

Alumina/graphene/Cu hybrids as highly selective sensor for simultaneous determination of epinephrine, acetaminophen and tryptophan in human urine

Taleb, Masoud; Ivanov, Roman; Bereznev, Sergei; Kazemi, Sayed Habib; **Hussainova, Irina** Journal of electroanalytical chemistry 2018 / p. 184-192 : ill <https://doi.org/10.1016/j.jelechem.2018.06.013> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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/>

Anisotropic thermal conduction in hierarchically structured composite using graphene-augmented alumina nanofibers

Saffarshamshirgar, Ali; Ivanov, Roman; Gasik, Michael; **Hussainova, Irina** XVI Conference and Exhibition Of The European Ceramic Society : abstract book 2019 / p. 167

Application and Behavior of Nanomaterials in Water Treatment

Special issue of Nanomaterials

2019 http://www.mdpi.com/journal/nanomaterials/special_issues/nano_water <https://doi.org/10.3390/books978-3-03921-172-2>

Applied wave mathematics II : selected topics in solids, fluids, and mathematical methods and complexity

2019 <https://doi.org/10.1007/978-3-030-29951-4> https://www.esteeer.com/record=b5303400*est

Bidirectional Mo4/3CTx MXene/graphene aerogels for tailored microwave absorption

Shamshirgar, Ali Saffar; Qin, Leiqiang; 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/acsanm.4c06555>

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](#)

Comparative investigation of the graphene-on-silicon carbide and CVD graphene as a basis for biosensor application

Sleptšuk, Natalja; Lebedev, Alexander A.; Eliseyev, 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.esteeer.com/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](#)

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> [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> [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 (BALTMATTRIB & 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](#)

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](#)

Fabrication of alumina nanocomposites reinforced by a novel type of alumina nanofiber and graphene coated alumina nanofiber

Drozdova, Maria; Ivanov, Roman; Aghayan, Marina; Hussainova, Irina; Dong, Minjie; Rodriguez, Miguel Angel Proceedings of the 9th International Conference of DAAAM Baltic Industrial Engineering, 24-26th April 2014, Tallinn, Estonia 2014 / p. 337-341 : ill

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 coated alumina nanofibers as zirconia reinforcement

Ivanov, Roman; Hussainova, Irina; Aghayan, Marina; Petrov, Mihhail Proceedings of the 9th International Conference of DAAAM Baltic Industrial Engineering, 24-26th April 2014, Tallinn, Estonia 2014 / p. 348-353 : ill

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](#)

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](#)

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](#)

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](#)

A novel approach to electroconductive ceramics filled by graphene covered nanofibers

Drozdova, Maria; Hussainova, Irina V.; Pérez-Coll, Domingo; **Aghayan, Marina; Ivanov, Roman A.;** Rodriguez, M. A. Materials and Design 2016 / p. 291 - 298 <https://doi.org/10.1016/j.matdes.2015.10.148> [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>

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](#)

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](#)

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](#)

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

Campion, James; Xenidis, Nikolaos; Smirnov, 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](#)