



Curriculum Vitae

HRZZ Form

PERSONAL INFORMATION

Name and surname **Svetozar Musić**
 Academic title Dr.
 Year and institution of PhD obtained 1978, University of Zagreb
 Address Bijenička cesta 54, Zagreb
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 Personal web page <http://www.irb.hr/eng/Research/Divisions-and-Centers/Division-of-Materials-Chemistry/Laboratory-for-Synthesis-of-New-Materials/Svetozar-Music>
 Citizenship Croatian
 Date and place of birth 18. 07. 1946. Skopje, Makedonia

WORK EXPERIENCE¹ (CHRONOLOGICALLY*)

Date (from – until) 1998 -
 Institution Ruđer Bošković Institute
 Position Senior scientist
 Work field *Metal oxides chemistry in general*

Date (from – until) 1983 - 1998
 Institution Ruđer Bošković Institute
 Position Senior research associate
 Work field *Metal oxides chemistry in general, metal oxide glasses and glass-ceramics*

Date (from – until) 1978 - 1983
 Institution Ruđer Bošković Institute
 Position Research associate
 Work field *Metal oxides chemistry in general, glasses and glass-ceramics chemistry in general, iron and steel corrosion*

Date (from – until) 1975 - 1978
 Institution Ruđer Bošković Institute
 Position Senior scientific assistant
 Work field *Adsorption/desorption phenomena at the metal oxide/solution interface*

Date (from – until)
 Institution Ruđer Bošković Institute
 Position Assistant
 Work field *Synthesis of radiopharmaceuticals, radioisotope production at cyclotrone*

^{1 2 3} Please add rows to enter all required information

* all information in the document should be entered chronologically – from the most recent to the oldest

EDUCATION²
(CHRONOLOGICALLY)

Date 1978
Place *Zagreb*
Institution *Faculty of Science, University of Zagreb*
Title of qualification awarded Ph. D. in chemistry

Date 1972.
Place *Zagreb*
Institution *Faculty of Science, University of Zagreb*
Title of qualification awarded *M. sc. In chemistry*

Date 1970.
Place *Zagreb*
Institution *Faculty of Science*
Title of qualification awarded *Bs. Sc. in chemistry*

TRAINING
(CHRONOLOGICALLY)

Year 1976-1977
Place *Budimpešta, Mađarska*
Institution *Institute of Physical Chemistry and Radiology, Loránd-Eötvös University*
Subject and skills covered *Mossbauer spectroscopy*

Year 1980-1982
Place *Bethlehem, Pennsylvania, USA*
Institution *Center for Surface and Coatings Research, Lehigh University*
Subject and skills covered *Mossbauer spectroscopy, surface chemistry*

LANGUAGES

MOTHER TONGUE **Croatian**

ENGLISH LANGUAGE

Speaking **Very good**
Writing **Very good**
Reading **Very good**

OTHER FOREIGN LANGUAGES³

Language
Speaking
Writing
Reading

RESEARCH AND OTHER PROJECTS

(CHRONOLOGICALLY; LEADER AND ASSOCIATES; FUNDING SOURCE)

2007 → Project leader: *Synthesis and microstructure of metal oxides and oxide glasses*, MZOŠ
2007 → Program leader: *New functional materials* (15 projects), MZOŠ

TEACHING

(CHRONOLOGICALLY; UNDERGRADUATE, GRADUATE , POSTGRADUATE STUDY PROGRAMMES)

S. Musić, M. Ristić:*Spectroscopic methods in the investigation of materials* , Postgraduate studies at the Faculty of Chemical Engineering and Technology, University of ZagrebD. Kovačević, N. Kallay, **S. Musić**:*Selected Topics from Colloid and Surface Chemistry* Postgraduate studies at the Faculty of Science, University of Zagreb**MENTORSHIP OF DEFENDED DOCTORAL AND MASTER DISSERTATIONS
AND TRAINING OF YOUNG RESEARCHERS AND SCIENTISTS**

(CHRONOLOGICALLY)

1989 – today - Mentorship of 15 defended Doctoral and Master Dissertations

VISITS TO FOREIGN RESEARCH AND EDUCATION INSTITUTIONS

(CHRONOLOGICALLY; ONLY VISITS LONGER THAN 3 MONTHS)

1980-1982: Leigh University, Bethlehem, Penn. USA

1976/1977: Lorand Eotvos University, Budapest, Hungary

AWARDS AND RECOGNITIONS

(CHRONOLOGICALLY)

2006. – Award of Croatian Academy of Sciences and Arts for entire scientific work

ORGANIZATIONAL SKILLS AND COMPETENCES

(CHRONOLOGICALLY; ORGANIZATION OF HOME AND INTERNATIONAL SCIENCE EVENTS)

2012 - member of International Committee of EUCMOS-2012, Cluj-Napoca, Romania

2010 - member of International Committee of EUCMOS-2010, Florence, Italy

2008 - Chair of Organizing Committee of XXIX European Congress on Molecular Spectroscopy, Opatija, 31.08. – 05. 09. 2008.

2008 – member of Organizing Committee of ISIAME 08, Budapest, Hungary

2006 – member of Organizing Committee of EUCMOS-2006, Istanbul, Turkey

2004 – member of Organizing Committee of ISIAME 04, Madrid, Spain

2000 – member of Organizing Committee of „Solid State Chemistry“, Prag, Czech

2000 - ...: member of International Board on the Applications of Mossbauer Effect i član International Conferences on the Applications of Mossbauer Effect“.

MEMBERSHIP IN SCIENCE ORGANIZATIONS AND BODIES

(CHRONOLOGICALLY; HOME AND INTERNATIONAL ORGANIZATIONS AND BODIES)

1995 - 2000 – president of Scientific Council of Division of materials Chemistry

1982 - today - Member of Scientific Council of Ruđer Bošković Institute

1982- today – Member of Election Board of RBI for scientific degrees

1989 – 1995 – Head of the laboratory for the synthesis of new materials

2000 – 2002 – Deputy General Director of RBI

1995 – today – Head of Division of materials Chemistry

COMMISSIONS, COMMITTEES, BOARDS AND WORK GROUPS

(CHRONOLOGICALLY; HOME AND INTERNATIONAL)

2005. - today Member of Council for Nuclear Safety of the Parliament of Republic of Croatia
 Member of International Committee for Applications of Mossbauer Effect
 Member of Expert Team for Monitoring of Decommission and Radioactive Waste Treatment in Nuclear Power Plant „Krško“.

PAPERS

(CHRONOLOGICALLY; RESEARCH BOOKS, HOME AND INTERNATIONAL RESEARCH JOURNALS, HOME AND INTERNATIONAL CONFERENCE PROCEEDINGS; PLEASE WRITE THEIR IMPACT FACTOR)

List of selected CC publications (in last 5 years), published in total 240 scientific papers, h-index = 28. Total number of citations ~ 3000

1. Ristić Mira, Popović Stanko, **Musić Svetozar**: *Application of sol-gel method in the synthesis of gallium(III)-oxide*; *Materials Letters*. 59 (2005) 1227-1233.
2. Ristić Mira, **Musić Svetozar**, Orehovec Zvonko: *Thermal decomposition of synthetic ammonium jarosite*; *Journal of molecular structure*. 744-747 (2005) 295-300.
3. Ristić Mira, **Musić Svetozar**, Ivanda Mile, Popović Stanko: *Sol-gel synthesis and characterization of nanocrystalline ZnO powders*; *Journal of alloys and compounds* 397 (2005) L1-L4.
4. Krehula Stjepko, **Musić Svetozar**, Popović Stanko, *Influence of Ni-dopant on the properties of synthetic goethite*, *Journal of Alloys and Compounds* 403 (2005) 368-375.
5. Štefanić G, **Musić S**, Molčanov K: *The crystallization process of HfO₂ and ZrO₂ under hydrothermal conditions*, *Journal of Alloys and Compounds* 387 (2005) 300-307.
6. Štefanić G, **Musić S**, Trojko R: *The influence of thermal treatment on the phase development in HfO₂-Al₂O₃ and ZrO₂-Al₂O₃ systems*, *Journal of Alloys and Compounds* 388 (2005) 126-137.
7. Štefanić G, Molčanov K, **Musić S**: *A comparative study of the hydrothermal crystallization of HfO₂ using DSC/TG and XRD analysis*, *Materials Chemistry and Physics* 90 (2005) 344-352.
8. Štefanić G, **Musić S**, Gajović A: *Thermal behavior of the amorphous precursors in the ZrO₂-CrO_{1.5} system*, *Journal of Molecular Structure* 744-747 (2005) 541-549.
9. Gotić M, **Musić S**, Ivanda M, Šoufek M, Popović S: *Synthesis and characterisation of bismuth(III) vanadate*, *Journal of Molecular Structure* 744-747 (2005) 535-540.
10. Gajović A, Furić K, Štefanić G, **Musić S**: *In situ high temperature study of ZrO₂ ball-milled to nanometer sizes*, *Journal of Molecular Structure* 744-747 (2005) 127-133.
11. **Musić S**, Dragčević Đ, Popović S, Ivanda M: *Precipitation of ZnO particles and their properties*, *Materials Letters* 59 (2005) 2388-2393.
12. Gajović A, Furić K, Tomašić N, Popović S, Skoko Ž, **Musić S**: *Mechanochemical preparation of nanocrystalline TiO₂ powders and their behavior at high temperatures*, *Journal of Alloys and Compounds* 398 (2005) 188-199.
13. Ristić M, **Musić S**, Godec M: *Properties of α-FeOOH, β-FeOOH and α-Fe₂O₃ particles precipitated by hydrolysis of Fe³⁺ ions in perchlorate containing aqueous solutions*, *Journal of Alloys and Compounds* **417** (2006) 292-299.
14. Štefanić G, **Musić S**, Gajović A: *Structural and microstructural changes in monoclinic ZrO₂ during the ball-milling with stainless steel assembly*, *Mater. Res. Bull.* **41** (2006) 764-777.

15. Ristić Mira, **Musić Svetozar**: *Formation of porous α -Fe₂O₃ microstructure by thermal decomposition of Fe(IO₃)₃*, Journal of Alloys and Compounds. 425 (2006) 384-389.
16. Krehula Stjepko, **Musić Svetozar**: *Influence of ruthenium ions on the precipitation of α -FeOOH, α -Fe₂O₃ and Fe₃O₄ in highly alkaline media*, Journal of Alloys and Compounds 416 (2006) 284-290.
17. Krehula Stjepko, **Musić Svetozar**, Popović Stanko, Skoko Željko: *The influence of Zn-dopant on the precipitation of α -FeOOH in highly alkaline media*, Journal of Alloys and Compounds 420 (2006) 260-268.
18. Krehula Stjepko, **Musić Svetozar**: *Influence of Mn-dopant on the properties of α -FeOOH particles precipitated in highly alkaline media*, Journal of Alloys and Compounds 426 (2006) 327-334.
19. Ivanković S, **Musić S**, Gotić M, Ljubešić N: *Cytotoxicity of nanosize V₂O₅ particles to selected fibroblast and tumor cells*, Toxicology in Vitro 20 (2006) 286-294.
20. Gajović A, Furić K, **Musić S**, Djerdj I, Tonejc A, Tonejc AM, Su DS, Schlogl R: *Mechanism of ZrTiO₄ synthesis by mechanochemical processing of TiO₂ and ZrO₂*, Journal of the American Ceramic Society, 89 (2006) 2196-2205.
21. Žic M, Ristić M, **Musić S**: *⁵⁷Fe Mössbauer, FT-IR and FE SEM investigation of the formation of hematite and goethite at high pH values*, J. Mol. Struct. **834** (2007) 141-149.
22. Ristić M, De Grave E, **Musić S**, Popović S, Orehovec Z: *Transformation of low crystalline ferrihydrite to α -Fe₂O₃ in the solid state*, J. Mol. Struct. **834** (2007) 454-460.
23. Balarin A, Gamulin O, Ivanda M, Djerek V, Čelan O, **Musić S**, Ristić M, Furić K, *Structure and optical properties of porous silicon prepared on thin epitaxial silicon layer on silicon substrates*, J. Mol. Struct. **834** (2007) 465-470.
24. Gotić M, **Musić S**: *Mössbauer, FT-IR and FE SEM investigation of iron oxides precipitated from FeSO₄ solutions*, J. Mol. Struct. **834** (2007) 445-453.
25. Štefanić G, Didović M, **Musić S**: *The influence of thermal treatment on the phase development of ZrO₂-NiO precursors*, J. Mol. Struct. **834** (2007) 435-444.
26. Ivanda M, Furić K, **Musić S**, Ristić M, Gotić M, Ristić D, Tonejc AM, Đerđ I, Mattarelli M, Montagna M, Rossi F, Ferrari M, Chiasera A, Jestin Y, Righini GC, Kiefer W, Goncalves RR: *Low wavenumber Raman scattering of nanoparticles and nanocomposite materials*, Journal of Raman Spectroscopy. **38** (2007) 647-659.
27. Ivanda Mile; Gebavi Hrvoje; Ristić Davor; Furić Krešimir; **Musić Svetozar**; Ristić Mira ; Žonja, Sanja; Biljanović, Petar; Gamulin, Ozren; Balarin, Maja; Montagna, M.; Ferrarri, M.; Righini, G.C.: *Silicon nanocrystals by thermal annealing of Si-rich silicon oxide prepared by the LPCVD method*, Journal of Molecular Structure 834-836 (2007) 461-464.
28. Štefanić G, **Musić S**, Gajović A: *A comparative study of the influence of milling media on the structural and microstructural changes in monoclinic ZrO₂*, J. Eur. Ceram. Soc. **27** (2007) 1001-1016.
29. Knežević Alena, Ristić Mira, Demoli Nazif; Tarle Zrinka, **Musić Svetozar**, Negovetić Mandić Višnja: *Composite Photopolymerization with Diode Laser*, Operative Dentistry 32 (2007) 279-284.
30. Krehula Stjepko, **Musić Svetozar**: *The influence of Cd-dopant on the properties of α -FeOOH and α -Fe₂O₃ particles precipitated in highly alkaline media*, Journal of Alloys and Compounds 431 (2007) 56-64.
31. Krehula Stjepko, **Musić Svetozar**: *Influence of copper ions on the precipitation of goethite and hematite in highly alkaline media*, Journal of Molecular Structure 834-836 (2007) 154-161.

32. Krehula Stjepko, **Musić Svetozar**: *Formation of Magnetite in Highly Alkaline Media in the Presence of Small Amounts of Ruthenium*, *Croatia Chemica Acta* 80 (2007) 517-527.
33. Gotić M, Popović S, **Musić S**: *Influence of synthesis procedure on the morphology of bismuth oxide particles*, *Materials Letters* 61 (2007) 709-714.
34. **Musić S**, Dragčević Đ, Popović S: *Influence of synthesis route on the formation of ZnO particles and their morphologies*, *Journal of Alloys & Compounds* 429 (2007) 242-249.
35. Gotić M, Jurkin T, **Musić S**: *Factors that may influence the micro-emulsion synthesis of nanosize magnetite particles*, *Colloid & Polymer Science* 285 (2007) 793-800.
36. Krehula S, **Musić S**: *Influence of aging in an alkaline medium on the microstructural properties of α -FeOOH*, *Journal of Crystal Growth* 310 (2008) 513-520.
37. **Musić Svetozar**, Šarić Ankica, Popović Stanko: *Dependence of the microstructural properties of ZnO particles on their synthesis*, *Journal of Alloys and Compounds* 448 (2008) 277-283.
38. Gotić M, **Musić S**: *Synthesis of Nanocrystalline Iron Oxide Particles in the Iron(III) Acetate/Alcohol/Acetic Acid System*, *European Journal of Inorganic Chemistry* 2008 (2008) 966-973.
39. Krehula S, **Musić S**, *Influence of cobalt ions on the precipitation of goethite in highly alkaline media*, *Clay Minerals* 43 (2008) 95-105.
40. Krehula Stjepko, **Musić Svetozar**, *A novel route for the synthesis of nanosize particles of metallic palladium*, *Materials Letters* 62 (2008) 4369-4370.
41. Gotić Marijan, **Musić Svetozar**, Popović Stanko, Sekovanić Lavoslav, *Investigation of factors influencing the precipitation of iron oxides from Fe(II) containing solutions*, *Croatia Chemica Acta* 81 (2008) 569-578.
42. Štefanić Goran, **Musić Svetozar**, *Thermal behavior of the amorphous precursors of the ZrO_2 - $GaO_{1.5}$ system*, *Journal of Alloys and Compounds* 460 (2008) 444-452.
43. Štefanić Goran, **Musić Svetozar**, Ivanda Mile, *Thermal behavior of the amorphous precursors of the ZrO_2 - SnO_2 system*, *Materials Research Bulletin* 43 (2008) 2855-2871.
44. Žic Mark, Ristić Mira, **Musić Svetozar**, *Effect of phosphate on the morphology and size of α - Fe_2O_3 particles crystallized from dense β -FeOOH suspensions*, *Journal of Alloys and Compounds* 466 (2008) 498-506.
45. Žic Mark, Ristić Mira, **Musić Svetozar**, *Microstructural changes in particles detected during the transformation from β -FeOOH to α - Fe_2O_3 in dense aqueous suspensions*, *Journal of Alloys and Compounds* 464 (2008) 81-88.
46. Balarin Maja, Gamulin Ozren, Ivanda Mile, Kosović Marin, Ristić Davor, Ristić Mira, **Musić Svetozar**, Furić Krešimir, Krilov Dubravka, Brnjas-Kraljević Jasminka, *Structural, optical and electrical characterization of porous silicon prepared on thin silicon epitaxial layer*, *Journal of Molecular Structure* 924-926 (2009) 285-290.
47. Gotić Marijan, Koščec Goran, **Musić Svetozar**, *Study of the reduction and reoxidation of stoichiometric magnetite*, *Journal of Molecular Structure* 924-926 (2009) 347-354.
48. Krehula Stjepko, **Musić Svetozar**, *The influence of a Cr-dopant on the properties of α -FeOOH particles precipitated in highly alkaline media*, *Journal of Alloys and Compounds* 469 (2009) 336-342.
49. Krehula Stjepko, **Musić Svetozar**, *Formation of iron oxides in a highly alkaline medium in the presence of palladium ions*, *Journal of Molecular Structure* 924-926 (2009) 201-207.
50. **Musić Svetozar**, Ristić Mira, Popović Stanko, *Synthesis and microstructure of porous Mn-oxides*, *Journal of Molecular Structure* 924-926 (2009) 423-427.

51. **Musić Svetozar**, Šarić Ankica, Popović Stanko, Ivanda Mile, *Formation and characterization of nanosize α - Rh_2O_3 particles*, Journal of Molecular Structure 924-926 (2009) 221-224.
52. Štefanić Goran, **Musić Svetozar**, Ivanda Mile, *Phase development of the ZrO_2 - ZnO system during the thermal treatments of amorphous precursors*, Journal of Molecular Structure 924-926 (2009) 225-234.
53. Tarle Zrinka, Knežević Alena, Matošević Danijela, Škrtić Drago, Ristić Mira, Prskalo Katica, **Musić Svetozar**, *Degree of vinyl conversion in experimental amorphous calcium phosphate composites*, Journal of Molecular Structure 924-926 (2009) 161-165.
54. Žic Mark, Ristić Mira, **Musić Svetozar**, *Precipitation of α - Fe_2O_3 from dense β - $FeOOH$ suspensions with added ammonium amidosulfonate*, Journal of Molecular Structure 924-926 (2009) 235-242.
55. Stjepko Krehula, **Svetozar Musić**, *Spectroscopic and electron microscopic investigation of iron oxides formed in a highly alkaline medium in the presence of rhodium ions*, Journal of Molecular Structure 976 (2010) 61-68.
56. Stjepko Krehula, **Svetozar Musić**, *Growth of uniform lath-like α -(Fe,Al) OOH and disc-like α -(Fe,Al) $_2O_3$ nanoparticles in a highly alkaline medium*, Materials Chemistry and Physics 123 (2010) 67-76.
57. Ivana Opačak, Mira Ristić, **Svetozar Musić**, *Preparation and characterization of hollow α - Fe_2O_3 irregular microspheres*, Materials Letters 64 (2010) 2555-2558.
58. R. Mladina, N. Skitarelić, **S. Musić**, M. Ristić, *A biofilm exists on healthy mucosa of the paranasal sinuses: A prospectively performed, blinded, scanning electron microscope study*, Clinical Otolaryngology 35 (2010) 104-110.
59. **S. Musić**, A. Šarić, S. Popović, *Formation of nanosize ZnO particles by thermal decomposition of zinc acetylacetonate monohydrate*, Ceramics International 36 (2010) 1117-1123.
60. M. Žic, M. Ristić, **S. Musić**, *The effect of temperature on the crystallization of α - Fe_2O_3 particles from dense β - $FeOOH$ suspensions*, Materials Chemistry and Physics 120 (2010) 160-166.
61. G. Štefanić, **S. Musić**, M. Ivanda, *Effect of Cu^{2+} ion incorporation on the phase development of ZrO_2 -type solid solutions during the thermal treatments*, Journal of Alloys and Compounds 491 (2010) 536-544.
62. M. Žic, M. Ristić, S. Musić, *Monitoring the hydrothermal precipitation of α - Fe_2O_3 from concentrated $Fe(NO_3)_3$ solutions partially neutralized with $NaOH$* , J. Mol. Struct. 993 (2011) 115-119.
63. A. Šarić, S. Musić, M. Ivanda, *Varying the microstructural properties of ZnO particles using different synthesis routes*, J. Mol. Struct. 993 (2011) 219-224.
64. Krehula, S. Musić, *The effect of iridium(III) ions on the formation of iron oxides in a highly alkaline medium*, J. Alloys Comp. 516 (2012) 207-216.

OTHER RESEARCH ACTIVITIES

(CHRONOLOGICALLY; CHIEF EDITOR OR EDITOR OF RESEARCH BOOK, HOME AND INTERNATIONAL RESEARCH JOURNALS, HOME AND INTERNATIONAL CONFERENCE PROCEEDINGS AND OTHER)

Editorial work:

Proceedings of XXIX European Congress on Molecular Spectroscopy, Opatija, Croatia, 2008

IAEA TECDOC-1069 "Characterization of Ceramics and Semiconductors Using Nuclear Techniques, Vienna, 1999. pp. 245.

COMPUTER SKILLS

MS Word, MS Power Point, MS Excel, Statistica, Origin, Profit, MossWin, etc

OTHER IMPORTANT SKILLS AND COMPETENCES

Production of cyclotron radioisotopes, preparation of radiopharmaceuticals, high experience in the work with different spectroscopic and structural instrumentations

ADDITIONAL INFORMATION AND NOTES

Published chapter in the book "Mossbauer spectroscopy of sophisticated oxides", Akademiai Kiado, Budapest, 1997.