

Curriculum Vitae



Personal information

First name(s) / Surname(s) **GRBOVIC NOVAKOVIC, Jasmina**
Address(es) 12-14, Mike Petrovica Alasa 11 000 Belgrade, Serbia
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E-mail jasnag@vinca.rs, jasnagn@gmail.com
Nationality Serbian
Date of birth 29.09.1973.
Gender Female

Work experience

Dates	From July 2011 to December 2015
Occupation or position held	Senior Research Associate
Main activities and responsibilities	Leader - for Serbia and in charge for Early stage researchers (ESR) and small term scientific missions (STSM) at COST Action MP1103 Nanostructured materials for solid-state hydrogen storage
Name and address of employer	Department of Materials Science, Vinča Institute of Nuclear Sciences, University of Belgrade, 12-14 Mike Petrovića Alasa, 11001 Belgrade, Serbia
Type of business or sector	Scientific Institution
Dates	From April 2012- April 2014
Occupation or position held	Senior Research Associate
Main activities and responsibilities	Researcher on bilateral project Serbia Slovenia: Microstructural investigation of materials for hydrogen storage and correlation with desorption properties
Name and address of employer	Department of Materials Science, Vinča Institute of Nuclear Sciences, University of Belgrade, 12-14 Mike Petrovića Alasa, 11001 Belgrade, Serbia
Type of business or sector	Scientific Institution
Dates	From January 2010
Occupation or position held	Senior Research Associate
Main activities and responsibilities	National project "Synthesis, processing and characterization of nanostructured materials for application in the fields of energy, mechanical engineering, environment and biomedicine" Leader of work package: Experimental and theoretical investigation of materials for hydrogen storage
Name and address of employer	Department of Materials Science, Vinča Institute of Nuclear Sciences, University of Belgrade, 12-14 Mike Petrovića Alasa, 11001 Belgrade, Serbia
Type of business or sector	Scientific Institution
Dates	From 2010 to 2012
Occupation or position held	Senior Research Associate
Main activities and responsibilities	Leader of Bilateral project Spain Serbia "Effects of low energy ion irradiation on the catalytic activity magnesium and magnesium based intermetallic compounds"
Name and address of employer	Department of Materials Science, Vinča Institute of Nuclear Sciences, University of Belgrade, 12-14

Type of business or sector	Mike Petrovića Alasa, 11001 Belgrade, Serbia Scientific Institution
Dates	From 2010 to 2012
Occupation or position held	Senior Research Associate
Main activities and responsibilities	Task leader on Bilateral project between Serbia and Russia: "Ion beam induced nanostructuring of silicon based and materials for hydrogen storage"
Name and address of employer	Department of Materials Science, Vinča Institute of Nuclear Sciences, University of Belgrade, 12-14 Mike Petrovića Alasa, 11001 Belgrade, Serbia
Type of business or sector	Scientific Institution
Dates	2009
Occupation or position held	Senior Research Associate
Main activities and responsibilities	Leader of international project "Inelastic neutron scattering study of the microscopic proton dynamics in ion-bombarded MgH ₂ "
Name and address of employer	Department of Materials Science, Vinča Institute of Nuclear Sciences, University of Belgrade, 12-14 Mike Petrovića Alasa, 11001 Belgrade, Serbia
Type of business or sector	Scientific Institution
Dates	From 2006 to December 2010
Occupation or position held	Research Associate
Main activities and responsibilities	Leader of work package "Synthesis and modification of magnesium based materials for hydrogen storage, within national project " Synthesis and characterisation of nanostructured metallic and intermetallic compounds and their composites"
Name and address of employer	Department of Materials Science, Vinča Institute of Nuclear Sciences, University of Belgrade, 12-14 Mike Petrovića Alasa, 11001 Belgrade, Serbia
Type of business or sector	Scientific Institution
Dates	From 2002 to December 2005
Occupation or position held	Research Assistant
Main activities and responsibilities	Working on national project : "New carbon based materials and their composites"
Name and address of employer	Department of Materials Science, Vinča Institute of Nuclear Sciences, University of Belgrade, 12-14 Mike Petrovića Alasa, 11001 Belgrade, Serbia
Dates	From 2002 to December 2008
Occupation or position held	Research Associate
Main activities and responsibilities	Working on project : "Microstructural investigation of materials for hydrogen storage"
Name and address of employer	ENEA C.R Cascaccia, Rome, Italy
Education and training	
Dates	2005
Title of qualification awarded	PhD
Principal subjects/occupational skills covered	Materials for hydrogen storage: Theme: Kinetics of hydride formation in systems Mg-C, Mg-Fe, Mg-C-Pd (in Serbian)
Name and type of organisation providing education and training	Faculty of Physical Chemistry, University of Belgrade, 12-16, Studentski trg, 11000 Belgrade, Serbia
Dates	From 2000 to 2003
Title of qualification awarded	Magisterium in physical chemistry
Principal subjects/occupational skills covered	Materials for battery application: Theme: " Carbon /carbon composites as supporter for oxygen electrode for application in Zn/air fuel cell "
Name and type of organisation providing education and training	Faculty of Physical Chemistry, University of Belgrade, 12-16, Studentski trg, 11000 Belgrade, Serbia

Dates From October 1992 to 1999
 Title of qualification awarded Graduate degree in physical chemistry
 Principal subjects/occupational skills covered Theme: "Investigation of kinetic reaction of $[\text{Fe}(\text{CN})_4]^{4-}/[\text{Fe}(\text{CN})_4]^{3-}$ electrode in aqueous solution of 0,5M Na_2SO_4 on Pt RDE"
 Name and type of organisation providing education and training Faculty of Physical Chemistry, University of Belgrade, 12-16, Studentski trg, 11000 Belgrade, Serbia

Personal skills and competences

Mother tongue(s) **Serbian**

Other language(s)

Self-assessment

European level (*)

English

Italian

Russian

Spanish

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user
C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user
A1	Basic user	A2	Basic user	A1	Basic user	A2	Basic user	A2	Basic user
A1	Basic user	A2	Basic user	A1	Basic user	A2	Basic user	A2	Basic user

(*) Common European Framework of Reference for Languages

Organisational skills and competences

- 2010 -2014 – **President of Serbian Society for Microscopy**
- 2006-2010 – **Secretary General of Serbian society for Microscopy**
- 2008-2010 – **Secretary General of Vinca Institute Scientific Council**
- Faculty leader of **Hydrogen storage Student Chapter**
- President and member of program and organizing committee of the Joint meeting of 11th Conference of Young Researchers in Field of Material Science and the 1st European Early Stage Researchers Conference of Hydrogen Storage, 03-05. 12. 2012, Belgrade, Serbia
- Member of program committee of the 10th Conference of Young Researchers in Field of Material Science, 21-23. 12. 2011, Belgrade, Serbia
- Member of organizing committee of the 7th International Conference on Mechanochemistry and Mechanical Alloying, 31.8-04.09. 2011, Herceg Novi, Montenegro
- Member of Program committee of 11th Multinational Conference on Microscopy 04.-09.09.2011, Urbino, Italy
- Member of program committee of the 1st Conference of the Serbian Ceramic Society, 17-18. 03.2011, Belgrade, Serbia
- Member of Program and Organizing board of 4th Serbian Congress on Microscopy, Belgrade 11-12. October 2010
- Member of program committee of the 9th Conference of Young Researchers in Field of Material Science, 20-22. 12. 2010, Belgrade, Serbia
- Member of program committee of the 8th Conference of Young Researchers in Field of Material Science, 21-23. 12. 2009, Belgrade, Serbia
- Member of Program committee of Joint meeting of 9th Multinational Conference on Microscopy 2009 and Dreiländertagung 2009 and chairman on the session M7, Graz, Austria
- Member of Program committee of National Conference: 7th Conference of Young Researchers in Field of Material Science, Belgrade, Serbia
- Member of Program and Organizing board of 3rd Serbian Congress on Microscopy, Belgrade, 2007
- Member of Program and Organizing board of national meeting on "50 years of Electron Microscopy in Serbia"

Technical skills and competences

X-ray diffraction and data analysis, SRIM Monte Carlo simulation, SEM, TPD, DSC, TGA and DTA, non isothermal evaluation of kinetics data

Computer skills and competences

Advanced knowledge of Microsoft Office (and Open Office) applications and Internet;
 Advanced knowledge Corel Draw, Adobe Photoshop;
 Experienced in specialized software: Origin, FindIt-XRD data base, PCW-XRD data analysis tool

Professional memberships	<ul style="list-style-type: none"> • President of Serbian society for microscopy • Member of General Council of European microscopy society • Faculty leader of Student chapter of International association for hydrogen energy • Materials research society of Serbia • Society of physical chemists of Serbia
Awards	<ul style="list-style-type: none"> • 2009 IAHE outstanding Service Award • 2009 IUPAP (International Union of Pure and Applied Physics) Women in Physics Grant • 2005 S.I.S.M. grant for best paper on Multinational conference on microscopy • 2003 The best poster on the YUCOMAT2003 conference
Referee	<ul style="list-style-type: none"> • International journal of hydrogen energy • Ultrasonic Sonochemistry • Journal of Materials Research • Hemijska Industrija
Editor	<ul style="list-style-type: none"> • Guest Editor: Novel Perspectives on Hydrogen Storage in Solid Media • Editor: The book of abstract: 1st Conference of the Serbian Ceramic Society • Editor of Monograph of 50 years of microscopy in Serbia • Editor: Proceedings of 4th Serbian Congress for Micorscopy • Editor: Proceedings of 3rd Serbian Congress for Micorscopy
Teaching	<ul style="list-style-type: none"> • Mentor PhD thesis of Ljiljana Matović theme: Change of thermal properties of MgH₂ induced by high-energy ions structural destabilization, finished in 2010 • Mentor of PhD of Sandra Kurko, theme: Theoretical and experimental study of changes induced in MgH₂ matrix by B and N ion irradiation. • Mentor of M.Sc thesis of Željka Rašković-Lovre. theme: Desorption properties of MgH₂-SiC composites finished in 2010: • Mentor of graduate work of Sanja Milošević, theme: Hydrothermal synthesis and hydrogen storage properties of MgH₂-VO₂ composites finished 2011 • Mentor of magisterium of Ljiljana Matović, theme: Catalytic effect of 3d metals group dehydration kinetics of MgH₂ finished in 2007
Social skills and competences	<ul style="list-style-type: none"> • Highly developed team spirit • Flexibility, responsibility • Very organized person • Problem-solving attitude • Readiness to learn new things, open and communicative
Selected Papers in last 5 years	<ol style="list-style-type: none"> 1. Lj. Matović, S. Kurko, Ž. Rašković-Lovre, R. Vujasin, I. Milanović, S. Milošević, J. Grbović Novaković, Assessment of changes in desorption mechanism of MgH₂ after ion bombardment induced destabilization, Int.J.Hyd. Energy 37(8) (2012) 6727-6732 2. S. Milošević, I. Stojković, S. Kurko, J. Grbović Novaković, N. Cvjetičanin, The simple one-step solvothermal synthesis of nanostructured VO₂(B), Ceram. Int. 38(3) (2012) 2313-2317 3. J. Gulicovski, Ž. Rašković-Lovre, S. Kurko, R. Vujasin, Z. Jovanović, Lj. Matović, J. Grbović Novaković, Influence of vacant CeO₂ nanostructured ceramics on MgH₂ hydrogen desorption properties, Ceram. Int. 38 (2) (2012) 1181-1186 4. S. Kurko, Ž. Rašković, N. Novaković, B. Paskaš Mamula, Z. Jovanović, Z. Baščarević, J. Grbović Novaković, Lj. Matović, Hydrogen storage properties of MgH₂ mechanically milled with α and β SiC, Int.J.Hyd. Energy 36 (2011) 549-554 5. S. Kurko, Lj. Matović, N. Novaković, B. Matović, Z. Jovanović, B. Paskaš Mamula, J. Grbović Novaković, Changes of Hydrogen Storage Properties of MgH₂ Induced by Boron Ion Irradiation, Int.J.Hyd. Energy 36 (2011) 1184-1189 6. S. Kurko, B. Paskaš-Mamula, Lj. Matovic, J. Grbovic Novakovic, N. Novakovic, The Influence of Boron Doping Concentration on MgH₂ Electronic Structure, Acta Physica Polonica 120(2)(2011) 238-241 7. N. Novaković, Lj. Matović, J. Grbovic Novaković, I. Radisavljevic, M. Manasijevic N. Ivanović, AB INITIO calculation of MgH₂, MgH₂:Ti AND MgH₂:Co compounds, Int.J.Hyd. Energy 35 (2010) 598-608 8. Lj. Matović, N. Novaković, S. Kurko, M. Šiljegović, B. Matović, N. Romčević, Z. Kacarević-

Congresses and conferences attended- invited lectures

- Popović, N. Ivanović, **J. Grbovic Novaković**, **Structural destabilisation of MgH₂ obtained by heavy ion irradiation**, Int.J.Hyd. Energy 34 (2009) 7275 -7282
9. N. Novaković, Lj. Matović, **J. Grbović Novaković**, M. Manasijević, N. Ivanović. **Ab Initio Study of MgH₂ Formation**, Mat. Sci. & Eng. B, 165(3) (2009) 235-238
 10. **J. Grbović Novaković**, Lj. Matović, S. Milovanović, M. Drvendžija, N. Novaković, D. Rajnović, M. Šiljegović, Z. Kačarević Popović, N. Ivanović, **Changes of hydrogen storage properties of MgH₂ induced by heavy ion irradiation**, Int.J.Hyd. Energy 33(7) (2008) 1876-1879
 11. S. Milovanović, Lj. Matović, M. Drvendžija, **J. Grbović Novaković**, **Hydrogen storage properties of MgH₂ - diatomite composites obtained by high energy ball milling**, J. Micros. 232(3) (2008) 522-525.
 12. A. Montone, **J. Grbović**, M. Vittori Antisari, A. Bassetti, E. Bonetti, A.L.Fiorini, L. Pasquini, L.Mirengi, P.Rotolo, **Nano-micro MgH₂-Mg₂NiH₄ composites: tailoring a multichannel system with selected hydrogen sorption properties**, Int.J.Hyd. Energy 32 (2007) 2026-2934

Congresses and conferences attended -last 3 years

1. **J.Grbovic Novkovic**, **Changes in storage properties of hydrides induced by ion irradiation**, 4th international conference on radiation interaction with materials and its use in technologies 2012, Kaunas. Lithuania, 14.05-17.05.2012
 2. **J. Grbovic Novakovic**, **Modification of metal hydrides with heavy ion irradiation**, First Coordination Meeting on the Program of Cooperation of Serbia and JINR: Condensed Matter Physics with Ion Beams Flerov Laboratory of Nuclear Reactions, Dubna, Russia, 25-27.02 2010
 3. **J.Grbovic Novkovic**, **Hydrogen Storage in Magnesium Based Alloys**, French -Serbian Summer University: renewable energy sources and environment-multidisciplinary aspect (<http://waste-environment.vin.bg.ac.yu/energija/speakers.htm>)
1. S. Milošević, Ž. Rašković-Lovre, I. Milanovic, S. Kurko, R. Vujasin, Z. Bašcarevic, Lj. Matovic, **J. Grbovic Novakovic**, **Microstructure and hydrogen storage properties of MgH₂-TiB₂ composites** .Proceedings of 10th Multinational Cogress of Microscopy, Urbino 4-9.09.2011, Italy, pg.495
 2. Ž. Rašković-Lovre, S.Milošević, I. Milanovic, S. Kurko, R. Vujasin, Z. Bašcarevic, **J. Grbovic Novakovic**, Lj. Matovic, **Microstructure and hydrogen storage properties of MgH₂-TiB₂-SiC composites** Proceedings of 10th Multinational Cogress of Microscopy, Urbino 4-9.09.2011, Italy, pg.507
 3. **J. Grbovic Novakovic**, A.Djukic, B. Paskaš Mamula, N.Novakovic, Lj. Matovic, Lj. Vulicevic, N.Ivanovic, **Microstructure and morphology of natural clay minerals**, Proceedings of 10th Multinational Cogress of Microscopy, Urbino 4-9.09.2011, Italy, pg.639
 4. I.Milanović, R. Vujasin, S. Milošević, Ž. Rašković-Lovre, S. Kurko, Lj. Matović, **J. Grbović Novaković**, **Mechanical synthesis of magnesium based nanocomposites**, 13th annual conference YUCOMAT 2011, Herceg Novi, September 5-9, 2011, Montenegro, pg. 150
 5. I.Milanović, R. Vujasin, S. Milošević, Ž. Rašković-Lovre, S. Kurko, Lj. Matović, **J. Grbović Novaković**, **Mechanochemical synthesis of MgH₂-TiB₂ composites for hydrogen storage** VII International Conference on Mechanochemistry and Mechanical Alloying INCOME 2011, Herceg Novi, August 31-September 3, 2011, pg. 57
 6. I.Milanović, R. Vujasin, S. Milošević, Ž. Rašković, S. Kurko, Lj. Matović, **J. Grbović Novaković**, A. Aurora, A. Montone, **Mechanical milling of magnesium based composites for hydrogen storage**, VII International Conference on Mechanochemistry and Mechanical Alloying INCOME 2011, Herceg Novi, August 31-September 3, 2011, pg. 76
 7. S.Kurko, Igor Milanovic, **J. Grbovic Novakovic**, N. Novakovic, **Role of Boron Doping on MgH₂ Hydrogen Surface Sorption Properties**, Hands-on Tutorial Workshop 2011 on ab initio Molecular Simulations, Towards a First-Principles Understanding of Materials Properties and Functions, Book of abstracts, P31, pg. 30,
 8. R.Vujasin, Lj.Matović, **J. Grbović Novaković**, N. Novaković, **Hydrogen - rutile TiO₂ (110) surface interaction**, Hands-on Tutorial Workshop 2011 on *ab initio* Molecular Simulations, Towards a First-Principles Understanding of Materials Properties and Functions 12-21.6.2011, The book of abstract pg. 45
 9. N. Novaković, B. Paskaš Mamula, I. Radisavljević, **J. Grbović Novaković**, N. Ivanović, **An ab initio study of Mg-H phase diagram**, The book of abstract of 1st Conference of the Serbian Ceramic Society, Belgrade, Serbia 17-18.03.2011 pg.52
 10. T.Tuvić, U. Jovanović, V. Andrić, Lj. Vulićević, **J. Grbović Novaković**, A. Radosavljević Mihajlović, V. Pavlović, N. Ivanović, **Microstructure and phase composition of natural clays**, The book of abstract of 1st Conference of the Serbian Ceramic Society, Belgrade, Serbia 17-18.03.2011 pg.65
 11. Ž. Rašković, S. Kurko, B. Paskaš Mamula, Lj. Matović, N. Novaković, R. Vujasin, **J. Grbović Novaković**, **Improvement of hydrogen storage properties of MgH₂ by α and β -SiC**, The book of abstract of 1st Conference of the Serbian Ceramic Society, Belgrade, Serbia 17-18.03.2011 pg.60
 12. S. Milošević, Ž. Rašković, S.Kurko, Lj. Matović, N. Cvjetičanin, **J. Grbović Novaković**, **The**

- influence of VO₂ on hydrogen desorption properties of MgH₂**, The book of abstract of 1st Conference of the Serbian Ceramic Society, Belgrade, Serbia 17-18.03.2011 pg.49
13. S. Milošević, Ž. Rašković, S. Kurko, Lj. Matović, N. Cvjetičanin, **J. Grbović Novaković, Hydrogen desorption from MgH₂-VO₂ composite** ,Ninth Young Researchers Conference Materials Sciences and Engineering December 20-22, 2010, Belgrade, Serbia, pg. 33
 14. Ž. Rašković, S. Kurko, R. Vujasin, J. Gulicovski, S. Milošević, Lj. Matović, **J. Grbović Novaković, Hydrogen storage properties of MgH₂-CeO₂ composites** , Ninth Young Researchers Conference Materials Sciences and Engineering December 20-22, 2010, Belgrade, Serbia, pg. 33
 15. Lj. Matović, S. Kurko, Ž. Rašković, N. Novaković, Z. Jovanović, **J. Grbović Novaković, Improvement of Hydrogen Storage Properties of MgH₂ by Formation of MgH₂-SiC Nanocomposite**, 11th Eurasia Conference on Chemical Sciences, Amman, Jordan, 6-11. October 2010 pg. 132
 16. Lj. Matović, S. Kurko, Z. Rašković, B. Paskaš Mamula, Z. Baščarević, N. Novaković, **J. Grbović Novaković, Improvement of Hydrogen Storage Properties of MgH₂ by α and β -SiC**, 12th Annual Conference YUCOMAT 2010 Hotel "Plaža", Herceg Novi, Montenegro, September 6–10, 2010, Programme and The Book of Abstracts pg. 114
 17. S. Kurko, B. Paskaš Mamula, Lj. Matović, **J. Grbović Novaković**, N. Novaković, **The Influence Of Boron Doping Concentration On MgH₂ Electronic Structure**, 12th Annual Conference YUCOMAT 2010 Hotel "Plaža", Herceg Novi, Montenegro, September 6–10, 2010 Programme and The Book of Abstracts pg. 120
 18. S. Kurko, N. Novakovic, Lj. Matovic, Z. Raskovic, Z. Jovanovic, B. Matovic, **J. Grbovic Novakovic, MgH₂:B Nanocomposite for hydrogen storage: Ab Initio Calculations and Experiment**, International Symposium " Metal-Hydrogen Systems. Fundamentals and Application, Moscow, Russia, July 19-23, 2010, The Book of abstract pg. 366
 19. Lj. Matovic, S. Kurko, Z. Raskovic, Z. Bascarevic, N. Novakovic, **J. Grbovic Novakovic, M21515 - Improvement of Hydrogen Storage Properties of MgH₂-SiC** Accepted abstract International conference of microscopy IMC 17, Rio de Jenairo, Brasil, september 19-24, 2010
 20. S. Kurko, Ž. Rašković, N. Novaković, **J. Grbović Novaković**, Lj. Matović, **Microstructure Evolution of MgH₂ surface after N₃⁺ ion bombardment** ,Program i knjiga proširenih apstrakata, Četvrti srpski kongres za mikroskopiju 11-12. Oktobar 2010, Beograd, Srbija, strana 53
 21. S. Milošević, Ž. Rašković, S. Kurko, Lj. Matović, **J. Grbović Novaković**, N. Cvjetičanin, **Hydrothermal synthesis of VO₂**, Program i knjiga proširenih apstrakata, Četvrti srpski kongres za mikroskopiju 11-12. Oktobar 2010, Beograd, Srbija, strana 59