DR. EVGENY GALUNIN

Date of birth: December 15, 1976

Place of Birth: Tambov (Russia)

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EDUCATION

11/2006 – 12/2010 **Barcelona University (UB), Barcelona, Spain. Department of Analytical Chemistry.**
PhD course "Analytical Chemistry of Environment and Pollution";
PhD degree (cum laude) obtained on 20/12/2010;
PhD Thesis title: "Sorption-Desorption of Rare-Earth Elements onto Smectites and Secondary Minerals"

09/1994 – 06/1999 **Tambov State Technical University, Tambov, Russia.**
Automation Engineer´s degree (with honors) obtained on 22/06/1999.

09/1984 – 06/1994 **Tambov Classical High School, Tambov, Russia.**

SUPPLEMENTARY EDUCATION

05/10/2016 – 05/20/2016 **Tomsk Polytechnic University, Tomsk, Russia.**
Advanced training course: "Development and Applications of Nanoscale Materials and Systems in Medicine, Environment and Biotechnology" (72 hrs).

06/2006 – 07/2006 **Center for Linguistic Normalization, Barcelona, Spain.**
Catalan language course (basic level).

02/2005 – 05/2005 **CARITAS Church Organization, Elche, Spain.**
Spanish language course (high level).

03/1994 – 04/1994 **Royal Grammar School, Newcastle-upon-Tyne, Great Britain. UK.**
Practical English course.

09/1992 – 06/1994 **Tambov Classical High School, Tambov, Russia.**
Technical English course (Translator qualification obtained on 18/06/1994);
English interpretation course (Guide-Interpreter qualification obtained on 18/06/1994);
Typing course (Secretary-Typist qualification obtained on 18/06/1994).

WORK EXPERIENCE

10/2019 – present **Tomsk Polytechnic University, Tomsk, Russia. Research School of Chemistry & Applied Biomedical Sciences.**
Research Associate.
- Synthesis and applications of carbon nanomaterials (graphene oxide, graphene-based nanocomposites);
- Coordination of graphene-related projects;
- Writing, translation (Russian/English/Spanish) and review of research papers.

05/2014 – 09/2019 **Tambov State Technical University, Tambov, Russia. Department "Technology and Methods of Nanoproducts Manufacturing".**
Leading Engineer. Senior Research Associate.
- Synthesis of carbon nanomaterials (CNTs, graphene nanoplatelets, hybrids, etc);
- Sorption-desorption of heavy metals on nanostructured sorbents (soil remediation and water purification purposes);
- Writing, translation (Russian/English/Spanish) and review of research papers.

10/2011 – 04/2014 **Londrina Parana-State University, Londrina, Brazil. Department of Chemistry.**
Postdoctoral Fellow. Research Associate.
- Speciation and sorption-desorption of heavy metals in clays, soils and sediments; mathematical modeling of those processes;
- Application of molecularly imprinted polymers and nanostructured materials for the preconcentration and/or speciation of heavy metals;
- Writing, translation (Portuguese/English) and review of research papers.

11/2006 – 12/2010 **Barcelona University, Spain. Department of Analytical Chemistry.**
Doctoral Fellow. Research Associate.
- Development and application of laboratory methods to evaluate the effect of the incorporation of heavy metals and radionuclides into environmental samples;
- Improvement of the analytical methodology for the determination and study of the interaction and mobility (sorption-desorption, diffusion) of pollutants in environmental scenarios.

12/2003 – 02/2005 **"InterComp" Ltd., Moscow, Russia.**
Interpreter/Translator.
- Interpreting (English/Russian) at business meetings, congresses and conferences;
- Translation of technical documents and instructions.

11/2000 – 11/2003 **Moscow State University, Russia. Department of Radioactive Chemistry.**
Laboratory Associate.
- Extraction of oxo anions by quaternary salts in organic solvents using radioactive markers (Re-188).

02/2000 – 11/2000 **State Research Centre "Institute for Physics and Power Engineering, Obninsk, Russia. Laboratory of Pure Radionuclides.**
Engineer-Technologist (3-rd rank).
- Production of radiopharmaceuticals for cancer therapy from radionuclide generators of Tc-99m and Re-188/

STAYS AT RESEARCH CENTERS

Research Institute of the Materials Science, Seville, Spain (02/2008, 04/2008, 05/2010).

- Studying the bases of sol-gel synthesis of rare-earth disilicates, and X-Ray Diffraction (XRD), Nuclear Magnetic Resonance (NMR) and Scanning Electron Microscope (SEM) techniques.

SCIENTIFIC INTERESTS	Analytical Chemistry, Radiochemistry, Nanotechnology, Environmental Science, Materials Science
AUTHOR ID (Scopus)	35217781500
RESEARCHER ID (Web of Science)	I-7533-2013
ORCID ID	0000-0002-8219-0148
SCIENTIFIC PRODUCTIVITY	49 articles (excluding presentations at international and national conferences, congresses, meetings, and workshops)
H-INDEX	11 (Scopus), 9 (Web of Science)

REVIEWING/EDITING ACTIVITIES

1) Since 07/2019 – executive editor (member of the Editorial Board) for Advanced Materials & Technologies (AM&T, edited by Tambov State Technical University, Tambov, Russia)

2) Since 01/2019 – editor/reviewer for IOP Conference Series and AIP Conference Proceedings (Conference Issues);

3) Since 09/2016 – reviewer for Materials Research Express (MRX);

4) Since 08/2016 – reviewer for Journal of Nanoparticle Research (NANO);

5) Since 03/2014 – reviewer for Pakistan Journal of Scientific and Industrial Research (PJSIR).

MISCELLANEOUS ACTIVITIES

11/2015, 11/2017, 11/2019 **1st, 2nd and 3rd International Scientific-Practical Conferences "Graphene and Related Structures: Synthesis, Production, and Application", Tambov, Russia.**

Scientific Secretary of the Organizing Committee.

INSTRUMENTAL TECHNIQUES	ICP-MS, ICP-OES, AAS, HPLC, XRD, SEM, NMR.
COMPUTER KNOWLEDGE	Word, Excel, PowerPoint; LaTeX, BibTeX; MatLab, Origin; Illustratotor; Acrobat; Windows; Internet, Outlook.
SPOKEN LANGUAGES	Russian (mother tongue); English (fluent); Spanish (fluent); Portuguese (intermediate); French (intermediate); Ukrainian (intermediate); Catalan (basic).

POSSIBLE JOB TITLE Research Associate, Postdoc, or similar.

FIELD OF EXPERTISE AND RESEARCH INTERESTS

The field of my expertise and research interests refers to analytical chemistry, radiochemistry, materials science, nanotechnology and environmental science. During my career as a researcher, I have been involved in various projects (as a performer) dedicated to sorption and desorption of organic compounds (dyes) heavy metals (Cd, Pb, Zn, Co, Ni, etc.) and non-radioactive analogs of radionuclides – lanthanides (La, Lu, etc) from aqueous media using various types of sorbents (smectite clays, carbon nanotubes- and graphene-based nanomaterials) for different environmental purposes, including water treatment, soil remediation and constructing engineered barriers in deep geological repositories of high-activity radioactive waste. The sorption and desorption processes are studied in a batch mode under various conditions (initial concentration, process temperature, pH). Experimental data are analyzed based on the empirical single Langmuir and Freundlich, Dubinin-Radushkevich and Temkin models, as well as the double Langmuir-Freundlich model in its original and modified (developed by us) forms; the latter considers the contribution of sorption sites with different binding energies (higher and lower) available on the sorbent surface to the sorption process: inner-sphere higher-affinity (specific) sites refer to surface complexation and chemical interactions, whereas outer-sphere lower-affinity (non-specific) sites promoting ionic exchange and electrostatic interactions. Thus, the sorption data analysis using the modified dual-site Langmuir-Freundlich equation makes it possible to estimate the heavy-metal and lanthanide sorption and desorption for each studied sorbent and to select the better material for a specific environmental case. Furthermore, the analysis based on titration and pH-stat tests allow assessing the effect of the aqueous medium pH on the leaching ability of the heavy metals. The developed sorption-desorption procedure may be employed in treating industrial metal-contaminated wastewater, soils and sediments. Besides, it may be used to remove some organic compounds such as dyes, ethylene glycol from different aqueous media.

Regarding the nanotechnology, I am working on using nanomodified materials as sorbents for the above-mentioned purposes. The scope of such sorbents cover carbon nanotubes, graphene nanoplatelets and materials on the basis thereof (e.g., polyamine cumulene/graphene, and polyhydroquinone/graphene hybrid composites developed by us), which have shown better sorption and desorption properties (e.g. sorption capacity toward heavy metal ions) compared with conventional sorbents. Thus, they may be potentially used for treating wastewater, remediating soils and sediments, as well as engineered barriers to retain radioactive waste from penetration into the environment.

SCOPUS/WoS-INDEXED PUBLICATIONS (Q1, Q2)

1) Ali, I.; Al Arsh, B.; Mbianda, X.Y.; Burakov, A.; Galunin, E.; Burakova, I.; Mkrtchyan, E.; Tkachev, A.; Grachev, V. Graphene based adsorbents for remediation of noxious pollutants from wastewater, *Environment International* 127 (2019) 160-180, DOI: 10.1016/j.envint.2019.03.029. (SCOPUS/WoS)

2) Ali, I.; Al Arsh, B.; Kucherova, A., Memetov, N.; Pasko, T.; Ovchinnikov, K.; Pershin, V.; Kuznetsov, D.; Galunin, E.; Grachev, V.; Tkachev, A. Advances in carbon nanomaterials as lubricants modifiers, *Journal of Molecular Liquids* 279 **(2019)** 251-266, DOI: 10.1016/j.molliq.2019.01.113. (SCOPUS/WoS)

3) Ali, I.; Alharbi, O.M.L.; Tkachev, A.; Galunin, E.; Burakov, A.; Grachev, V. Water treatment by new generation graphene materials: Hope for bright future, *Environmental Science and Pollution Research* 25 **(2018)** 7315-7329, DOI: 10.1007/s11356-018-1315-9. (SCOPUS/WoS)

4) Burakova, E.A.; Ali, I.; Dyachkova, T.P.; Rukhov, A.V.; Tugolukov, E.N.; Galunin, E.V.; Tkachev, A.G.; Basheer, A.A. Novel and economic method of carbon nanotubes synthesis on a nickel magnesium oxide catalyst using microwave radiation, *Journal of Molecular Liquids* 253 **(2018)** 340-346, DOI: 10.1016/j.molliq.2018.01.062. (SCOPUS/WoS)

5) Burakov, A.E.; Galunin, E.V.; Burakova, I.V.; Kucherova, A.E.; Agarwal, S.; Tkachev, A.G.; Gupta, V.K. Adsorption of heavy metals on conventional and nanostructured materials for wastewater treatment purposes: A review, *Ecotoxicology and Environmental Safety* 148 **(2018)** 702-712, DOI: 10.1016/j.ecoenv.2017.11.034. (SCOPUS/WoS)

6) Santos, M.J.; Tarley, C.R.T.; Cunha, I.; Zapelini, I.; Galunin, E.; Bleinroth, D.; Vieira, I.; Abrão, T. Leachability of major and minor elements from soils and sediments of an abandoned coal mining area in Southern Brazil, *Environmental Monitoring and Assessment* 187(3) **(2015)** 83-95, DOI: 10.1007/s10661-015-4271-6. (SCOPUS/WoS)

7) Germiniano, T.O.; Corazza, M.Z.; Segatelli, M.G.; Ribeiro, E.S.; Santos, M.J.; Galunin, E.; Tarley, C.R.T. Synthesis of novel copper ion-selective material based on hierarchically imprinted cross-linked poly(acrylamide-co-ethylene glycol dimethacrylate), *Reactive & Functional Polymers* 82 **(2014)** 72-80, DOI: 10.1016/j.reactfunctpolym.2014.05.012. (SCOPUS/WoS)

8) Galunin, E.; Ferreti, J.; Zapelini, I.; Vieira, I.; Tarley, C.R.T.; Abrão, T.; Santos, M.J. Cadmium mobility in sediments and soils from a coal mining area on Tibagi River watershed: Environmental risk assessment, *Journal of Hazardous Materials* 265 **(2014)** 280-287, DOI: 10.1016/j.jhazmat.2013.11.010. (SCOPUS/WoS)

9) De Oliveira, F.M.; Somera, B.F.; Ribeiro, E.S.; Segatelli, M.G.; Santos, M.J.; Galunin, E.; Tarley, C.R.T. Kinetic and isotherm studies of Ni^{2+} adsorption on poly(methacrylic acid) synthesized through a hierarchical double-imprinting method using a Ni^{2+} ion and cationic surfactant as templates, *Industrial and Engineering Chemistry Research* 52(25) **(2013)** 8550-8557, DOI: 10.1021/ie4003624. (SCOPUS/WoS)

10) Somera, B.F.; Corazza, M.Z.; Santos, M.J.; Segatelli, M.G.; Galunin, E.; Tarley, C.R.T. 3-mercaptopropyltrimethoxysilane-modified multi-walled carbon nanotubes as a new functional adsorbent for flow injection extraction of Pb(II) from water and sediment samples, *Water, Air and Soil Pollution* 223(9) **(2012)** 6069-6081, DOI: 10.1007/s11270-012-1341-z. (SCOPUS/WoS)

11) Galunin, E.; Alba, M.D., Santos, M.J.; Vidal, M. Effects of the presence of Fe(0) on the sorption of lanthanum and lutetium mixtures in smectites, *Applied Clay Science* 65-66 **(2012)** 162-172, DOI: 10.1016/j.clay.2012.06.011. (SCOPUS/WoS)

12) Galunin, E.; Alba, M.D.; Santos, M.J.; Abrão, T; Vidal, M. Examination of competitive lanthanide sorption onto smectites and its significance in the management of radioactive waste, *Journal of Hazardous Materials* 186(2-3) **(2011)** 1930-1941, DOI: 10.1016/j.jhazmat.2010.12.098. (SCOPUS/WoS)

13) Galunin, E.; Vidal, M.; Alba, M.D. The effect of polymorphic structure on the structural and chemical stability of yttrium disilicates, *American Mineralogist* 96(10) **(2011)** 1512-1520, DOI: 10.2138/am.2011.3659. (SCOPUS/WoS)

14) Galunin, E.; Alba, M.D.; Vidal, M. Stability of rare-earth disilicates: Ionic radius effect, *Journal of the American Ceramic Society* 94(5) **(2011)** 1568-1574, DOI: 10.1111/j.1551-2916.2010.04272.x. (SCOPUS/WoS)

15) Galunin, E.; Alba, M.D.; Santos, M.J.; Abrão, T; Vidal, M. Lanthanide sorption on smectitic clays in presence of cement leachates, *Geochimica et Cosmochimica Acta* 74(3) **(2010)** 862-875, DOI: 10.1016/j.gca.2009.11.003. (SCOPUS/WoS)

16) Galunin, E.; Alba, M.D., Avilés, M.A.; Santos, M.J.; Vidal, M. Reversibility of La and Lu sorption onto smectites: Implications for the design of engineered barriers in deep geological repositories, *Journal of Hazardous Materials* 172(2-3) **(2009)** 1198-1205, DOI: 10.1016/j.jhazmat.2009.07.124. (SCOPUS/WoS)

OTHER PUBLICATIONS

1) Gerasimova, A.; Smolsky, G.; Melezhik, A.; Galunin, E.; Memetov, N.; Tkachev, A. Synthesis, study and applications of graphene materials, *Proceedings of the 4th World Congress on Recent Advances in Nanotechnology (RAN'19), Rome, Italy – April 2019* **(2019)** ICNNFC103 (1-2), DOI: 10.11159/icnnfc19.103. (SCOPUS)

2) Burakov, A.; Galunin, E.; Burakova, I.; Melezhik, A.; Mkrtchyan, E.; Tkachev, A. A cumulene/CNTs nanocomposite for removal of organic dyes from aquatic media, *Proceedings of the 4th World Congress on Recent Advances in Nanotechnology (RAN'19, Rome, Italy – April 2019* **(2019)** ICNNFC109 (1-2), DOI: 10.11159/icnnfc19.109. (SCOPUS)

3) Tkachev, A.; Zhumagalieva, G.; Al-Hilo, Z.; Memetov, N.; Galunin, E.; Pershin, V. Modification of frost-resistant plastic lubricants using few- and multi-layered graphene, *Proceedings of the 4th World Congress on Recent Advances in nanotechnology (RAN'19), Rome, Italy – April 2019* **(2019)** ICNNFC105 (1-2), DOI: 10.11159/icnnfc19.105. (SCOPUS)

4) Burakov, A.E.; Burakova, I.V.; Galunin, E.V.; Kucherova, A.E. New carbon nanomaterials for water purification from heavy metals, In: *Handbook of Ecomaterials*, Torres Martinez, L.M.; Kharissova, O.V.; Kharisov, B.I. (Eds.), Vol. 1 **(2019)**, pp. 393-412, DOI: 10.1007/978-3-319-68255-6_166 (10.1007/978-3-319-48281-1_166-1). (SCOPUS)

5) Babkin, A.V.; Melezhik, A.V.; Kurnosov, D.A.; Mkrtchyan, E.S.; Burakova, I.V.; Burakov, A.E.; Galunin, E.V. Kinetics of the adsorption of synthetic dyes on a polyhydroquinone/graphene carbon nanocomposite, *IOP Conference Series: Journal of Physics: Conference Series* 1124 **(2018)** 081030 (1-6), DOI: 10.1088/1742-6596/1124/8/081030. (SCOPUS/WoS)

6) Yagubov, V.S.; Memetov, N.R.; Nagdaev, V.K.; Galunin, E.V.; Tkachev, A. Application of carbon nanomaterials as markers in the composition of motor oils, *AIP Conference Proceedings* 2051 **(2018)** 020327 (1-4), DOI: 10.1063/1.5083570. (SCOPUS/WoS)

7) Galunin, E.; Burakova, I.; Neskoromnaya, E.; Babkin, A.; Melezhik, A.; Burakov, A.; Tkachev, A. Adsorption of heavy metals from aqueous media on graphene-based nanomaterials, *AIP Conference Proceedings* 2041 **(2018)** 020007 (1-4), DOI: 10.1063/1.5079338. (SCOPUS/WoS)

8) Pershin, V.; Ovchinnikov, K.; Al-Hilo, Z.; Memetov, N.; Tkachev, A.; Galunin, E. A graphene masterbatch for modification of frost-resistant plastic lubricants, *AIP Conference Proceedings* 2041 **(2018)** 020016 (1-4), DOI: 10.1063/1.5079347. (SCOPUS/WoS)

9) Zhumagalieva, G.; Pershin, V.; Tkachev, A.; Vorobiev, A.; Pasko, A.; Galunin, E. Using a rod drum mill for graphene masterbatch production, *AIP Conference Proceedings* 2041 **(2018)** 020010 (1-4), DOI: 10.1063/1.5079341. (SCOPUS/WoS)

10) Al-Sayyad, T.; Pershin, V.; Vorobiev, A.; Galunin, E. Two-step feeding technology for graphene oxide manufacturing, *AIP Conference Proceedings* 2041 **(2018)** 020001 (1-4), DOI: 10.1063/1.5079332. (SCOPUS/WoS)

11) Dyachkova, T.; Burakova, E.; Tarov, D.; Khan, Yu.; Chapaksov, N.; Galunin, E.; Alekseev, S.; Tkachev, A. Modification of oil compositions with carbon nanomaterials, *AIP Conference Proceedings* 2041 **(2018)** 020008 (1-4), DOI: 10.1063/1.5079339. (SCOPUS/WoS)

12) Burakova, E.; Melezhik, A.; Dyachkova, T.; Galunin, E.; Tkachev, A. Development of nanocomposites on the basis of graphene nanoplatelets, *AIP Conference Proceedings* 2041 **(2018)** 020004 (1-4), DOI: 10.1063/1.5079335. (SCOPUS/WoS)

13) Blokhin, A.; Sukhorukov, A.; Zaytsev, I.; Tkachev, A.; Burakov, A.; Galunin, E. The effect of fluorinated graphene nanoplatelets on the physical and mechanical properties in a polymer material, *AIP Conference Proceedings* 2041 **(2018)** 020002 (1-4), DOI: 10.1063/1.5079333. (SCOPUS/WoS)

14) Ghaedi, A.M.; Baneshi, M.M.; Vafaei, A.; Shirazi Nejad, A.R.; Tyagi, I.; Kumar, N.; Galunin, E.; Tkachev, A.G.; Agarwal, Sh.; Gupta, V.K. Comparison of multiple linear regression and group method of data handling models for predicting sunset yellow dye removal onto activated carbon from oak tree wood, *Environmental Technology & Innovation* 11 **(2018)** 262-275, DOI: 10.1016/j.eti.2018.06.006. (SCOPUS/WoS)

15) Kucherova, A.E.; Burakova, I.V.; Burakov, A.E.; Galunin, E.V.; Babkin, A.V.; Neskoromnaya, E.A. An equilibrium study of the liquid-phase sorption of Lead (II) ions on nanoporous carbon materials, *Nanosystems: Physics, Chemistry, Mathematics* 9(1) **(2018)** 114-116, DOI: 10.17586/2220-8054-2018-9-1-114-116. (WoS)

16) Blokhin, A.N.; Dyachkova, T.P.; Sukhorukov, A.K.; Kobzev, D.E.; Galunin, E.V.; Maksimkin, A.V.; Mostovoy, A.S.; Kharitonov, A.P. Composite materials using fluorinated graphene nanoplatelets, *Nanosystems: Physics, Chemistry, Mathematics* 9(1) **(2018)** 102-105, DOI: 10.17586/2220-8054-2018-9-1-102-105. (WoS)

17) Rukhov, A.; Dyachkova, T.; Anosova, I.; Tugolukov, E.; Burakova, E.; Galunin, E. Carbon nanotubes modification with polyaniline: Revealing mechanism by mathematical modeling method, *AIP Conference Proceedings* 1899 **(2017)** 060022 (1-7), DOI: 10.1063/1.5009893. (SCOPUS/WoS)

18) Schegolkov, A.V.; Shchegolkov, A.V.; Galunin, E.V.; Popova, A.A.; Krivosheev, R.M.; Memetov, N.R.; Tkachev, A.G. Graphene-modified heat-accumulating materials and aspects of their application in thermotherapy and biotechnologies, *Nano Hybrids and Composites* 13 **(2017)** 21-25, DOI: 10.4028/www.scientific.net/NHC.13.21. (WoS)

19) Tolchkov , Yu.N.; Panina, T.I.; Mikhaleva, Z.A.; Galunin, E.V.; Memetov, N.R.; Tllachev, A.G. The effect of surfactantson the distribution of carbon nanomaterials in aqueous dispersions when nanomodifying construction composites, *Khimicheskaya phizika i mezoskopiya (Chemical Physics and Mesoscopy)* 19(2) **(2017)** 292-298 (in Russian).

20) Dyachkova, T.P.; Anosova, I.V.; Galunin, E.V.; Orlova, N.V.; Tkachev, A.G. Synthesis of composites based on polyaniline-modified dispersed nanocarbon supports and prospects of their application as sorbents, *Nano Hybrids and Composites* 13 **(2017)** 135-141, DOI: 10.4028/www.scientific.net/NHC.13.135. (WoS)

21) Romantsova, I.; Galunin, E.; Burakov, A.; Kucherova, A.; Memetov, N. Adsorption of nickel ions on nanomodified materials: An isotherm study, *International Multidisciplinary GeoConference Surveying Geology and Mining Ecology Management – SGEM, SGEM2016 Conference Proceedings* Book 6, Vol. 1 **(2016)** 33-40, DOI: 10.5593/SGEM2016/B61/S24.005. (WoS)

22) Burakov, A.; Kucherova, A.; Romantsova, I.; Galunin, E.; Tkachev, A. A kinetic study on the adsorption of nickel ions (Ni^{2+}) on CNTs-modified NaX zeolite, *International Multidisciplinary*

GeoConference Surveying Geology and Mining Ecology Management – SGEM, SGEM2016 Conference Proceedings Book 6, Vol. 1 **(2016)** 3-10, DOI: 10.5593/SGEM2016/B61/S24.001. (WoS)

23) Shchegolkov, A.; Galunin, E.; Shchegolkov, A.; Memetov, N.; Tkachev, A. Prospects of using graphene-like nanostructures in supercapacitors, *International Multidisciplinary GeoConference Surveying Geology and Mining Ecology Management – SGEM, SGEM2016 Conference Proceedings* Book 6, Vol. 1 **(2016)** 289-296, DOI: 10.5593/SGEM2016/B61/S24.038. (WoS)

24) Anosova, I.; Dyachkova,T.; Rukhov, A.; Galunin, E.; Tkachev, A. A study on modification of graphene nanoplatelets with polyaniline, *AIP Conference Proceedings* 1772 **(2016)** 030001 (1-7), DOI: 10.1063/1.4964539. (SCOPUS/WoS)

25) Panina, T.I.; Tolchkov, J.N.; Tkachev, A.G.; Mikhaleva, Z.A.; Galunin, E.V.; Memetov, N.R.; Popov, A.I. Efficiency of application of complex nanomodifying additives based on zeolites in building materials, *Nanotechnologies in Construction* 8(5) **(2016)** 116-132, DOI: dx.doi.org/10.15828/2075-8545-2016-8-5-116-132. (WoS)

26) Burakova, E.A.; Galunin, E.V.; Rukhov, A.V.; Memetov, N.R.; Tkachev, A.G. Effect of ultrasound on a mixed oxide-based catalyst for synthesis of nanostructured carbon materials, *Research on Chemical Intermediates* 42(9) **(2016)** 7045-7055, DOI: 10.1007/s11164-016-2516-9. (SCOPUS/WoS)

27) Shchegolkov, A.; Chayka, M.; Galunin, E.; Shchegolkov, A.; Memetov, N.; Tkachev, A. Studies on highly porous graphene-like structures as electrode material for supercapacitors, *Materials Science Forum* 845 **(2016)** 259-262, DOI: 10.4028/www.scientific.net/MSF.845.259. (SCOPUS)

28) Burakova, E.; Melezhyk, A.; Gerasimova, A.; Galunin, E.; Memetov, N.; Tkachev, A. A new way of developing nanocomposites based on carbon nanotubes and graphene nanoplatelets, *Nanopages* 11 **(2016)** 1-11, DOI: 10.1556/566.2016.0001.

29) Shchegolkov, A.V.; Galunin, E.V.; Shchegolkov, A.V. (Jr.); Zyablova, A.M.; Memetov, N.R.; Korotkov, S.V. The study of operating parameters of a graphene electrode-based supercapacitor by the voltmeter-ammeter method, *Advanced Materials & Technologies* 3 **(2016)** 53-60, DOI: 10.17277/amt.2016.03.pp.053-060.

30) Tugolukov, E.N.; Galunin, E.V.; Tarov, A.V.; Memetov, N.R.; Tkachev, A.G. Mathematical modeling of ammonium persulfate granules dissolution in sulfuric acid, *Advanced Materials & Technologies* 2 **(2016)** 48-52, DOI: 10.17277/amt.2016.02.pp.048-052.

31) Melezhyk, A.; Galunin, E.; Memetov, N. Obtaining graphene nanoplatelets from various graphite intercalation compounds, *IOP Conference Series: Materials Science and Engineering* 98(1) (**2015**) 012041 (1-9), DOI: 10.1088/1757-899X/98/1/012041. (SCOPUS/WoS)

32) Shchegolkov, A.V.; Shchegolkov, A.V. (Jr.); Galunin, E.V.; Bezverkhniy, A.I. Prospects for the use of thermal insulation nanocomposite materials, *Aktualnye napravleniya nauchykh issledovaniy XXI veka: teoriya i praktika (Actual Directions of Scientific Research of the XXI-st Century: Theory and Practice)* 2(4-3) **(2014)** 139-142, DOI: 10.12737/6124 (in Russian).

33) Abramov, A.; Galunin, E.; Iofa, B. Mutual effects of oxo anions in extraction with tetraoctylammonium salts in polar solvents, *Mendeleev Communications* 12(6) **(2002)** 240-241, DOI: 10.1070/MC2002v012n06ABEH001671. (SCOPUS/WoS)

PARTICIPATION IN SCIENTIFIC EVENTS

1) **3rd International Scientific-Practical Conference "Graphene and Related Structures: Synthesis, Production, and Application" (GRS-2019), 11/2019, Tambov, Russia.**

- Dorozhkin, K.V.; Tkachev, A.G.; Kuleshov, G.E.; Galunin, E.V.; Shomatilo, T.N.; Suslyaev, V.I. Electrophysical parameters of a composit on the basis of ABS plastic and the carbon nanomaterial "Taunit" for 3D-printing in the terahertz range.
- Dyachkova, T.P.; Tarov, D.V.; Blokhin, A.N.; Galunin, E.V.; Rosenblum, L.V.; Kobzev, D.E. Functionalization of carbon nanotubes for use in nonpolar matrix composites.
- Kurnosov, D.A.; Babkin, A.V.; Burakov, A.E.; Neskoromnaya, E.A.; Burakova, I.V.; Galunin, E.V. Removal of Cu^{2+}, Zn^{2+} and Pb^{2+} ions using a graphene-containing nanocomposite: A kinetic study.
- Babkin, A.V.; Burakova, I.V.; Burakov, A.E.; Kurnosov, D.A.; Tkachev, A.G.; Galunin, E.V. Adsorption of Cu^{2+}, Zn^{2+} and Pb^{2+} ions on a novel graphene-containing nanocomposite: An isotherm study.

2) **4th International Conference on Nanomaterials, Nanodevices, Fabrication and Characterization (ICNNFC'2019), 04/2019, Rome, Italy.**

- Gerasimova, A.; Smolsky, G..; Melezhik, A.; Galunin, E.; Memetov, N.; Tkachev, A. Synthesis, study and applications of graphene materials.
- Burakov, A.; Galunin, E.; Burakova, I.; Melezhik, A.; Mkrtchyan, E.; Tkachev, A. A cumulene/CNTs nanocomposite for removal of organic dyes from aquatic media.
- Tkachev, A.; Zhumagalieva, G.; Al-Hilo, Z.; Memetov, N.; Galunin, E.; Pershin, V. Modification of frost-resistant plastic lubricants using few- and multi-layered graphene.

3) **1st International Conference "2D Systems of the Strong Correlated Electrons: From Fundamental Research to Practical Application", 06/2018, Yakutsk, Republic of Sakha (Yakutia), Russia.**

- Burakov, A.E.; Babkin, A.V.; Galunin, E.V.; Neskoromnaya, E.A.; Melezhik, A.V.; Burakova, I.V.; Tkachev, A.G. Adsorption of heavy metal ions from aqueous media on graphene-based nanomaterials.
- Al Sayad, T.H.K.; Pershin, V.F.; Vorobiev, A.;M.; Galunin, E.V. Two-step feeding technology for graphene oxide manufacturing.
- Zhumagalieva, G.B.; Pershin, V.F.; Tkachev, A.G.; Galunin, E.V.; Pasko, A.A. Using a rod-drum mill for graphene masterbatch production.
- Pershin, V.F.; Ovchinnikov, K.A.; Al-Hilo, Z.A.A.; Memetov, N.R.; Tkachev, A.G.; Galunin, E. A graphene masterbatch for modification of frost-resistant plastic lubricants.
- Burakova, E.A.; Melezhik, A.V.; Dyachkova, T.P.; Galunin, E.V.; Memetov, N.R.; Tkachev, A.G. Development of nanocomposites on the basis of graphene nanoplatelets.
- Dyachkova, T.P.; Burakova, E.A.; Tarov, D.V.; Khan, Yu.A.; Chapaksov, N.A; Galunin, E.V.; Tkachev, A.G. Modification of oil compositions with carbon nanomaterials.

4) **2nd International Scientific-Practical Conference "Graphene and Related Structures: Synthesis, Production, and Application", 11/2017, Tambov, Russia.**

- Galunin, E.; Kurnosov, D.; Burakova, I.; Burakov, A.; Gerasimova, A.; Kucherova, A.; Krasnyansky, M. Nanocomposite $CoFe_2O_4$/graphene for Cu(II) adsorption.
- Anosova, I.; Rukhov, A.; Dyachkova, T.; Galunin, E. Physico-chemical aspects of the process of modification of nanostructures with polyaniline.
- Khan, Yu.; Chapaksov, N.; Dyachkova, T.; Galunin, E. Research of structural characteristics of functionalized carbon nanotubes.
- Chapaksov, N.; Khan, Yu.; Dyachkova, T.; Galunin, E. Perspective methods of gas-phase oxidation of multiwalled carbon nanotubes.

3) 13th International Conference "Advanced Carbon Nanostructures" (ACNS'2017), 07/2017, St. Petersburg, Russia.

- Kucherova, A.; Burakova, I.; Burakov, A.; Galunin, E.; Babkin, A.; Neskoromnaya, E. An equilibrium study of the liquid-phase sorption of Lead (II) ions on nanoporous carbon materials.
- Blokhin, A.; Dyachkova, T.; Sukhorukov, A.; Kobzev, D.; Galunin, E.; Popov, A.; Maksimkin, A., Mostovoy, A.; Kharitonov, A. Composite materials using fluorinated graphene nanoplatelets.

4) 11th International Conference "Semiconductor Micro- and Nanoelectronics" (ICSMN'2017), 06/2017, Yerevan, Armenia.

- Al-Saadi, D.; Pershin, V.; Galunin, E.; Shmavonyan, G.; Tkachev, A.; Ostrikov, V. Modification of plastic lubricants using few-layered graphene.
- Burakova, E.; Besperstova, G.; Rukhov, A.; Dyachkova, T.; Bakunin, E.; Galunin, E.; Shmavonyan, G.; Tkachev, A. Peculiarities of obtaining a catalyst for the synthesis of nanostructured carbon materials via thermal decomposition.

5) 6th International Conference "From Nanostructures, Nanomaterials and Nanotechnologies to Nanoindustry" (NanoIzh'2017), 04/2017, Izhevsk, Udmurt Republic, Russia.

- Mikhaleva, Z.; Tolchkov, Yu.; Panina, T.; Galunin, E.; Memetov, N.; Tkachev, A. The surfactant effect on the distribution of carbon nanotubes in aqueous dispersions during preparation of a nanomodifying additive to construction composite materials.

6) 16th International Multidisciplinary Scientific GeoConference (SGEM'2016), 06-07/2016, Albena, Bulgaria.

- Romantsova, I.; Galunin, E.; Burakov, A.; Kucherova, A.; Memetov, N. Adsorption of nickel ions on nanomodified materials: An isotherm study.
- Burakov, A.; Kucherova, A.; Romantsova, I.; Galunin, E.; Tkachev, A. A kinetic study on the adsorption of nickel ions (Ni^{2+}) on CNTs-modified NaX zeolite.
- Shchegolkov, A.; Galunin, E.; Shchegolkov, A.; Memetov, N.; Tkachev, A. Prospects of using graphene-like nanostructures in supercapacitors.

7) 7th International Conference "Nanoparticles, Nanostructured Coatings and Microcontainers: Technology, Properties, Applications" (NANOWORKSHOP'2016), 05/2016, Tomsk, Russia.

- Melezhyk, A.; Galunin, E.; Memetov, N.; Tkachev, A. The chemistry and technology for large-scale synthesis of graphene nanoplatelets. (oral presentation - устная презентация на английском языке)
- Rukhov, A.; Memetov, N.; Burakova, E; Galunin, E.; Tugolukov, E.; Tkachev, A. Advanced aspects of the production of catalytic systems used for growing carbon nanotubes by thermal decomposition.

8) 1st International Scientific-Practical Conference "Graphene and Related Structures: Synthesis, Production, and Application", 11/2015, Tambov, Russia.

- Dyachkova, T.; Galunin, E. Advanced methods of functionalization and modification of carbon nanomaterials.
- Burakova, E.; Besperstova, G.; Uglova, E.; Galunin, E.; Rukhov, A. The promoter effect on catalysts for the synthesis of carbon nanotubes.
- Abramova, V.; Dyachkova, T.; Galunin, E. Studying the drying of an aqueous paste of carboxylated carbon nanotubes.

9) 2nd World Congress on New Technologies (NewTech´15) - 6th International Conference on Nanotechnology: Fundamentals and Applications (ICNFA´15), 07/15, Barcelona, Spain.

- Melezhyk, A.; Galunin, E.; Memetov, N.; Tkachev, A. Graphite intercalation compounds as precursors of graphene nanoplatelets.
- Rukhov, A.; Memetov, N.; Tugolukov, E.; Aladinskiy, A.; Galunin, E.; Tkachev, A. Macrokinetics of carbon nanotubes synthesis by the CVD method.

10) 36th Annual Meeting of the Brazilian Chemical Society, 05/2013, Águas de Lindóia, São Paulo State, Brazil.

- Cunha, I.; Galunin E.; Zapelini, I.; Ferreti, J.; Vieira, I.; Santos, M.J. Determination of the neutralizing capacity of soils and sediments of the former mining area at the Tibagí River (Paraná State, Brazil).

11) 6th National Meeting on Environmental Chemistry (VI ENQAmb), 03/2012, Londrina, Paraná State, Brazil.

- Galunin E.; Ferrari, A.; Ferreti, J.; Zapelini, I.; Vieira, I.; Abrão, T.; Santos, M.J. Cadmium sorption to soils and sediments of the mining area at the Tibagí River – Paraná State, Brazil.
- Santos, M.J.; Ferrari, A.; Zapelini, I.; Ferreti, J.; Galunin, E.; Abrão, T. Environmental risk assessment: Cd mobilization in a coal mining area – the Tibagí River watershed - Paraná State, Brazil.

12) 4th International Meeting "Clays in Natural and Engineered Barriers for Radioactive Waste Confinement", 03/2010, Nantes, France.

- Galunin E.; Alba, MD.; Vidal, M. Chemical interaction of radioactive waste with clay engineered barriers: Stability of the resulting immobilizer phase.

13) 5th Meeting of Young Researchers from Catalonia Region [Cinquena Trobada de Joves Investigadors dels Països Catalans], 01/2008, Vic, Spain.

- Galunin, E. and Vidal, M. Sorption-desorption of analogues for radionuclides in clays suitable for the construction of engineered barriers.

14) 3rd International Meeting "Clays in Natural and Engineered Barriers for Radioactive Waste Confinement", 09/2007, Lille, France.

- Galunin E.; Chaín, P.; Alba, M.D.; Vidal, M. Sorption-desorption of radionuclides and analogues in clays suitable for barriers.

15) 10th International Meeting "Separation of Ionic Solutes" (SIS´03), 09/2003, Pódbanske, High Tatras, Slovakia.

- Galunin, E.; Abramov, A.; Iofa, B. Extraction of ammonium perrhenate by quaternary ammonium, stibonium, phosphonium and arsonium salts in various solvents.

16) 3rd Russian-Japanese Seminar on Technetium, 06/2002, Dubná, Moscow Region, Russia.

- Galunin, E; Abramov, A.; Fedoseev, V. Extraction of oxo anions from alkaline solutions with quaternary ammonium base salts.