

## **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](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**

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## **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/acsnm.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.; 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.esteeer.org/record=b5235278\\*est](https://www.esteeer.org/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**

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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 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**

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

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

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### **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](#)

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

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### **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**

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

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