CURRICULUM VITAE – Dr. sc. Ana Šantić

PERSONAL DATA

Name and Surname:	Ana Šantić
Date of birth:	14th June 1975.
Place of birth:	Karlovac, Croatia
Home address:	Zeleni trg 3A, 10000 Zagreb, Croatia

CURRENT POSITION

Position:	Research Associate
Institution:	Glass Laboratory, NMR Center, Ruđer Bošković Institute (RBI)
Address:	Bijenička c. 54, 10000 Zagreb, Croatia
Phone:	++385-(0)1-4571272
E-mail:	asantic@irb.hr
Web site:	http://www.irb.hr/Ljudi/Ana-Santic

WORK EXPERIENCE

2012 – Research Associate
NMR Center, RBI, Zagreb

Field of research: Solid State Chemistry, Charge Carrier Dynamics in Solid Electrolytes, Ionic Liquids, Physical Properties of Bioactive Materials

2007 – 2012 Research Associate, Scientific Novice
NMR Center, RBI, Zagreb

Field of research: Solid State Chemistry, Charge Carrier Dynamics in Solid Electrolytes, Ionic Liquids, Physical Properties of Bioactive Materials

2005 – 2007 Senior Research Assistant, Scientific Novice
NMR Center, RBI, Zagreb

Field of research: Solid State Chemistry, Electrical and Structural Properties of Glasses, Glass-Ceramics

2000 – 2005 Research Assistant, Scientific Novice
Division of Materials Physics, RBI, Zagreb

Field of research: Solid State Chemistry, Electrical Properties of Glasses

EDUCATION

2000 – 2005 Faculty of Science, University of Zagreb, Department of Chemistry,
Postgraduate Study in Inorganic and Structural Chemistry

Academic degree: Ph. D.
21.12.2005. – Doctoral dissertation "Structure and electrical properties of iron phosphate glasses doped with metal oxides"

1993 – 2000 Faculty of Science, University of Zagreb, Department of Chemistry,

Academic degree: B. Sc. in Chemistry

26.06.2000. – Final dissertation in Solid State Chemistry: "Electrical properties of phosphate glasses"

POSTDOCTORAL FELLOWSHIPS, SPECIALIZATIONS

31.01.-31.12.2009 Postdoctoral research fellow on SFB 458 project: "*Ionic Motion in Materials with Disordered Structures: From Elementary Steps to Macroscopic Transport*" Prof. K. Funke's group, Institute of Physical Chemistry, University of Münster, Germany

Field of research: Electrical and Mechanical Properties of Ionic Liquids, Rheology, Conductivity Spectroscopy

07.01.-31.12.2008 Head of post-doc project funded by Croatian Foundation for Science: "Investigation of the ion dynamics in ionic liquids by measuring their frequency-dependent mechanical properties", Prof. K. Funke's group, Institute of Physical Chemistry, University of Münster, Germany

Field of research: Ion Dynamics, Ionic Liquids, Modeling of Conductivity and Fluidity (MIGRATION concept), Mechanical Spectroscopy

11.07.-03.08.2007 Visiting scientist in group of prof. K. Funke, Institute of Physical Chemistry, University of Münster, Germany

Field of research: High-frequency (MHz range) Viscosity of Molten Salts, Quartz Resonator Technique

---

RESEARCH PROJECTS

Head of research projects:

2015 – 2016 "Development of novel supramolecular ionogels for advanced electrolytes", bilateral Croatian-German project (DAAD and Croatian Ministry of Science, Education and Sports)

2015 "Development of supramolecular gels of ionic liquids for application in Li-batteries", financially supported by Croatian Academy of Science and Arts

2010 "The influence of microstructure on electrical properties of humidity-sensitive zirconium titanate ceramics", financially supported by Croatian Academy of Science and Arts

2008 "Investigation of the ion dynamics in ionic liquids by measuring their frequency-dependent mechanical properties", post-doc project supported by Croatian Foundation for Science (HrZZ)

Associate on research projects:

2015 – 2018 **"***Electrical transport in glasses and glass-ceramics*", Research project supported by Croatian Foundation for Science (HrZZ)

2012 – 2015 "*Evaluation of new bioactive materials and procedures in restorative dental medicine*", Collaborative Research Program of Croatian Foundation for Science: RBI-Institute of Physics-School of Dental Medicine, University of Zagreb

2010 – 2011 "*Investigation of electrical mobility and dielectric relaxation of bioactive glasses*", Croatian-Slovenian bilateral project

2010 – 2011 "*Correlation of structure and properties of nanostructured perovskites*", Croatian-Slovenian bilateral project

2009 "*New insights into charge transport in iron phosphate glasses from analysis of conductivity spectra over a wide temperature range*", Croatian-German bilateral project

2007 – "*Influence of structure on electrical properties of (bioactive) glasses and ceramics*", financially supported by Croatian Ministry of Science, Education and Sports

2007 – 2010 "*The origin of structural defects and theirs influence on macroscopic properties of solar silica glass*", financially supported by Croatian Foundation for Science

2005 – 2006 "*Electrical polarization of bioactive glasses*", financially supported by Croatian Academy of Science and Arts

2001 – 2006 "*Structure and electrical relaxation in glasses and glass-ceramics*", financially supported by Croatian Ministry of Science, Education and Sports

2001 – 2003 "*Chemically Durable Iron Phosphate Glasses for Vitrifying Simulated Nuclear Waste*", IAEA Program: Chemical Durability and Performance assessment of Spent Fuel and High Level Waste Forms and Simulated Repository

---

TEACHING

22.09.2010. **Docent** at the Department of Biotechnology, University of Rijeka

Undergraduate Study:

2009 –2012 Lecturer and assistant at undergraduate study "Biotechnology and Investigation of Drugs", Department of Biotechnology, University of Rijeka. Courses: "Introduction to Bioinorganic Chemistry" and "Bioinorganic Chemistry"

2008 – 2009 Assistant at Institute of Physical Chemistry, University of Münster, Germany. Practical Courses: "Physical Chemistry" and "Apparatus Methods in Physical Chemistry"

2006 – 2007 Assistant at Chemistry Department**,** Faculty of Science, University of Zagreb, Practical Course: «General Chemistry and Introduction to Inorganic Chemistry»

AWARDS

Commendation award for research on PbO-Fe_2O_3-P_2O_5 glasses at «The 2004 Younger European Chemists` Conference», Torino, Italy, 25.-29.08.2004.

PROFESSIONAL ACTIVITIES

- Member of the Organizing Committee of the "*3rd European Crystallography School* (*ECS3*)", Bol, Brač, Croatia, 25.9.-2.10.2016
- Secretary of the Organizing Committee of the *29. European Crystallographic Meeting* (*ECM29*), Rovinj, Croatia, 23.-29.08.2015
- Member of the Bid Committee of the *29. European Crystallographic Meeting* (*ECM29*), Rovinj, Croatia, 23.-29.08.2015
- Member of the Organizing Committee of the workshop "*Hot Topics in Contemporary Crystallography*", Šibenik, Croatia, 10.-15.05.2014
- Member of the Organizing Committee of the *Sixteenth Croatian-Slovenian Crystallographic Meeting*, Petrčane, Croatia, 13.-17.06.2007
- Member of the Executive Committee of the Croatian Crystallographic Association, 2012 - 2015

- Member of Professional Organizations: The Croatian Crystallographic Association
  The Croatian Chemical Society
  The Croatian Society for Electron Microscopy
- Member of Assistant Board at Ruđer Bošković Institute, 2005
- Co-webmaster for the Croatian Crystallographic Association: http://www.hazu.hr/kristalografi/

List of publications in peer-reviewed journals:

1. A. Moguš-Milanković, **A. Šantić**, L. Pavić, K. Sklepić: *Iron Phosphate Glass-ceramics*, Croat. Chem. Acta, (2015), accepted for publication.

2. K. Molčanov, J. Stare, B. Kojić-Prodić, C. Lecomte, S. Dahaoui, C. Jelsch, E. Wenger, **A. Šantić**, B. Zarychta: *A polar/π model of interactions explains face-to-face stacked quinoid rings: a case study of the crystal of potassium hydrogen chloranilate dehydrate*, CrystEngComm., 17 (2015) 8645–8656.

3. A. Maršavelski, V. Smrečki, R. Vianello, M. Žinić, A. Moguš-Milanković, **A. Šantić**: *Supramolecular Ionic-liquid Gels with High Ionic Conductivity*, Chem. Eur. J., 21 (2015) 12121-12128.

4. **A. Šantić**, M. Čalogović, L. Pavić, J. Gladić, Z. Vučić, D. Lovrić, K. Prskalo, B. Janković, Z. Tarle, A. Moguš-Milanković: *New Insights into the Setting Processes of Glass Ionomer Cements from Analysis of Dielectric Properties*, J. Am. Ceram. Soc., 98 (2015) 3869-3876.

5. M. Plodinec, **A. Šantić**, J. Zavašnik, M. Čeh, A. Gajović: *Giant persistent photoconductivity in $BaTiO_3/TiO_2$ heterostructures*, Appl. Phys. Lett., 105 (2014) 152101-1-152101-5.

6. L. Pavić, A. Moguš-Milanković, P. Raghava Rao, **A. Šantić**, V. Ravi Kumar, N. Veeraiah: *Effect of alkali-earth modifier ion on electrical, dielectric and spectroscopic properties of Fe_2O_3 doped Na_2SO_4-MO-P_2O_5 glass system*, J. Alloys Compd., 604 (2014) 352-362.

7. L. Pavić, N. Narashima Rao, A. Moguš-Milanković, **A. Šantić**, V. Ravi Kumar, M. Piasecki, I.V. Kityk, N. Veeraiah: *Physical properties of ZnF_2-PbO-TeO_2:TiO_2 glass ceramics – Part III dielectric dispersion and ac conduction phenomena*, Ceram. Int., 40 (2014) 5989-5996.

8. L. Androš, M. Jurić, J. Popović, **A. Šantić**, P. Lazić, M. Benčina, M. Valant, N. Brničević, P. Planinić: *$Ba_4Ta_2O_9$ Oxide Prepared from an Oxalate-Based Molecular Precursor – Characterization and Properties*, Inorg. Chem., 52 (2013) 14299−14308.

9. M. Buljan, O. Roshchupkina, **A. Šantić**, V. Holý, C. Baehtz, A. Mücklich, L. Horák, V. Valeš, N. Radić, S. Bernstorff, J. Grenzer: *Growth of a three-dimensional anisotropic lattice of Ge quantum dots in an amorphous alumina matrix*, J. Appl. Cryst., 46 (2013) 709–715.

10. M. Jurić, J. Popović, **A. Šantić**, K. Molčanov, N. Brničević, P. Planinić: *Single-Step Preparation of the Mixed Ba^{II}−Nb^{V} Oxides from a Heteropolynuclear Oxalate Complex,* Inorg. Chem., 52 (2013) 1832−1842.

11. **A. Šantić,** A. Moguš-Milanković: *Charge carrier dynamics in materials with disordered structures: A case study of iron phosphate glasses,* Croat. Chem. Acta, 85 (2012) 245-254.

12. **A. Šantić**, Ž. Skoko, A. Gajović, S. T. Reis, D. E. Day, A. Moguš-Milanković: *Physical properties of lead iron phosphate glasses containing Cr_2O_3*, J. Non-Cryst. Solids, 357 (2011) 3578-3584.

13. K. Funke, R. D. Banhatti, D. M. Laughman, L. G. Badr, M. Mutke, **A. Šantić**, E. M. Fellberg, C. Biermann: *First and Second Universalities: Expeditions Towards and Beyond*, Z. Phys. Chem. 224 (2010) 1891-1950.

14. **A. Šantić**, C. W. Kim, D. E. Day, A. Moguš-Milanković: *Electrical properties of Cr_2O_3-Fe_2O_3-P_2O_5 glasses, Part II*, J. Non-Cryst. Solids, 356 (2010) 2699-2703.

15. A. Gajović, S. Šturm, B. Jančar, **A. Šantić**, K. Žagar, M. Čeh: *The synthesis of pure-phase bismuth ferrite in the Bi-Fe-O system under hydrothermal conditions without a mineralizer*, J. Amer. Ceram. Soc., 93 (10) (2010) 3173-3179.

16. **A. Šantić**, W. Wrobel, M. Mutke, R. D. Banhatti, K. Funke: *Frequency-dependent fluidity and conductivity of an ionic liquid*, Phys. Chem. Chem. Phys. 11 (2009) 5930-5934.

17. K. Funke, M. Mutke, **A. Šantić**, R. D. Banhatti, W. Wrobel: *Broadband Conductivities and Fluidities of Fragile Ionic Liquids*, Electrochemistry, 77 (8) (2009) 573-581. (IF = 0,865)

18. A. Gajović, **A. Šantić**, I. Djerdj, N. Tomašić, A. Moguš-Milanković, D. S. Su: *Structure and electrical conductivity of porous zirconium titanate ceramics produced by mechanochemical treatment and sintering*, J. Alloys Compd., 479 (2009) 525-531.

19. **A. Šantić**, A. Moguš-Milanković, K. Furić, M. Rajić-Linarić, C. S. Ray, D. E. Day: *Structural properties and crystallization of sodium tellurite glasses*, Croat. Chem. Acta, 81 (4) (2008) 559-567.

20. **A. Šantić**, A. Moguš-Milanković, K. Furić, V. Bermanec, C. W. Kim, D. E. Day: *Structural properties of Cr_2O_3-Fe_2O_3-P_2O_5 glasses, Part I*, J. Non-Cryst. Solids, 353 (2007) 1070-1077.

21. A. Moguš-Milanković, **A. Šantić**, V. Ličina, D. E. Day: *Dielectric behavior and impedance spectroscopy of bismuth iron phosphate glasses*, J. Non-Cryst. Solids, 351 (2005) 3235-3245.

22. A. Moguš-Milanković, **A. Šantić**, S. T. Reis, K. Furić, D. E. Day: *Studies of lead-iron phosphate glasses by Raman, Mössbauer and Impedance spectroscopy*, J. Non-Cryst. Solids, 351 (2005) 3246-3258.

23. A. Moguš-Milanković, **A. Šantić**, M. Karabulut, D. E. Day: *Electrical conductivity and relaxation in MoO_3-Fe_2O_3-P_2O_5 glasses*, J. Non-Cryst. Solids, 345&346 (2004) 494-499.

24. A. Moguš-Milanković, **A. Šantić**, S. T. Reis, K. Furić, D. E. Day: *Mixed ion-polaron transport in Na_2O-PbO-Fe_2O_3-P_2O_5 glasses*, J. Non-Cryst. Solids, 342 (2004) 97-109.

25. A. Moguš-Milanković, **A. Šantić**, M. Karabulut, D. E. Day: *Study of electrical properties of MoO_3-Fe_2O_3-P_2O_5 and SrO-Fe_2O_3-P_2O_5 glasses by impedance spectroscopy. Part II*, J. Non-Cryst. Solids, 330 (2003) 128-141.

26. A. Moguš-Milanković, **A. Šantić**, A. Gajović, D. E. Day: *Spectroscopic investigation of MoO_3-Fe_2O_3-P_2O_5 and SrO-Fe_2O_3-P_2O_5 glasses. Part I*, J. Non-Cryst. Solids, 325 (2003) 76-84.

27. A. Moguš-Milanković, **A. Šantić**, A. Gajović, D. E. Day: *Electrical properties of sodium phosphate glasses containing Al_2O_3 and/or Fe_2O_3. Part II*, J. Non-Cryst. Solids, 296 (2001) 57-64.

28. A. Moguš-Milanković, A. Gajović**, A. Šantić**, D. E. Day: *Structure of sodium phosphate glasses containing Al_2O_3 and/or Fe_2O_3. Part I*, J. Non-Cryst. Solids, 289 (2001) 204-213.