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Curriculum Vitae

First name(s) / Surname(s) **ALEKSANDAR CHANACHEV**

Address (business) Prof. Boyan Kamenov Str., Sudentski grad, 1700, Sofia

Mobile (optional)

E-mail a.chanachev@mgu.bg

Date of birth 26.10.1989

Positions (at moment) **Head Assistant Professor**

Dates 15.05.2024– till now

Occupation or position held **Head Assistant Professor**

Name and address of employer University of Mining and Geology “St. Ivan Rilski”, Department of Mineral Processing and Recycling

Dates 2022 – till 15.05.2024

Occupation or position held **Head Assistant Professor**

Name and address of employer University of Mining and Geology “St. Ivan Rilski”, Department of Chemistry

Dates 2020 – 2022

Occupation or position held **Assistant Professor**

Name and address of employer University of Mining and Geology “St. Ivan Rilski”, Department of Chemistry

Education and training

Dates **01.02.2015-20.09.2021**

Title of qualification awarded **PhD degree**

Educational institution Sofia University “St. Kliment Ohridski”, Faculty of Chemistry and Pharmacy

Dates **01.10.2013-19.03.2014**

Title of qualification awarded **Master of Science degree (MSc)**

Educational institution Sofia University “St. Kliment Ohridski”, Faculty of Chemistry and Pharmacy

Dates **01.10.2008-17.07.2013**

Title of qualification awarded Bachelor of Science degree (BSc)

Educational institution Sofia University “St. Kliment Ohridski”, Faculty of Chemistry and Pharmacy

Mother tongue(s) **Bulgarian**

Other language(s) **English, French**

Self-assessment	Understanding				Speaking				Writing	
European level (*)	Listening		Reading		Spoken interaction		Listening		Reading	
English	C2	Proficient level	C2	Proficient level	C2	Proficient level	C2	Proficient level	C2	Proficient level
German	B2	Working level	B2	Working level	B2	Working level	B2	Working level	B2	Working level
Japanese	B2	Working level	A1	Working level	A2	Working level	B2	Working level	A1	Working level

(*)Common European Framework of Reference for Languages

Professional information and applications

Professional and Research interests (key words)

Physical chemistry, colloid chemistry, nanoparticles, gold nanoparticles, Langmuir-Blogett films, AFM, TEM, water treatment, enzyme kinetics

Patents and Inventions

Membership of professional and trade organization

Participant in the project Beyond Everest by 7FP of the European Union (2010-2014)

Publications

Appendix 1

Projects

Appendix 2

Participation in scientific sessions, conferences and congresses (for last 5 year)

- **A. Chanachev**, P. Georgiev, Tz. Ivanova, K. Mircheva, K. Balashev and I. Panaiotov, Methods of functionalization of gold nanoparticles with proteins: bulk versus air/water interface approach, Second International Conference Advanced Functional Materials, Nessebar Resort, Bulgaria, 3 – 6 September 2014
- **A. Chanachev**, P. Georgiev, Tz. Ivanova, K. Mircheva, K. Balashev and I. Panaiotov, Methods of functionalization of gold nanoparticles with proteins: bulk versus air/water interface approach, Second International Conference Advanced Functional Materials, Nessebar Resort, Bulgaria, 3 – 6 September 2014.
- **A. Chanachev**, P. Georgiev, Tz. Ivanova, K. Mircheva, K. Balashev, I. Panaiotov, Methods of functionalization of gold nanoparticles with proteins: bulk versus air/water interface approach, Second International Conference Advanced Functional Materials, 2014, poster presentation.
- **A. Chanachev**, P. Georgiev, Tz. Ivanova, K. Balashev, Comparative studies of protein functionalized Gold Nanoparticles by Atomic Force Microscopy (AFM) and Transmission electron microscopy (TEM), Focus on Microscopy, Gottingen, Germany, March 29-April 1, 2015, poster presentation.
- **A. Chanachev**, P. Georgiev, Tz. Ivanova, K. Balashev, Functionalization of gold nanoparticles with proteins and characterization of Langmuir-Blodgett films for biosensor applications, XIV National Conference in Chemistry for Students, May 20-22, 2015, Sofia, Bulgaria, oral presentation.
- **A. Chanachev**, P. Georgiev, K. Mircheva, Tz. Ivanova, K. Balashev, I. Panaiotov, Functionalization of gold nanoparticles with bovine serum albumin for bioapplications, Education, Research and Development, 04-08. 2015, Elenite, Bulgaria, poster presentation.
- **A. Chanachev**, P. Georgiev, S. Simeonova, K. Mircheva, Tz. Ivanova, K. Balashev, New methods for functionalization of gold nanoparticles with proteins and biopolymers for application in bionanotechnology, Scientific Session of Faculty of Chemistry and Pharmacy, 03.12. 2015, Sofia, Bulgaria, poster presentation.
- **A. Chanachev**, S. Simeonova, P. Georgiev, Tz. Ivanova, K. Balashev, Atomic force microscopy characterization of gold nanoparticles functionalized with azocasein for enzyme assay aplications, XV National Conference in Chemistry for Students, May 20-22 2016, Sofia, Bulgaria, oral presentation.
- **A. Chanachev**, S. Simeonova, P. Georgiev, Tz. Ivanova, K. Balashev, Characterisation by atomic force microscopy of gold nanoparticles functionalized with azocasein for protease colorimetric enzyme assay, IX National Conference in Chemistry, 29.09 – 01.10. 2016, Sofia, Bulgaria, poster presentation.
- **A. Chanachev**, S. Simeonova, P. Georgiev, Tz. Ivanova, K. Balashev, TEM and AFM characterization of monomolecular films containing gold nanoparticles, Scientific Session in Faculty of Chemistry and Pharmacy, 24.11.2016, Sofia, Bulgaria, poster presentation.
- **A. Chanachev**, S. Simeonova, P. Georgiev, S. Petrova, Tz. Ivanova, K. Balashev, AFM characterization of gold nanoparticles, functionalized with azocasein for colorimetric enzyme assay applications, XVI National Conference in Chemistry for

Students, May 17-19, 2017, Sofia, Bulgaria, oral presentation.

- **A. Chanachev**, Mechanism of the formation of gold nanoparticles in monolayer environment at the air/liquid interface, ECIS, Madrid, Spain, 2017, poster presentation

Specialization abroad (for last 5 year)

27.11.2023 - 29.12.2023 - short-term specialization specified under the Science and Education for Smart Growth Operational Program (2014-2020) under project BG05M2OP001-2.016-0022, Modernization of higher education in sustainable use of natural resources in Bulgariaat at University of Cordoba, Spain.

Other professional skills

Appendix 1

PUBLICATIONS
2019-2024

1. **A. Chanachev**, P. Georgiev, Tz. Ivanova, K. Balashev, „Study of protein modified gold nanoparticles in bulk phase and at air/water interface", Chemistry, 24 (6), 863-876 (2015).
2. 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 (2016), 494, 39-48,
3. **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 (2016), 508, 1-7
4. **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, (2017)
5. G. Gicheva**, A. Chanachev**, S. A. Kulinich, Bringing space technology to mining – biosensors for health monitoring in real time as a modern management practice, Sustainable extraction and processing of raw materials journal, 2022, vol. 3, DOI: 10.5281/zenodo.7007033/ DOI: 10.58903/c16182117/ DOI: 10.58903/c16182117cCVS
6. G. Gicheva, **A. Chanachev**, N. Mintcheva, Assessment of zeolite use for removal of petroleum compounds from wastewater, Sustainable extraction and processing of raw materials journal, 2024, vol. 5, DOI: 10.58903/dv69110145.

Appendix 2

PROJECTS
2019-2024

1. Short-term specialization specified under the Science and Education for Smart Growth Operational Program (2014-2020) under project BG05M2OP001-2.016-0022, Modernization of higher education in sustainable use of natural resources in Bulgariaat at University of Cordoba, Spain - 27.11.2023 - 29.12.2023