

# CURRICULUM VITAE



## PERSONAL INFORMATION

Name

SILVIYA SIMEONOVA

E-mail

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## Previous Experience

• Date

**2015 – to present**

• Organization

Sofia University, Faculty of Chemistry and Pharmacy

• Position

Research Associate in department Physical Chemistry

• Date

**2014**

• Organization

Institute of Organic Chemistry with Centre of Phytochemistry – BAS, Bulgaria

• Position

Research Fellow

• Date

**2013**

• Organization

Dental clinic

• Position

Technological Associate

• Dates

**2009 – 2012**

• Organization

Sofia University, Faculty of Chemistry and Pharmacy

• Position

PhD student in Laboratory on Structure and Properties of Polymers

• Dates

**2006 and 2008**

• Organization

Institute of Polymers – BAS, Bulgaria

• Position

Research student and Chemist

## Education

• **2012**

Sofia University, Faculty of Chemistry and Pharmacy – Master's Degree in the Teaching of Chemistry

• **2004 - 2006**

Sofia University, Faculty of Chemistry – Master's Degree of Polymers

• **2000 - 2004**

Sofia University, Faculty of Chemistry – Bachelor's Degree of Chemistry, specialty Analytical Chemistry

• **1995 - 2000**

Technical School of Chemical Industry and Biotechnology, "Prof. Dr. Asen Zlatarov" Sofia; specialty Biotechnology

## International Experience

Germany, Aachen, *Practical Training Course* of the "Marie Curie Actions" Programme: "Tissue engineering, stem cells and biocompatibility testing of biomaterials", August – September, 2009;

Portugal, University of Minho, Department of Polymer Engineering, 2009-2010, 6 months;

Slovenia, University of Maribor, Faculty of Chemistry and Chemical Engineering, and R. Serbia, Faculty of Technology, University of Novi Sad, *International Summer School*, Center of Applied Spectroscopy, July 2010;

Germany, Max Planck Institute for Polymer Research (MPIP) in Mainz, June 2015.

## Major Fields of Scientific Research

Scientific research in area of nanomaterials, biopolymers and metals by Atomic-force microscopy. Scientific study with student and PhD student.

Professional skills in area of application of advanced methods: Atomic-force microscopy (AFM); Differential scanning calorimetry (DSC); Infrared spectroscopy Attenuated Total Reflectance (IR-ATR); Ultraviolet-visible spectroscopy (UV-VIS). Professional skills in area of polymer materials science.

## Principal Publications:

1. S. Simeonova, M. Evstatiev, W. Li, T. Burkhart. **Fabrication and Characterization of Biodegradable Polymer Scaffolds Adapting Microfibrillar Composite Concept.** *Journal of Polymer Science, Part B: Polymer Physics*, 51 (17), pp.1298-1311, **2013**
2. M. Evstatiev, S. Simeonova, K. Friedrich, X.-Q. Pei, P. Formanek. **MFC structured biodegradable poly(L lactide)/poly(butylene adipate-co-terephthalate) blends with improved mechanical and barrier properties.** *Journal of Material Science*, 48 (18), pp.6312-6330, **2013**
3. B. Kostova, E. Kamenska, D. Rachev, S. Simeonova, G. Georgiev, K. Balashev. **Polyzwitterionic copolymer nanoparticles loaded in situ with metoprolol tartrate: synthesis, morphology and drug release properties.** *Journal of Polymer Research*, 2, (20), pp. 1-8, **2013**
4. A. Chanachev, S. Simeonova, P. Georgiev, K. Balashev, Tz. Ivanova, I. Panaiotov. **Monolayer kinetic model of formation of gold nanoparticles by reducing agents hexadecylaniline or bovine serum albumin.** *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 508, pp. 1-7, **2016**
5. P. Georgiev, S. Simeonova, A. Chanachev, L. Mihaylov, D. Nihtianova, K. Balashev. **Acceleration effect of copper (II) ions on the rate of citrate synthesis of gold nanoparticles.** *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 494, pp. 39-48, **2016**
6. K. Balashev, I. Stambolova, V. Blaskov, P. Georgiev, S. Simeonova, S. Vassilev, A. Eliya. **Photocatalytically active Au/TiO<sub>2</sub> films deposited by two-step spray pyrolysis.** *Comptes Rendus de L'Academie Bulgare des Sciences*, 69 (3), pp. 269-274, **2016**
7. A. Chanachev, S. Simeonova, P. Georgiev, Tz. Ivanova, S. Petrova, K. Balashev. **Characterization by atomic force microscopy of gold nanoparticles functionalized with azocasein for protease colorimetric enzyme assay.** Bulgarian chemical communication, submitted, **2017**

## Participation in scientific projects:

**Project 178/2009** "Manufacturing a new technology to produce biodegradable scaffolds for tissue engineering", financed by Sofia University, Scientific Research Fund;

**Project 02/70/2009** "Biomaterials for bone implants calcium-phosphate-based ceramics, cements and hybrid materials", financed by Ministry of Science and Education, Scientific Research Fund;

### **Project "Beyond Everest", FP7-REGPOT-2011-1**

Development of the research potential of the Faculty of Chemistry, Sofia University, in the area of advanced functional materials for successful participation in world-class research at EU level;

**Project 161/2015**, "New methods for functioning of gold nanoparticles with proteins and biopolymers for biotechnology and nanotechnology applications", financed by Sofia University, Scientific Research Fund;

### **Project "Materials Networking project", H2020-TWINN-2015**

Enhancing the scientific capacity of the Faculty of Chemistry and Pharmacy at Sofia University as leading regional research and innovation centre in the area of advanced functional materials;

**Project 80-10-241/2017**, "Obtaining and characterization of viscous chitosan hydrogels as drug delivery systems", financed by Sofia University, Scientific Research Fund.