Russian Academy of Sciences, Institute of Silicate Chemistry
Laboratory of Research of Nanostructures
Adm. Makarova emb., 2
199034, St.-Petersburg
Russia

arsentev@isc.nw.ru
Phone: 8(812)328-02-22
Mobile: +7(950)0486050
Fax: -
Website: http://www.iscras.ru

Maxim Arsent'ev, PhD in Chemistry

Education

Sep 2001 – Feb 2007 **Petersburg State Electrotechnical University**
Engineer, Electronics and microelectronics
Saint Petersburg, Russia

Thesis

Research Experience

Jan 2012 – Jun 2019 **Senior Researcher**
Russian Academy of Sciences, Institute of Silicate Chemistry
Saint Petersburg, St.-Petersburg, Russia

Sep 2007 – present **Researcher**
Russian Academy of Sciences, Institute of Silicate Chemistry
Saint Petersburg, St.-Petersburg, Russia

Statistics

Publications 52
Citations 235
h-index 9

Awards & Grants

Jan 2018 Grant: The Program of the Presidium of the Russian Academy of Sciences No. 32 "Nanostructures: physics, chemistry, biology, basis of technologies", subprogram II "Nanomaterials"

Oct 2016 Award: The best oral presentation at 2016 International Conference on Functional Materials and Metallurgy ICFMM 2016, held in Shanghai, China, October 21-23, 2016

Feb 2015 Grant: Grant from the President of the Russian Federation for the state support

of young Russian scientists - PhD number MK-6004.2015.3.

Jul 2012 Grant: RFBR research project No. 12-03-33012 мол_а_вед

Jun 2012 Grant: RFBR research project No. 12-03-31368 мол_а

Jun 2012 Grant: RFBR research project No. 12-03-31349 мол_а

Jan 2010 Grant: Grant from the President of the Russian Federation for the state support of young Russian scientists - PhD number MK-64457.2010.3.

Skills & Activities

Skills Materials Chemistry, Ab Initio, Density Functional Theory, Condensed Matter Theory

Languages English

Journal Publications

Sergey Volkov, Dmitri Charkin, Rimma Bubnova, Alexey Povolotskiy, Maxim Arsent'ev, Maria Krzhizhanovskay, Sergey Stefanovich, Valery Ugolkov, Ludmila Kurilenko: *The first silver bismuth borate, $AgBi_2B_5O_{11}$ The first silver bismuth borate, $AgBi_2B_5O_{11}$ The first silver bismuth borate, $AgBi_2B_5O_{11}$ The first silver bismuth borate, $AgBi_2B_5O_{11}$*. Acta crystallographica. Section C 07/2019; 75(7)., DOI:10.1107/S2053229619007605

Maxim Arsentev, Alexander Missyul, Andrey Vitalievich Petrov, Mahmoud Hammouri: *TiS_3 Magnesium Battery Material: Atomic-Scale Study of Maximum Capacity and Structural Behavior*. The Journal of Physical Chemistry C 07/2017; 121(29)., DOI:10.1021/acs.jpcc.7b01575

Maxim Arsentev, Mahmoud Hammouri, Alexander Missyul, Andrey Vitalievich Petrov: *Complex interaction of hydrogen with the monolayer TiS_2 decorated with Li and Li_2O clusters: an ab initio random structure searching approach*. International Journal of Hydrogen Energy, Available online 11 July 2019, https://doi.org/10.1016/j.ijhydene.2019.06.092.

O.A. Shilova, N.N. Gubanova, V.A. Matveev, A.G. Ivanova, M.Y. Arsentiev, K.E. Pugachev, E.M. Ivankova, I.Yu. Kruchinina: *Processes of film-formation and crystallization in catalytically active 'spin-on glass' silica films containing Pt and Pd nanoparticles*. Journal of Molecular Liquids 05/2019;, DOI:10.1016/j.molliq.2019.110996

Maxim Arsentev, Mahmoud Hammouri, Nadezhda Kovalko, Marina Kalinina, Andey Petrov: *First principles study of the electrochemical properties of Mg-substituted Li_2MnSiO_4*. Computational Materials Science 09/2017; 140:181–188., DOI:10.1016/j.commatsci.2017.08.045

M. Yu. Arsentev, A. V. Petrov, A. B. Missyul, M. Hammouri: *Exfoliation, point defects and hydrogen storage properties of monolayer TiS_3: An: ab initio study*. RSC Advances 07/2018; 8(46):26169-26179., DOI:10.1039/C8RA04417A

Patents

Petr Tikhonov, Arsentev M.Yu, Schmiegel A.V., Kalinina M.V., Hlamov I.I.: *Electrochemical robotic complex for forming of nanosized coatings*. Ref. No: RU 2 555 272 /2013.21.Oct., Year: 10/2013

Arsentev M.Yu, Kalinina M.V., Petr Tikhonov, Shilova O.A.: *A method of producing supercapacitor*. Ref. No: RU 2 533 930 /2013.12.Feb., Year: 02/2013

Arsentev M.Yu, Petr Tikhonov, Kalinina M.V.: *Automated system for formation of thin-film coatings nanometer thickness by atomic layer deposition*. Ref. No: RU 134 534 /2013.12.Feb., Year: 02/2013

Conference Proceedings

Maxim Arsentev, Petr Tikhonov, Marina Kalinina, Anastasia Shmigel, Nadezda Kovalko, Tatiana Egorova: *Computational identification of a new form of Li_2MnSiO_4 for battery applications*. 2016 International Conference on Functional Materials and Metallurgy, Shanghai, China; 10/2016

Maxim Arsentev, Marina Kalinina: *Computational identification of a new form of Li_2MnSiO_4 for battery applications*. Joint Meeting of the Four Corners and Texas Sections of the American Physical Society Volume 61, Number 15 Friday–Saturday, October 21–22, 2016; Las Cruces, New Mexico, Las Cruces, New Mexico, USA; 10/2016

Maxim Arsent'ev: *A combined method of crystal-chemical analysis and density functional theory for the prediction of doping species (Ca, Mn) and their concentrations in Li_2NiSiO_4 cathodes with high-rate performances.* IUPAC project workshop: "Topology representations in coordination networks, metal-organic frameworks and other crystalline materials", Samara, Russia; 05/2015

Olga Shilova, Oleg Zagrebelnyy, Alexandra Ivanova, Marina Kalinina, Maxim Arsentjev, Tatjana Panova, Anastasija Kovalenko: *Function of supercapacitor nanoceramic layer*. The 13th Conference of the European Ceramic Society, Lemoge, France; 06/2013

Arsentev M.Yu, Petr Tikhonov, Shilova O.A.: *Synthesis and Physical-Chemical Properties of Electrode and Electrolyte Nanocomposites for Electrochemical Supercapacitors*. X1V International Sol-Gel Conference, Hangzhou, China; 08/2011