

## PERSONAL INFORMATION

### Zoran Simić



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Sex Male | Date of birth 28/04/1959 | Nationality Serbian

## WORK EXPERIENCE

February 1987 - present

### Assistant

Faculty of Science, University of Kragujevac, Serbia; [www.pmf.kg.ac.rs](http://www.pmf.kg.ac.rs)

- Teaching: Analytical Chemistry, Environmental chemistry

February 2014 - present

### Research Associate

Faculty of Science, University of Kragujevac, Serbia; [www.pmf.kg.ac.rs](http://www.pmf.kg.ac.rs)

- Researching: Analytical Chemistry in non-aqua solutions, AAS, AES

## EDUCATION

2008 –2012

### PhD in Chemistry – Analytical chemistry

Doctoral studies at Faculty of Science, University of Kragujevac, Serbia

- Thesis title „Primena sulfidnih minerala kao potenciometrijskih senzora za acido-bazne titracije u nekim nevodnim rastvaračima“

1987-1991

### MSc degree in Chemistry

Master studies at Faculty of Science, University of Kragujevac, Serbia

- Thesis title „Kulometrijsko-potenciometrijsko određivanje baza u nitrilima, nitrometanu i sulfolanu“

1979 - 1982

### BSc degree in Chemistry

Studies of chemistry at Faculty of Science, University of Kragujevac, Serbia

1974 - 1978

### First Grammar School of Kragujevac, Serbia

## PERSONAL SKILLS

Languages Russian, English

- Computer skills
- MS Office
  - Origin pro
  - SciFinder

- Driving licence
- B, C

## ANNEXES

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- Publications
- International Conferences
- National Conferences

### Publications

1. R. Mihajlović, V. Vajgand, **Z. Simić**,  
"Coulometric generation of hydrogen ions by anodic oxidation of some organic compounds in nitromethane, sulpholane, acetonitrile and acetic acid-acetic anhydride", *Anal. Chim. Acta.*, 265 (1992) 35-42.
2. R. Mihajlović, **Z. Simić**, Lj. Mihajlović, A. Jokić, M. Vukašinović, N. Rakičević, "Application of hydrogen-palladium and deuterium-palladium electrodes in the coulometric-potentiometric determination of bases in some dipolar aprotic solvents", *Anal. Chim. Acta.*, 318 (1996) 287-295.
3. M. Antonijević, **Z. Simić**, Z. Petrović,  
"Natural Sulphide Minerals as Sensors for Determination of Total Acidity of Humic and Fulvic Acids", *Sensor Letters*, 7 (2009) 523-529.
4. Z. Stanić, T. Dimić and **Z. Simić**,  
"Noble Metal Oxides Electrodes and Analytical Application thereof for Acid-Base Titrations in Non-Aqueous Solvents", *J. Electrochem. Soc.* 159 (2012) J168-J175.
5. R. Mihajlović, **Z. Simić**, Lj. Mihajlović, M. Vukičević,  
"Determination of autoprotolysis constants of some non-aqueous solvents using coulometric titration", *Talanta*, 43 (1996) 2131-2136.
6. **Z. Simić**, Z. Stanić, M. Antonijević,  
"Use of sulphide minerals as electrode sensors for acid-base potentiometric titrations in non-aqueous solvents and their application for the determination of certain biologically active substances" *Sensor Letters*, 8 (2010) 784-791.
7. **Z. Simić**, Z. Stanić, M. Antonijević,  
"Application of Pyrite and Chalcopyrite Electrodes for the Acid-Base Determinations in Nitriles" *J. Braz. Chem. Soc.*, 22 (2011) 709-711.
8. Z. Stanić, T. Dimić, **Z. Simić**, Lj. Jakšić, S. Girousi,  
"Electrochemical characterization and analytical application of arsenopyrite mineral in non-aqueous solutions by voltammetry and potentiometry", *Polyhedron* 30 (2011) 702-707.
9. Z. Stanić, J. Stepanović, **Z. Simić**,  
"Arsenopyrite mineral based electrochemical sensor for acid-base titrations in  $\gamma$ -butyrolactone and propylene carbonate", *Monatsh. Chem.* 143 (2012) 1-6.
10. Z. Stanić, J. Stepanović, **Z. Simić**,  
"Voltammetric and potentiometric characterization of magnetite electrode for the assay of weak organic acids in non-aqueous media", *Polyhedron* 45 (2012) 43-47.
11. Z. Stanić, and **Z. Simić**  
"Palladium metal electrode and its analytical application to precipitation and acid-base analysis in aqueous and non-aqueous media" *Journal of Solid State Electrochemistry* 18 (2014) 1823-1832.
12. **Z. Simić**, and Z. Stanić

„TiO<sub>2</sub>-modified carbon paste electrode as a sensor for the assay of weak organic acids/bases and complex matrix samples” *Electroanalysis* 27 (2015) 2699-2707.

13. N. Zlatić, M. Stanković, **Z. Simić**

„Secondary metabolites and metal content dynamics in *Teucrium montanum* L. and *Teucrium chamaedrys* L. from habitats with serpentine and calcareous substrate” *Environ Monit Assess* 189:110 (2017).

14. M. Radulović, M. Stanković, **Z. Simić**, M. Radaković and M. Topuzović

„The accumulation of metals in the *Polygonum aviculare* L. in area of the Kraljevo city” *Kragujevac J. Sci.* 36 (2014) 175-184.

15. J. Milivojević, V. Đekić, M. Jelić, Lj. Bošković-Rakočević, **Z. Simić**, V. Perišić

„Genotype specificity of winter wheat in zinc and copper accumulation in grain” *Agriculture & Forestry*, 61 (2015) 141-147.

16. F. Grbović, M. Stanković, F. Vukajlović, S. Branković, **Z. Simić** and M. Topuzović

„Comparative study of the accumulation of metals in the plant *Polygonum aviculare* L. from different sites in the city of Kragujevac” *Biologica Serbica*, 38 (2016) 12-17.

17. S. Branković, R. Glišić, G. Đelić, M. Topuzović, **Z. Simić**, A. Milošković, V. Đekić

„Bioaccumulation of Elements in Species *Polygonum Amphibium* L. in Reservoir Gruža (Serbia)”

*Water Research and Management*, 7 (2017) 21-26.

### International Conferences

1. R. Mihajlovic, V. Vajdand, **Z. Simic**,

„Coulometric generation of H<sup>+</sup> ions by oxidation of hydrogen dissolved in palladium in benzonitrile and propionitrile”, *Bull. Chem. Technol. Macedonia*, 7 (1989) 103-106.

2. **Z. Simić**

„Coulometric-potentiometric determination of pK<sub>a</sub> values of bases in ethylene carbonate and dimethylsulfoxide”, 7<sup>th</sup> Symposium on Analytical and Environmental problems, SZAB, Szeged, Hungary, 2 oktober (2000), p. 229-233.

3. **Z. Simić**

„Coulometric-potentiometric determination of acids and bases in dipolar aprotic solvents”, 7<sup>th</sup> Symposium on Analytical and Environmental problems, SZAB, Szeged, Hungary, 2 oktober (2000), p. 234-238

4. **Z. Simić**

„Coulometric-potentiometric determination of acids and bases in nitrile and ketone media”, 8<sup>th</sup> Symposium on Analytical and Environmental problems, SZAB, p. 127-131, Szeged, Hungary, 1 oktober (2001).

5. M. Antonijević, **Z. Simić**, Z. Petrović,

„Coulometric-potentiometric determination of acidity of humic acids by application of natural sulphide minerals as sensors” XX Congress of Chemists and Technologists of Macedonia, V Congress of the metallurgists of Makedonija, ACE -11-E, Ohrid, Makedonija, 17-20 September (2008).

6. J. Milivojević, M. Jelić, V. Đekić, **Z. Simić**, K. Luković,

„Pristupačni sadržaji teških metala (Fe, Mn, Zn, Cu, Ni i Pb) u odnosu na svojstva zemljišta na teritoriji grada Kragujevca” 1<sup>st</sup> International Scientific and specialist conference „Ecology in the service of sustainable development” Fruška Gora, 26-28 septembar (2013).

7. J. Milivojević, M. Jelić, V. Djekić, A. Djikić, **Z. Simić**, K. Luković,

„The available contents of heavy metals compared to a soil properties in Kragujevac”, The 1<sup>st</sup> International Congress on Soil Science, XIII National Congress in soil Science, Belgrade, Serbia, September 23-26 th, (2013), p.466-476.

8. J. Milivojević, M. Jelić, V. Djekić, Lj. Bošković-Rakočević, V. Perišić, **Z. Simić**

„Cultivar-specific accumulation of iron, manganese in winter wheat grain”, XVIII International Eco-Conference 2014, p.199-207, Novi Sad, Serbia, September 24-27 th, (2014).

9. B. Šmit, **Z. Simić**, D. Ašanin, R. Pavlović

„Electrochemical selenium-initiated cyclization of alkenyl hydantoins”, The 19<sup>th</sup> International Electronic Conference on Synthetic Organic Chemistry 1-30 November (2015).

10. J. Milivojević, V. Djekić, M. Jelić, **Z. Simić**,

„Chromium (Cr) content in the aboveground portions and kernel of different small grain cultivars” Sixth International Scientific Agricultural Symposium “Agrosym 2015”, Jahorina, Bosnia, October 15-18, (2015). p. 444-455.

11 J. Milivojević, V. Đekić, M. Jelić, **Z. Simić**, V. Perišić

„Prediction of available soil zinc using chemical extractants” 7<sup>th</sup> International Scientific Agricultural Symposium “Agrosym 2016”, Jahorina, Bosnia, October 6-9, (2016). p. 2026-2031.

11. G. Đelić, **Z. Simić**, S. Branković

Sadržaj teških metala makrofita u akumulaciji „Međuvršje” Prva ekološka konferencija sa međunarodnim učesćem, Smederevo, 9-10 decembar (2015. Zbornik radova p. 99-104.

12. S. Branković, G. Đelić, **Z. Simić**, R. Glišić, V. Đekić, F. Grbović, M. Marin

- Bioaccumulation of metal in plant "Matricaria Inodora L."* XXII Savetovanje o Biotehnologiji sa međunarodnim učešćem, Čačak 10-11 mart (2017)
13. R. Mihajlović, V. Vajgand, **Z. Simić**,  
"Kulometrijsko generisanje  $H^+$  jonova u propionitrilu i benzonitrilu oksidacijom vodonika rastvorenog u paladijumu", Fifth Yugoslav Symposium on Analytical Chemistry, Ohrid 13-17 juni (1988), EM-53.
14. R. Mihajlović, **Z. Simić**, V. Vajgand,  
"Kulometrijsko generisanje  $H^+$  jonova anodnom oksidacijom nekih organskih jedinjenja u nitrometanu", XI Savetovanje na hemičarite i tehnolozite na Makedonija, Skopje 5-7 oktombri (1989), A3-3.
15. R. Mihajlović, V. Vajgand, **Z. Simić**,  
"Coulometric generation of protons by anodic oxidation of some organic compounds in nitromethane and sulfone", Euroanalysis VII B4 P-Fr-70, Vienna, Austria, 26-31 august (1990).
16. **Z. Simić**, R. Mihajlović,  
"Coulometric determination of some organic acids in acetonitrile and propionitrile", Euroanalysis IX We P103, Bologna, Italy, 1-7 september (1996).
17. R. Mihajlović, **Z. Simić**,  
"Coulometric-potentiometric determination of the  $pK_a$  values of organic bases in some dipolar aprotic solvents", Euroanalysis IX We P92, Bologna, Italy, 1-7 september (1996).
18. T. Dimić, Z. Stanic, **Z. Simić**  
"Metallic oxide electrodes and analytical application thereof", Euroanalysis XVI EC-11, Belgrade, Serbia 11-15 September (2011).
19. J. Milivojević, M. Jelić, V. Djekić and **Z. Simić**,  
"Availability of some heavy metals (Fe, Mn, Zn, Cu, Ni, Pb) in relation to the properties of the production plots of the city of Kragujevac, Serbia" The 1<sup>st</sup> International Congress on Soil Science, XIII National Congress in Soil Science, September 23-26<sup>th</sup> (2013), Belgrade, Serbia. p. 109.
20. **Z. Simić**, Z. Stanić, J. Milivojević  
"TiO<sub>2</sub>-carbon paste electrode as a sensor for potentiometric acid-base titrations" XXIII Congress of Chemists and Technologists of Macedonia, EC-10, Ohrid, R. Macedonia, 8-11 October (2014).
21. **Z. Simić**, J. Milivojević  
"Carbon paste Pb<sub>3</sub>O<sub>4</sub> Ion selective electrode with the addition of polythiophene as pH sensor for potentiometric acid-base titrations" XXIII Congress of Chemists and Technologists of Macedonia, EC-11, Ohrid, R. Macedonia, 8-11 October (2014).
22. J. Milivojević, V. Djekić, M. Jelić, Lj. Bošković-Rakočević, **Z. Simić**, V. Perišić,  
"Genotype specificity of winter wheat in zinc and copper accumulation in grain", Fifth International Scientific Agricultural Symposium "Agrosym 2014", Jahorina, Bosnia, October 23-26, (2014). p. 75.
23. S. Branković, R. Glišić, **Z. Simić**  
"Metal accumulation of some endemic serpentinophytes in a site on Central Serbia" 6<sup>th</sup> Balkan Botanical Congress, Rijeka (Croatia), September 14-18, (2015), pp-52.
24. J. Milivojević, V. Djekić, M. Jelić, **Z. Simić**  
"Chromium (Cr) content in the aboveground portions and kernel of different small grain cultivars" Sixth International Scientific Agricultural Symposium "Agrosym 2015", Jahorina, Bosnia, October 15-18, (2015), p.136.
25. **Z. Simić**, Z. Stanić  
"Enargite carbon paste electrode as a sensor acid-base determination in methanol and dimethylformamide" 24th Congress of Chemists and Technologists of Macedonia 11-14 September (2016) in Ohrid, Macedonia. AC 003 p. 43.
26. **Z. Simić**, B. Šmit, J. Milivojević  
"1,2,4-Trihydroxybenzene/hydroxyl-1,4-benzoquinone is carbon paste electrode as pH sensors" 24th Congress of Chemists and Technologists of Macedonia, 11-14 September (2016) in Ohrid, Macedonia. AC 002 p. 42.
27. S. Branković, F. Grbović, G. Đelić, **Z. Simić**, M. Marin and S. Čupara  
"Phytoaccumulation of metals in three different species of Šumadija region" The International Bioscience Conference and the 6<sup>th</sup> International PSU-UNS Bioscience Conference-IBSC 2016 19-21 september (2016), Novi Sad Serbia p. 58-59.
28. J. Milivojević, V. Đekić, M. Jelić, **Zoran Simić**, V. Perišić  
"Prediction of available soil zinc using chemical extractants" 7<sup>th</sup> International Scientific Agricultural Symposium "Agrosym 2016", Jahorina, Bosnia, October 6-9, (2015). P-495 p. 774.
29. S. Branković, G. Đelić, **Z. Simić**, R. Glišić, V. Đekić, F. Grbović, M. Marin  
*Bioaccumulation of metal in plant "Matricaria Inodora L."* XXII Savetovanje o Biotehnologiji sa međunarodnim učešćem, Čačak 10-11 mart (2017) zbornik radova 1. p. 441-446.
30. G. Đelić, S. Timotijević, **Z. Simić**, S. Pavlović  
"Prilog proučavanja upotrebe vrsta *Populus Alba L.* i *populus nigra L.* u fitoremedijaciji"  
Druga Ekološka Konferencija sa Međunarodnim Učešćem 25-26. 11. (2016) u Smederevu, p.119-125.
31. J. Milivojević, V. Djekić, **Z. Simić**, M. Jelić, K. Luković,

*"The origin and content of Ni in vertisol Serbia"*

VIII International Scientific Agricultural Symposium "Agrosym 2017", Jahorina, Bosnia, October 05-08, (2017). p. 546.

32. J. Milivojević, V. Đekić, **Z. Simić**, K. Luković, V. Perišić,

*„Copper Accumulation and availability in Serbian smonitza soil“*

2<sup>nd</sup> International and 14<sup>th</sup> National Congress for Sustainable Soil Management, 25-28<sup>th</sup> September (2017), Novi Sad Serbia, p.94.

## National Conferences

1. R. Mihajlović, D. Maljković Lj. Mihajlović **Z. Simić**

*"Composition of active mud and water in the system for purification of polluted waters from the town Kragujevac",*

I. Regional Symposium, "Chemistry and the environment" Vrnjačka Banja (1995), (S) I<sub>p</sub>-38, p.251-254.

2. R. Mihajlović, K. Plavšić, Lj. Mihajlović, **Z. Simić**

*"Accumulation of some heavy metals in soil on the territory of the Smederevska palanka community",* I. Regional Symposium "Chemistry and the environment" Vrnjačka Banja, (1995), (S) I<sub>p</sub>-36, p.243-246.

3. R. Mihajlović, V. Vajgand, **Z. Simić**,

*"Kulometrijsko generisanje H<sup>+</sup> jonova anodnom oksidacijom nekih organskih depolarizatora u nitrilima",* Savetovanje SHD, Beograd (1988), AH-17.

4. R. Mihajlović, V. Vajgand, **Z. Simić**,

*"Kulometrijsko generisanje H<sup>+</sup> jonova u nitrometanu i sulfolanu oksidacijom vodonika rastvorenog u paladijumu",* XXXIII savetovanje SHD i VII sastanak hemičara Vojvodine, Novi Sad 16-18 januar (1991), AH-10p, s202.

5. R. Mihajlović, V. Vajgand, **Z. Simić**,

*"Kulometrijsko generisanje D<sup>+</sup> jonova u nevodnim rastvaračima oksidacijom deuterijuma rastvorenog u paladijumu",* XXXV Savetovanje SHD, Beograd 18-20 januar (1993), AH-1 s108.

6. R. Mihajlović, **Z. Simić**,

*"Kulometrijsko-potenciometrijsko određivanje pK<sub>s</sub> nekih aprotičnih rastvarača, XXXVII Savetovanje SHD, Novi Sad 1-2 juni (1995), FH-32p s222.*

7. Z. Stanić, J. Stepanović, **Z. Simić**,

*"Electrochemical characterization and analytical application by voltametry and potentiometry",* I Savetovanje SHD, AH P-1, Beograd, Srbija, 14-15 jun (2012).

8. G. Đelić, **Z. Simić**, S. Branković,

*"Akumulacija i distribucija teških metala kod Galinsoga parviflora CAV i Erigeron canadensis L., invazivnih vrsta u Flori Srbije",* Botanički simpozijum-Treći vek botanike u Vojvodini, Нови Сад, 15 april (2016). Knjiga sažetaka 59-60.

9. G. Đelić, S. Timotijević, **Z. Simić**, S. Branković,

*"Adoption and distribution of metals in the species of genus populus" 12<sup>th</sup> Symposium of the Flora of Southeastern Serbia and Neighboring regions. Kopaonik 16<sup>th</sup>-19<sup>th</sup> June (2016). Book of abstract p 71.*

10. S. Branković, R. Glišić, G. Đelić, M. Topuzović, **Z. Simić**, A. Milošković, V. Đekić,

*"Bioaccumulation of elements in species Polygonum L. in reservoir Gruža (Serbia)"*

46<sup>th</sup> Annual Conference of the Serbian Water Pollution Control Society "Water 2017", Vršac 6-8 jun (2017), p.71.