

**Name**

Bolshanina Svitlana

**Affiliation**

Assistant Prof. of Theoretical and Applied Chemistry Department

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**Education**

1996-1999: PhD in 05.17.01 - "Technology of Inorganic Materials", Sumy, Ukraine.  
1981-1986: Specialist in "Biology and Chemistry", Sumy State Pedagogical Institute, Sumy, Ukraine.

**Academic degrees**

1999: Ph.D., in 05.17.11 - "The technology of refractory nonmetallic materials", Lviv, Ukraine.  
2003: Associate Professor of Chemistry Sumy National Agrarian University, Sumy, Ukraine.  
2009: Associate Professor of General Chemistry, Sumy State University, Sumy, Ukraine.

**Academic rank**

Assitant Prof.

**Area of Research**

Corrosion protection of metals by using of galvanic coatings. Regeneration of electrolytes from galvanic bath. Synthesis of metal nanoparticles. Study of ions adsorption from aqueous solutions by clay sorbents, adsorption of ions by materials containing organic and inorganic phases, investigation of surface modification and activity.

**Professional experience:**

Since 2012: Acting Head of Department "General Chemistry", faculty of Engineering systems and energy efficient technologies Sumy State University Sumy Ukraine  
2010-2011: Deputy Head of Department, Department of General Chemistry faculty of engineering systems and energy efficient technologies Sumy State University, Sumy, Ukraine  
Since 2009: Associate Professor, Department of "General Chemistry", Sumy State University, Sumy, Ukraine.  
1999-2009: Associate Professor, Department of "Chemistry", Sumy National Agrarian University, Sumy, Ukraine.  
1994-1999: Lecturer, Department of "General educational disciplines", Sumy State University, Sumy, Ukraine.

**Participation in research projects:**

Adsorption of ions from aqueous solutions by clay sorbents (contract № 0110U001768).  
"Improvement of ability of electrolyte dispersion under deposition of zinc coatings on metal wares". (contract № № 51/21-01/11/12;CII).  
"Improvement of the scheme of galvanic industry technological process (contract № 51.21-01.13.CII).  
"The increase of regeneration effectiveness of chrome containing technological solutions" (contract № 51.21-01.15.CII).  
"The development and correction of electrolyte composition with the aim of creation of antifriction coatings" (contract № 51.21-02.15.CII).  
"The study of corrosion resistance of metal constructions under maintenance conditions" (contract № 51.21-03.15.CII).  
"Regeneration of used etching solutions" (contract № 51.21-03.17.CII).  
"Investigation of the surface microstructure of railway tanks corroding under the influence of sulfuric acid production association "Naftan".



### ***Teaching experience:***

Since 2009: General Chemistry, metal corrosion, physical and colloidal chemistry (for the students of speciality engineering); (Ukrainian and Russian languages of teaching).

Other professional activities, such as workshops, seminars and consultations

The member of jury in Ukrainian student olympiad in chemistry (2018, Kiev, National University of Bioresources).

Teaching experience in High Education as a lecturer more than 25 years.

She actively provides modern teaching technologies of into educational process in chemistry teaching. Author of distance learning courses, collections of materials that are placed on Open Course Ware (OCW). Active member of experiment of mixed education. In 2017 year she was awarded for the best collection of materials that were placed on OCW, third award for application of mobile devices in education. An active participant of interuniversity competition "Experiment of approbation of mixed education"

Professional honors, awards and fellowships

2013 Diploma for significant achievements in scientific and scientific-methodical work, the significant impact in preparation of specialists given by Sumy State Administration, Department of education and Science

### ***The most significant publications:***

1. A Yanovska, V. Kuznetsov, A. Stanislavov, E. Husak, M. Pogorielov, V. Starikov, S. Bolshanina, S. Danilchenko Synthesis and characterization of hydroxyapatite-gelatine composite materials for orthopaedic application // Materials Chemistry and Physics 183 (2016) 93-100.
2. S. B. Bolshanina, A. V. Dyachenko, A. S. Opanasuyk, V. M. Kuznetsov Structural properties of magnesium oxide thin films deposited by spray pyrolysis technique / Proceedings of the International Conference Nanomaterials: Applications and properties, Vol. 3 No 1, 01PCSI05 (4pp), 2014.
3. Bolshanina S.B., Opanasyuk A.S., Dobrozhan O.A. Structural and microstructural investigations of ZnO thin films obtained by spray pyrolysis technique/«Праці Одеського політехнічного університету» 2013, №2.
4. Serdiuk V. O. Membrane Processes during the Regeneration of Galvanic Solution / V. O. Serdiuk, V. I. Sklavbinskyi, S. B. Bolshanina, V. D. Ivchenko, M. N. Qasim, K. O. Zaytseva // Journal of Engineering Sciences. – Sumy : Sumy State University, 2018. – Volume 5, Issue 2. – P. F1-F6.
5. S. Bolshanina. Investigation of adsorption isotherm  $\text{Fe}^{2+}$  ions in natural clayminerals Sumy region / M.S. Malevany, V.D. Dudchenko // Ecology Environment and Safety, № 6, 2006. - P. 17 – 21
6. Bolshanina S.B. Analysis of the microstructure of clay minerals in Sumy region / Y.M.Zakharko, V.D. Dudchenko // Visnik of the National University Lviv Polytechnic, №609, 2008. - P.239-242.
7. Bolshanina S.B. Sewage treatment by sorption methods in galvanic productions /Gurets L.L, Balabuha D.S, Milyayeva D.V. //Scientific journal "Environmental Security" № 1/2014 (17) /[http://www.kdu.edu.ua/EKB\\_jurnal/2014\\_1](http://www.kdu.edu.ua/EKB_jurnal/2014_1).
8. Chaichenko N.N. The model of mixed education in teaching of discipline "General chemistry" // Chaichenko N.N., Bolshanina S.B., Dyachenko T.V. The ways of student's extracurricular work improvement. Materials of IX Scientific-methodical conferences / Edited by prof. Protsenko I.Y. – Sumy: Sumy State University, 2018. – C. 31 – 32 (In Ukrainian).
9. Dyachenko T.V., Bolshanina S.B. Applcaton of multimedia technologies in teaching chemistry for foreign students. // Innovations and modern pedagogical technologies in the education system: materials of the VIII international scientific conference on February 20-21, 2018-Prague: Vedecko vydavatelske centrum "Sociosfera-CZ", 2018.-113p.-ISBN 978-80-7526-274-5 (In Russian).
10. Chaichenko N.N., Bolshanina S.B., Dyachenko T.V. Objectizatton of mixed educaton model "Turned class" in chemistry teaching for high education students. // ISSN Online: 2076-8184.

**Patents**

1. Patent. 109623 Ukraine, МПК (2006.01) C02F 1/46. The way of electrolytic regeneration of chrome containing solutions. / Bolshanina S.B., Ableyeva I.Yu., Kirichenko O.M., Altunina L.L. Klimanov O.B., Serdiuk V.O., Sumy State University – № u 2016 02830; given. 21.03.2016; published. 25.08.2016, бюл. № 16. – 4 p
2. Patent 97529 Ukraine, МПК (2015.01) C02F11/00. The way of utilization of drill cuttings with obtaining of concrete / Ableyeva I.Yu., Plyazuk L.D., Bolshanina S.B., Ableyev O.G. Sumy State University. – № u 2014 08486; given. 25.07.2014; published. 25.03.2015, № 6. – 4 p.
3. Patent of Ukraine № 18877A B22 C1/02 The mixture for production of casting molds and rods / Bolshanina S.B., Zvyaginzev G.L., Budenny A.P., Ilycha N.P., Dubovoi B.C. Published 25.12.97., №6.