

LARA JURKOVIĆ

(maiden name: Štajner)

PERSONAL DETAILS

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EDUCATION AND QUALIFICATIONS

2014 - 2018 **PhD in Physical Chemistry**
Chemistry Department, Faculty of Science, University of Zagreb, Croatia

2010 - 2012 **Master's Degree in Chemistry (MSc)**
Chemistry Department, Faculty of Science, University of Zagreb, Croatia

2007 - 2010 **Bachelor's Degree in Chemistry (BSc)**
Chemistry Department, Faculty of Science, University of Zagreb, Croatia

KEY TRANSFERABLE SKILLS

- extensive knowledge in the fields of physical chemistry (characterization) and organic chemistry (synthesis)
- 7 years experience in nanotechnology, colloid and surface science
- 6 years experience in crystallization processes (potentiometric *in situ* measurements, ion chromatography)
- 6 years experience in materials characterization technique (FT infrared spectroscopy, powder X-ray diffraction, thermogravimetry, UV and fluorescence spectroscopy, specific surface area using the BET method, porosity using the BJH method)
- 5 years experience in dynamic light scattering and electrophoresis research
- Excellent communication skills, and ability to work both individually and in a team environment

INFORMATION TECHNOLOGY SKILLS

- Advanced skills in MS Office (Word, Excel, PowerPoint)
- CambridgeSoft Chem Office
- Origin and SigmaPlot
- MathCad
- Wide range of proprietary scientific software (e.g. X'PertHighScore)

PROFESSIONAL MEMBERSHIPS

2012 Croatian Chemical Society (Hrvatsko kemijsko društvo, HKD)
2016 Croatian Association of Crystallographers (Hrvatska udruga kristalografa, HUK)
2016 Croatian Biophysical Society (Hrvatsko biofizičko društvo, HBD)
2016 Croatian Microscopy Society (Hrvatsko mikroskopijsko društvo, HMD)

PERSONAL INTERESTS

Alpine skiing, scuba diving (Open Diver, 1 star), roller blading, travel, reading

WORK HISTORY

<u>Jul 2019 –</u>	Laboratory for Marine Nanotechnology and Biotechnology, Center for Marine Research, Ruđer Bošković Institute, Rovinj, Croatia Postdoc position
Project Participation	Croatian Science Foundation „Bioinspired materials – Formation Mechanisms and Interaction (Bio-Mat-Form)“
<u>Nov 2018 – Jun 2019</u>	Physical characterization, R&D, TAPI, Pliva Hrvatska, TEVA, Zagreb, Croatia Senior Researcher
Project Participation	3 projects
<u>Jan 2015 – Nov 2018</u>	Laboratory for Precipitation Processes, Division of Materials Chemistry, Ruđer Bošković Institute, Zagreb, Croatia PhD Student
Project Participation	Croatian Science Foundation „Bioinspired materials – Formation Mechanisms and Interaction (Bio-Mat-Form)“ Croatian-French program „Cogito“ Partnership Hubert Curien “Micro-Raman spectroscopy study of bio-ceramic surface composition changes”
<u>Sep 2014 – Oct 2017</u>	Division of Physical Chemistry, Chemistry Department, Faculty of Science, University of Zagreb, Croatia Assistant
<u>Sep 2013 – Dec 2014</u>	Laboratory for Precipitation Processes, Division of Materials Chemistry, Ruđer Bošković Institute, Zagreb, Croatia Volunteer
<u>Jan 2013 – Aug 2013</u>	Laboratory for Biomineralization, Nanostructures and Radioecology, Center for Marine Research, Ruđer Bošković Institute, Rovinj, Croatia Expert Associate
Project Participation	Croatian Science Foundation „Development of a nanotechnology-based targeted recognition system for biomacromolecules“ EU FP7 Cooperation; SMART-NANO - Sensitive measurement, detection, and identification of engineered nanoparticles in complex biological and environmental matrices

SCIENTIFIC AND SPECIALISED COURSES

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1. 3rd European Crystallography School (ECS3), Bol, Croatia, 25th September – 2nd October 2016.
 2. 13th Greta Pifat Mrzljak International School of Biophysics, Uni Split -Uni Zadar, Croatia, 01st- 10th September 2016.
 3. Workshop Innovative Surfaces and Materials, Primošten, Croatia, 28th -31st October 2016.
 4. BioBash Workshop, Zagreb, Croatia, 29th September 2015.
 5. The 1st European School on Crystal Growth, Bologna, Italy, 5th – 8th September 2015.
 6. Symposium & Workshop on Microscale Thermophoresis, Zagreb, Croatia, 30th June – 1st July 2015.
 7. The InnoMolMolecular Interactions Workshop, Zagreb, RuđerBošković Institute, 1th – 2nd June 2015.
 8. InnoMolBioimaging Workshop, Zagreb, RuđerBošković Institute, 20th – 22th August 2014.
 9. ITS-NANO Workshop, Venice, 21th – 22th March 2013. (invited oral participation)
 10. Training course for national accreditation: “Education and Training in Basic Radiation Safety for Radiation Workers”; Accreditation by the State Office on Radiological and Nuclear Safety for working with ionizing radiation, Zagreb, Croatia; 2nd- 3th July 2013.

SCIENTIFIC PRESENTATION

1. L. Štajner, L. Kordić, S. Matečić Mušanić, Application of thermal analysis as screening tool for monitoring of amorphous phase content and compatibility study, 26th Croatian Meeting of Chemists and Chemical Engineers, Šibenik, Croatia, 9th – 12th April 2019. (poster presentation)
2. T. Grego, L. Štajner, D. Kralj, N. Maltar-Strmečki, Role of EPR spectroscopy in synthesis and sterilization of dental bone graft materials based on calcium sulfate, 14th Greta Pifat Mrzljak International School of Biophysics, Split, Hrvatska, 23.08–01.09.2018. (poster)
3. N. Maltar-Strmečki, L. Štajner, EPR Study of Copper(II) Complexes with Chiral Amino Acids, 4th International Scientific Meeting of COST Action CM1306 “Understanding Movement and Mechanism in Molecular Machines”, Zagreb, Hrvatska, 21. – 24. 03. 2018. (poster)
4. V. Babić Ivančić, L. Štajner, Biomineralization – how to investigate it?, Third regional roundtable: Refractory, process industry, nanotechnologies and nanomedicine ROSOV PINN 2017, Beograd, Srbija, 01. – 02. 06. 2017. (predavanje V. Babić-Ivančić)
5. J. Kontrec, I. BuljanMeić, B. NjegićDžakula, L. Štajner, D. M. Lyons, N. Maltar-Strmečki, M. Plodinec, A. Gajović, M. Čeh, D. Kralj, *Precipitation of amorphous and metastable CaCO₃ phases in the systems with different chemical complexity*, 20thInternational Symposium on Industrial Crystallization (ISIC20), Dublin, Ireland, 3rd – 6th September 2017. (poster)
6. M. Ukrainczyk, L. Štajner, Z. Brkljača, R. Stepić, D. M. Smith, A. -S. Smith, M. Gredičak, I. Jerić, A. Jakas, D. Kralj, *Surface interactions between oligopeptide derivatives of salicylic acid and calcite as a model of an inorganic drug delivery system*, The 10th Joint Meeting on Medicinal Chemistry Dubrovnik, Croatia, 25th-28th June 2017. (poster)
7. N. Maltar-Strmečki, L. Štajner, *Dynamics of Copper(III) Complexes with Chiral Amino Acids Studied by EPR*, Solid-State Science & Research, Zagreb, Croatia, 28th -30th June 2017. (poster)
8. V. BabićIvančić, L. Štajner, *Biomineralization – how to investigate it?*, 3rd regional roundtable: Refractory, process industry, nanotechnologies and nanomedicine ROSOV PINN 2017, Beograd, Serbia, 01st-02nd June 2017. (oral presentation)
9. L. Štajner, Z. Brkljača, A. Jakas, M. Gredičak, D. M. Smith, A.-S. Smith, D. Kralj, *Interactions of tripeptide derivatives of salicylic acid with calcite surfaces*, 25th Croatian Meeting of Chemists and Chemical Engineers, Poreč, Croatia, 19th – 22nd April 2017. (oral presentation).
10. L. Štajner, J. Kontrec, B. Njegić Džakula, D. M. Lyons, N. Maltar- Strmečki, D. Kralj, *Comparison of PXRD and EPR technique for monitoring distortion of calcite lattice in the presence of selected amino acids*, Dynamics of biomolecular machines, 3rd Meeting COST ACTION CM1306, Bugibba, Malta, 27th – 28th March 2017. (oral presentation).
11. L. Štajner, J. Kontrec, B. Njegić Džakula, D. M. Lyons, N. Maltar- Strmečki, D. Kralj, *The role of amino acids as simple models of organic matrix molecules participating in calcium carbonate biomineralization*, 3rd European Crystallography School (ECS3), Bol, Croatia, 25th September – 2nd October 2016. (poster)
12. M. Dutour Sikirić, I. Buljan, J. Kontrec, D. Domazet Jurašin, B. NjegićDžakula, L. Štajner, D. M. Lyons, N. Maltar Strmečki, M. Plodinec, M. Čeh, A. Gajović, D. Kralj, *Comparative study of amorphous phases formation and transformation in calcium phosphate and calcium carbonate precipitation systems*, 30thConference of The European Colloid and Interface Society (ECIS), Rim, Italy, 04th – 09th September 2016. (poster)
13. L. Štajner, B. Njegić Džakula, J. Kontrec, N. Maltar-Strmečki, D. Kralj, *Investigation of selected amino acids influence on calcium carbonate precipitation - simple model of biomineralization*, 13thGreta PifatMrzljak International School of Biophysics, from Uni Split to Uni Zadar, Croatia, 01st- 10th September 2016. (short talk)
14. L. Štajner, B. Njegić Džakula, J. Kontrec, D. Kralj, *Interactions of calcite surfaces with selected amino acids*, Workshop Innovative Surfaces and Materials, Primošten, Croatia, 28th -31st October 2016. (oral presentation)
15. I. Buljan, J. Kontrec, D. DomazetJurašin, B. NjegićDžakula, L. Štajner, D. M. Lyons, N. Maltar- Strmečki, M. DutourSikirić, D. Kralj, *The comparison of precipitation conditions and physical chemical properties of salts relevant for biomineralization, calcium phosphates and calcium carbonates*, 6thInternational Colloids Conference, Berlin, Germany, 19th - 22nd June2016. (poster)
16. I. Buljan, J. Kontrec, D. JurašinDomazet, B. NjegićDžakula, L. Štajner, D. M. Lyons, N. Maltar- Strmečki, A. Gajović, M. DutourSikirić, D. Kralj, *Comparative study of calcium phosphate and calcium carbonate precipitation in model systems of increased complexity*, MC Meeting, WG Meeting, Workshop of COST Action NEWGEN MP13001, Aveiro, Portugal, 17th – 18th March 2016. (poster)
17. L. Štajner, J. Kontrec, B. NjegićDžakula, D. M. Lyons, N. MaltarStrmečki, D. Kralj, *Utjecajaminokiselinaokajednostavnihmodelaorganskogmatriksanabiomineralizacijukalcijevakarbonata*, *Simpozijstudenatadoktorskihstudija PMF*, Zagreb, Croatia, 26th February 2016. (poster presentation, Best poster award)
18. N. Maltar-Strmečki, L. Štajner, J. Kontrec, B. NjegićDžakula, I. Buljan, D. Kralj,*Investigation of incorporation of amino acid into calcite using Mn²⁺ ions as paramagnetic probe*, The 3rdMC Meeting of the CM1306 COST

CURRICULUM VITAE

- Action and 2nd scientific meeting "Dynamics of Biomacromolecular Machines", Lisbon, Portugal, 24th – 26th February 2016. (poster presentation)
19. L. Štajner, D. Kralj, *The role of alanine, aspartic acid and lysine as simple models of organic matrix molecules participating in calcium carbonate biomineralization*, 5th European Conference on Crystal Growth, Bologna, Italy, 9th-11th September 2015. (poster presentation)
 20. H. Kuveždić, D. Šimunović, J. Kontrec, L. Štajner, V. Babić-Ivančić, *Analizana slagana JJ protezu*, 11. Osječki urološki dani, Osijek, Croatia, 21th – 23th May 2015. (poster presentation)
 21. V. Babić-Ivančić, J. Kontrec, L. Štajner, T. Opačak-Bernardi, S. Horvatić, S. Njegovec, E. Zimprich, V. Bermanec, *Pogled kemičara i geologa mikroskopom u bubrežnim i limfokračnikamenac*, 11. Osječki urološki dani, Osijek, Croatia, 21th – 23th May 2015. (oral presentation)
 22. L. Štajner, B. Njegić Džakula, J. Kontrec, T. Dražić, D. Jurašin, M. Dutour Sikirić, D. Kralj, *Comparison of precipitation diagram of biomineral salts, calcium carbonates and calcium phosphates*, 24th Croatian Meeting of Chemists and Chemical Engineers, Zagreb, Croatia, 21th – 24th April 2015. (poster presentation)
 23. L. Štajner, B. Njegić Džakula, J. Kontrec, N. Nekić, D. Jurašin, M. Dutour Sikirić, D. Kralj, *Influence of alanine, aspartic acid and lysine on precipitation of calcium carbonates and calcium phosphates*, 24th Croatian Meeting of Chemists and Chemical Engineers, Zagreb, Croatia, 21th – 24th April 2015. (poster presentation)
 24. Ž. Jakšić, P. Burić, L. Štajner, D. M. Lyons, *The effect of industrially-relevant engineered nanoparticles on marine invertebrates*, 9th NanoBio-Europe Conference Abstract Booklet., Toulouse, France, 2013. 94-95 (poster, international review)
 25. L. Štajner, J. Požar and D. Kovačević, *Complexation of lysozyme with sodium poly(styrenesulfonate)*, 26th Conference of the European Colloid and Interface Society (ECIS), Malmo, Sweden, 2nd – 7th September 2012. (poster presentation)
 26. L. Štajner, J. Požar and D. Kovačević, *Formation and properties of protein-polyelectrolyte complexes on the example of lysozyme-NaPSS complexation*, Joint Meeting of WG 3, WG 4 and WG 5, COST Action CM1101, La Valletta, Malta, 24th – 25th January 2013. (oral presentation)

EDITORIAL BOOK

- 4th International Scientific Meeting of COST Action CM1306 "Understanding Movement and Mechanism in Molecular Machines", Book of Abstracts, Zagreb, 21st – 24th March 2018, editors: N. Maltar-Strmečki, L. Štajner, A. Maršavelski, Institut Ruđer Bošković, 2018 (zbornik).

STUDY ABROAD

- 2018. Department of Chemistry „Giacomo Ciamician“, University of Bologna, Bologna, Italy, 1 month

SCIENTIFIC PAPER

1. L. Štajner, J. Kontrec, B. Njegić Džakula, N. Maltar-Strmečki, M. Plodinec, D. M. Lyons, D. Kralj, *The effect of different amino acids on spontaneous precipitation of calcium carbonate polymorphs*, *Journal of Crystal Growth* **486** (2018) 71-81.
2. I. Buljan Meić, J. Kontrec, D. Domazet Jurašin, B. Njegić Džakula, L. Štajner, D. M. Lyons, M. Dutour Sikirić, D. Kralj, *Comparative study of calcium carbonates and calcium phosphates precipitation in model systems mimicking the inorganic environment for biomineralization*, *Crystal growth & design*, **17** (2017) 1103-1117.
3. L. Štajner, J. Požar and D. Kovačević, *Complexation between lysozyme and sodium poly(styrenesulfonate): the effect of pH, reactant concentration and titration direction*, special issue of *Colloids and Surfaces A* dedicated to the 2014 ECIS conference, **483** (2015) 171-180.
4. P. Burić, Ž. Jakšić, L. Štajner, M. Dutour Sikirić, D. Jurašin, C. Cascio, L. Calzolari, D. M. Lyons, *Effect of silver nanoparticles on Mediterranean sea urchin embryonal development is species specific and depends on moment of first exposure*, *Marine environmental research* **111** (2015) 50-59.