irina**; **Baroninš, Janis**; **Drozdova, Maria**; **Antonov, Maksim** Wear 2016 / p. 287-295 : ill <https://doi.org/10.1016/j.wear.2016.09.028> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Versatile graphene-alumina nanofibers for microwave absorption and EMI shielding**

Saffar Shamshirgar, Ali; Alvarez, Maria Fernandez; Del Campo, Adolfo; Fernandez, Jose Francisco; Rojas Hernandez, Rocio Estefania; Ivanov, Roman; Rosen, Johanna; **Hussainova, Irina** Carbon 2023 / art. 118057 <https://doi.org/10.1016/j.carbon.2023.118057> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Visualizing ribbon-to-ribbon heterogeneity of chemically unzipped wide graphene nanoribbons by silver nanowire-based tip-enhanced raman scattering microscopy**

Inose, Tomoko; Toyouchi, Shuichi; Hara, Shinnosuke; Sugioka, Shoji; **Walke, Peter R.**; Oyabu, Rikuto; Fortuni, Beatrice; Peeters, Wannes; Usami, Yuki; Hirai, Kenji Small 2024 / art. 2301841, 10 p. : ill <https://doi.org/10.1002/sml.202301841> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Упругие модели дефектов в двумерных кристаллах**

Kolesnikova, Anna; Orlova, T.; **Hussainova, Irina**; Romanov, Alexey Физика твердого тела 2014 / с. 2480-2485 : ил