

LIČNE INFORMACIJE



Prof. Dr. Emir Turkušić

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Datum rođenja: 01.05.1954.

Mjesto rođenja: Jajce, Bosna i Hercegovina

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ZAPOSLENJE

Prirodno-matematički fakultet Univerziteta u Sarajevu

Odsjek za hemiju, Katedra za opštu i anorgansku hemiju

Zmaja od Bosne 35, 71 000 Sarajevo, Bosna i Hercegovina

Dr. Emir turkušić, redovni profesor za oblast Opšta hemija

Farmaceutsko-zdravstveni fakultet Univerziteta u Travniku

Redovan profesor na predmetima instrumentalne metode, fizikalna hemija i materijali u stomatologiji

Redovan profesor na doktorskom studiju na predmetu senzori i biosenzori

OBRAZOVANJE

1961 – 1969.	Osnovna škola, Berta Kučera, Jajce
1969 – 1973.	Gimnazija
1973 – 1980.	Studij: Tehnološko – metalurški fakultet, Beograd
1980.	Diplomski rad: Određivanje žive u ribljim prerađevinama metodom atomske apsorpcione spektroskopije-postupkom „hladne pare“
1989 – 1991.	Postdiplomski studij, Zagreb, Fakultet Tehnologije i kemijskog inženjerstva, Elektrokemija
1989 – 1991.	Postdiplomski studij, Zagreb, Fakultet Tehnologije i kemijskog inženjerstva, Elektrokemija
1996 - 1997.	Postdiplomski studij, Sarajevo - Zagreb, Prirodno-matematički fakultet Sarajevo, Fizikalna hemija
1998.	Magistarski rad: "Elektrohemijska mjerenja parametara katodne zaštite kao kriterij ocjene procesa korozije i efikasnosti zaštite"

1992 – 1995.

Ratni period proveo u Sarajevu i bio aktivni učesnik oružanih snaga.

1996 - 1998.

Asistent za oblast opšte hemije i fizikalne hemije, Prirodno-matematički fakultet, Sarajevo.

1998 - 2002.

Viši asistent za oblast opšte hemije i fizikalne hemije, Prirodno-matematički fakultet, Sarajevo.

Do 2001.

Pomoćnik ministra za nauku u Federalnom ministarstvu obrazovanja, nauke, kulture i sporta, angažovan u nastavi na Prirodno-matematičkom fakultetu. Pokrenuo prvi put poslije rata niz aktivnosti u području afirmacije naučno-istraživačkog rada kroz dodjelu pomoći za magistarske i doktorske studije i naučno istraživačke projekte u iznosu od oko 1,5 miliona KM, kroz što je oko 200 mladih koji se bave naukom na fakultetima i institutima u Federaciji Bosne i Hercegovine pomognuto u naučnoistraživačkom radu

Od 2002.

Docent na predmetu Opšta hemija, angažovan u nastavi.

2003 - 2007.

Ministar obrazovanja i nauke u Vladi Kantona Sarajevo. Pokrenuo aktivnosti za izradu Zakona o naučnoistraživačkoj djelatnosti Kantona Sarajevo koji je usvojen 2004. godine. Politika nauke u Kantonu Sarajevo je dobila visoko međunarodno priznanje od UNESCO Office in Venice kroz „Guidelines for a Science and Research Policy in Bosnia & Herzegovina“, u kojem stoji da jedino u KS postoji respektabilan fond i savjet za nauku koji transparentno dodjeljuje sredstva za naučne projekte i ostale aktivnosti u polju razvoja nauke.

Od 2012.

Vanredni profesor na Prirodno-matematičkom fakultetu.

Od 2018.

Redovni profesor na Prirodno-matematičkom fakultetu.

LIČNE VJEŠTINE

Hobiji: Skijanje, podvodni ribolov, gitara, slikanje na platnu.

Maternji jezik

Bosanski jezik

2001.

Odbrana doktorske disertacije "Razvoj nekih novih amperometrijskih biosenzora" pred mješovitom međunarodnom komisijom na Prirodno-matematičkom fakultetu Univerziteta u Sarajevu. Dizertacija urađena na Karl-Franzens Univerzitetu u periodu od 1997-2001, Graz, Austria, u okviru međunarodnog naučno-istraživačkog projekta "Razvoj novih biosenzora"

Odbrana doktorske disertacije "Razvoj nekih novih amperometrijskih biosenzora" pred mješovitom međunarodnom komisijom na Prirodno-matematičkom fakultetu Univerziteta u Sarajevu. Dizertacija urađena na Karl-Franzens Univerzitetu u periodu od 1997-2001, Graz, Austria, u okviru međunarodnog naučno-istraživačkog projekta

"Razvoj novih biosenzora"

RADNO ISKUSTVO

Ostali jezici

Njemački jezik
Engleski jezik

RAZUMIJEVANJE		GOVOR		PISANJE
Slušanje	Čitanje	Govorna interakcija	Govorna produkcija	
C1	C1	C1	C1	C1
B2	B2	B2	B2	B2
Stepeni: A1/2: Početnik – B1/2: Samostalni korisnik – C1/2 Iskusni korisnik Zajednički europski referentni okvir za jezike				

Rad na računar

Računarski programi.

PEDAGOŠKA

AKTIVNOST

Nastavni proces na
Prirodno-matematičkom
fakultetu, Sarajevo:

Opšta hemija I i II, Opšta hemija za fizičare, Senzori i biosenzori, Senzorske tehnologije

Nastavni proces na drugim fakultetima:

Mašinski fakultet u Sarajevu, Hemija, Hemija drveta i pomoćnih materijala

International University of Sarajevo-General Chemistry

Stomatološki fakultet-dio predmeta Materijali u stomatologiji.

Mentorstva II i III ciklusa

09.06.2006.

Magistarski rad: „Some metal oxides as mediator for the amperometric determination of hydrogen peroxide“ Sabine Begić, Karl-Franzens Univerzitet, Graz, Austrija (Magistra rerum naturalium).

09.06.2008.

Magistarski rad: „Kvalitativna i kvantitativna in vitro analiza korozionog ponašanja dentalnih amalgama“, Anite Bajsman. Stomatološki fakultet u Sarajevu u saradnji sa Karl-Franzens Univerzitet-om, Graz, Austrija.

Oktobar 2017.

Magistarski rad: kandidatkinja Belme Musakadić, „Ispitivanje medijatorskih osobina Natrij dihlorobis(N-fenil-5-hlorosalicilideniminato-N,O)rutenat(III) kompleksa za razvoj novih senzora“

2017. godina

Doktorska disertacija Safete Redžić. „Razvoj novog senzora na bazi Ru(III) kompleksa izvedenih iz supstituiranih salicilaldehida i fenolamina“, Prirodnomatemički fakultet u Sarajevu.

2017. godina

Doktorska disertacija Mirhe Pazalja, “Razvoj novog senzora za tiolne spojeve na bazi dihloro-bis[N-fenil-5-halogeno-salicilideniminato-N,O]rutenat(III) kompleksa kao elektron transfer medijatora“

Studijski boravci u inostranstvu

7.1996.

Tehnički univerzitet Graz, Katodna zaštita podzemnih konstrukcija

Karl-Franzens Univerzitet Graz, Istraživački rad na projektu, "Amperometric Biosensor

11.1997. for the Determination of Glucose Based on a Manganese Dioxide-Modified Carbon Paste Electrode"

2.3.1998. Institut za fizikalnu hemiju univerziteta u Mannheimu, Njemačka, Elektrohemijske metode

Karl-Franzens Univerzitet Graz, Austria, Istraživački rad na projektu, "Amperometric

8-9.10.1998. Determination of Glucose with a MnO_2 and Glucose Oxidase Bulk-Modified Screen Printed Carbon Ink Sensor"

Do 2000. Ukupno 14 mjeseci

07.2003. Karl-Franzens Univerzitet Graz; Austria, Some metal oxides as mediators for sensors and biosensors (Project: Development of new sensors and biosensors)

06.2004. Karl-Franzens Univerzitet Graz; Austria, Some metal oxides as mediators for sensors and biosensors (Project: Development of new sensors and biosensors)

07.2005. Karl-Franzens Univerzitet Graz; Austria, Some metal oxides as mediators for sensors and biosensors (Project: Development of new sensors and biosensors)

01.2006. University Pardubice, Czech Republic

NAUČNA OBLAST

ELEKTROHEMIJSKI SENZORI I BIOSENZORI

Od 1997. do danas stalni član naučno-istraživačkog tima Prof. Dr. Kurta Kalchera na Karl-Franzens Univerzitetu, Graz, Austria, što je rezultiralo razvijenjem dva u svijetu jedinstvena amperometrijska biosenzora za glukozu i glutamat i novom dvoenzimskom metodom za određivanje vezane glukoze elektrohemijskim putem kao i originalnom metodom za elektrohemijsko određivanje C-vitamina.

BIBLIOGRAFIJA

PUBLIKACIJE U NAUČNIM ČASOPISIMA

Radovi indeksirani u Web of Science

1. Kahrović, Emira, Adnan Zahirović, Aleksandar Višnjevac, Inesa Osmanković, **Emir Turkušić** and Harun Kurtagić. „Chalcone and Flavonol Copper(II) Complexes Containing Schiff Base Co-Ligand: Synthesis, Crystal Structures and Catecholase-like Activity.“ *Croatica Chemica Acta*, 91(2), (2018): 1-13.
2. Zahirović, Adnan, Emira Kahrović, Marina Cindrić, Sandra Kraljević Pavelić, Mirsada Hukić, Anja Harej, and **Emir Turkušić**. "Heteroleptic ruthenium bioflavonoid complexes: From synthesis to in vitro biological activity." *Journal of Coordination Chemistry* 70, no. 24 (2017): 4030-4053.

3. **Turkušić, Emir**, Safeta Redžić, Emira Kahrović, and Adnan Zahirović. "Electrochemical Determination of Adrenaline at Ru (III) Schiff Base Complex Modified Carbon Electrodes." *Croatica Chemica Acta* 90, no. 2 (2017): 1-8.
4. Kahrović, Emira, Adnan Zahirović, Šeherzada Kadrić, **Emir Turkušić**, Inesa Osmanković, and Huriya Džudžević Čančar. "Structural feature of calf thymus deoxyribonucleic acid–ruthenium (III) interaction in aqueous solution by difference Fourier transformed infrared spectroscopy." *Spectroscopy Letters* 50, no. 8 (2017): 426-431.
5. Kahrović, Emira, Adnan Zahirović, Sandra Kraljević Pavelić, **Emir Turkušić**, and Anja Harej. "In vitro anticancer activity of binuclear Ru (II) complexes with Schiff bases derived from 5substituted salicylaldehyde and 2-aminopyridine with notably low IC50 values." *Journal of Coordination Chemistry* 70, no. 10 (2017): 1683-1697.
6. Redžić, Safeta, Emira Kahrović, Adnan Zahirović, and **Emir Turkušić**. "Electrochemical Determination of Dopamine with Ruthenium (III)-Modified Glassy Carbon and Screen-Printed Electrodes." *Analytical Letters* 50, no. 10 (2017): 1602-1619.
7. Pazalja, Mirha, Emira Kahrović, Adnan Zahirović, and **Emir Turkušić**. "Electrochemical sensor for determination of L-cysteine based on carbon electrodes modified with Ru (III) Schiff base complex, carbon nanotubes and Nafion." *Int. J. Electrochem. Sci* 11 (2016): 10939-52.
8. Kahrović, Emira, Adnan Zahirović, **Emir Turkušić**, and Sabaheta Bektaš. "A Dinuclear Ruthenium (II) Schiff Base Complex with Dissimilar Coordination: Synthesis, Characterization, and Biological Activity." *Zeitschrift für anorganische und allgemeine Chemie* 642, no. 6 (2016): 480-485.
9. Ljubijankić, Nevzeta, Adnan Zahirović, **Emir Turkušić**, and Emira Kahrović. "DNA binding properties of two ruthenium (III) complexes containing Schiff bases derived from salicylaldehyde: Spectroscopic and electrochemical evidence of CT DNA intercalation." *Croatica Chemica Acta* 86, no. 2 (2013): 215-222.
10. **Turkusic, Emir**, and Emira Kahrovic. "Development of new low potential amperometric sensor for L-cysteine based on carbon ink modification by Tetraethylamonium dichloro-bis [N-phenyl5-bromosalicylideniminato-N, O] ruthenat (III)." *Technics Technologies Education Management*, 7 3 (2012): 1300-1303.
11. Kahrovic, Emira, and **Emir Turkusic**. "New Ruthenium Complexes with Schiff Bases as Mediators for the Low Potential Amperometric Determination of Ascorbic Acid, Part II: Voltametric and Amperometric evidence of mediation with Bromoderivative of Tetraethylamonium dichloro-bis [N-phenyl-5-halogeno-salicylideniminato-N, O] ruthenat (III)." *HealthMed6*, no. 3 (2012): 1046-1049.
12. Kahrovic, Emira, **Emir Turkusic**, Nevzeta Ljubijankic, Shefket Dehari, Dije Dehari, and Anita Bajsman. "New Ruthenium Complexes with Schiff Bases as Mediators for the Low Potential Amperometric Determination of Ascorbic Acid, Part I: Voltametric and Amperometric evidence of mediation with Tetraethylamonium dichloro-bis [N-phenyl-5-hloro-salicylideniminato-N, O] ruthenat (III)." *HealthMED* 6, no. 2 (2012): 699-702.
13. Kahrovic, Emira, Mejra Bektasevic, and **Emir Turkusic**. "Ruthenium (III) Chloride complex with Salicylaldehyde: Synthesis, characterization and interaction with albumin and DNA." *Technics Technologies Education Management* 6, no. 3 (2011): 692-697.

Naučni radovi

14. **Turkusic, Emir**, Sabina Begic, Emira Kahrovic, and Kurt Kalcher. "Amperometric Determination of Glucose with FeO and Glucose Oxidase Bulk-Modified Screen-Printed Carbon Ink Biosensor." *HEALTHMED* 5, no. 5 (2011): 1117-1122.
15. **Turkusic, Emir**, Sabina Begic, Emira Kahrovic, and Kurt Kalcher. "Amperometric determination of hydrogen peroxide with FeO bulk-modified screen-printed carbon ink sensor." *HealthMED* 5 (2011): 949-955.
16. **Turkusic, Emir**, Emira Kahrovic, Becir Heljic, Azra Kudumovic, and Kurt Kalcher. "Determination of total inorganic arsenic in ground water samples in Canton Sarajevo with a Field Spectrometric Device based on Gutzeit reaction." *HealthMED*(2011): 990.
17. **Turkusic, Emir**, Josef Kalcher, Emira Kahrovic, Negussie W. Beyene, Helmut Moderegger, Emin Sofic, Sabina Begic, and Kurt Kalcher. "Amperometric determination of bonded glucose with an MnO₂ and glucose oxidase bulk-modified screen-printed electrode using flow-injection analysis." *Talanta* 65, no. 2 (2005): 559-564.
18. Waryo, Tesfaye T., Sabina Begic, **Emir Turkusic**, Karel Vytras, and Kurt Kalcher. "Fe₃O₄modified thick film carbon-based amperometric oxidase-biosensor." Scientific papers of the University of Pardubice. Series A. Faculty of Chemical Technology 11 (2005): 265-279.
19. Waryo, T. T., S. Begic, **E. Turkusic**, K. Vytras, and K. Kalcher. "Metal oxide-based carbon amperometric H₂O₂-transducers and oxidase biosensors." *Sensing in Electroanalysis* (2005): 145-191.
20. Beyene, Negussie W., Petr Kotzian, Klemens Schachl, Hailemichael Alemu, **Emir Turkušić**, Amira Čopra, Helmut Moderegger, Ivan Švancara, Karel Vytrás, and Kurt Kalcher. "(Bio) sensors based on manganese dioxide-modified carbon substrates: retrospections, further improvements and applications." *Talanta* 64, no. 5 (2004): 1151-1159.
21. Schachl, Klemens, **Emir Turkušić**, Alena Komersová, Martin Bartoš, Helmut Moderegger, Ivan Švancara, Hailemichael Alemu, Karel Vytrás, Maria Jimenez-Castro, and Kurt Kalcher. "Amperometric determination of glucose with a carbon paste biosensor." *Collection of Czechoslovak chemical communications* 67, no. 3 (2002): 302-313.
22. **Turkušić, Emir**, Kurt Kalcher, Klemens Schachl, Alena Komersova, Martin Bartos, Helmut Moderegger, Ivan Svancara, and Karel Vytras. "Amperometric determination of glucose with an MnO₂ and glucose oxidase bulk-modified screen-printed carbon ink biosensor." *Analytical letters* 34, no. 15 (2001): 2633-2647.
23. **Turkusic, Emir**, Vladimir Milicevic, Hamid Tahmiscija, Midhat Vehabovic, Sanela Basic, and Vesna Amidzic. "Amperometric sensor for L-ascorbic acid determination based on MnO₂ bulk modified screen printed electrode." *Fresenius' journal of analytical chemistry* 368, no. 5 (2000): 466-470.

1. Eminovic, Izet, Emira Kahrovic, Aner Mesic, **Emir Turkusic**, Dzenana Kargic, Adnan Zahirovic, and Zana Dolicanin. "Cytogenotoxic effects of two potential anticancer Ruthenium (III) Schiff Bases complexes." *Journal of Health Sciences* 6, no. 2 (2016).
2. Kahrović, E., S. Bektaš, **E. Turkušić**, and A. Zahirović. "Evidence on antimicrobial activity of Sodium dichloro-bis [N-phenyl-5-chlorosalicylideneiminato-N, O] ruthenate (III) against gram positive bacteria." *Der Pharma Chemica* 8(6), (2016): 174-178.
3. Zahirović Adnan, **Turkušić Emir**, Kahrović Emira. "Bis(iminato)ruthenates(III): Correlation of Half-wave Potential and Hydrolysis Constant with Electronic Effects of Substituent", *Bulletin of the Chemists and Technologists of Bosnia and Herzegovina* 45, (2015) 1-8.
4. Sabina Begić-Hairlahović, Emira Kahrović, **Emir Turkušić**, „Synthesis, Caracterization and Interaction with CT DNA of Novel Cationic Complex Ru(III) with Indazole and Schiff Base Derived from 5-Chlorosalicylaldehyde“, *Bulletin of the Chemists and Technologists of Bosnia and Herzegovina* 43 (2014) 15-20.
5. Bajsmán A., **Turkušić E.**, Vuković A., Zukić S., Zukanović A., Kahrović E., „Analysis of metals released from dental amalgam alloy using inductivStomatological review 3 (1) (2014) 17-28. ely coupled plasma-mass spectrometry“,
6. Kahrovic, Emira, Adnan Zahirovic, and **Emir Turkusic**. "Calf thymus DNA intercalation by anionic Ru (III) complexes containing tridentate Schiff bases derived from 5-X-Substituted salicyladehyde and 2-Aminophenol." *Journal of Chemistry and Chemical Engineering* 8, no. 4 (2014)
7. **E. Turkušić**, V. Milićević, E. Kahrović et al., "Amperometric sensor for determination of L-ascorbic acid based on carbon electrode modified by MnO₂", *Pharmacia*, 1999, 14.

PUBLIKACIJE NA NAUČNIM KONFERENCIJAMA

Svjetske i međunarodne konferencije

1. Adnan Zahirović, Emira Kahrović, Marina Cindrić, **Emir Turkušić**, Irnesa Svraka. *Synthetic Approaches to First Ruthenium – Quercetin Complexes: Insight into Design, Reactivity towards CT DNA and Antioxidant Activity*. 13th European Biological Inorganic Chemistry Conference, Budapest, Hungary, August 28 – September 01 2016, Book of Abstracts, p. 301 (P148).
2. Emira Kahrović, Adnan Zahirović, Šeherzada Kadrić, **Emir Turkušić**. *Structural View on Ru(III)-CT DNA Interaction in Aqueous Solution by FTIR Spectroscopy*. 13th European Biological Inorganic Chemistry Conference, Budapest, Hungary, August 28 – September 01 2016, Book of Abstracts, p. 184 (P031).

3. Safeta Redžić, Emira Kahrović, Mithat Asotić, **Emir Turkušić**. *New amperometric sensor for dopamine in the presence of ascorbic acid using Sodium bis[N-2-oxyphenyl-5-bromosalicylideneiminato-ONO]ruthenate(III)/MWNTs/Nafion modified GC electrode*. Pure and Applied Chemistry International Conference, Bangkok, Thailand, February 2016, Book of Abstracts.
4. Mirha Pazalja, Emira Kahrović and **Emir Turkušić**, *Development of a new amperometric sensor for L-cysteine and 2,5-dimercapto-1,3,4-thiadiazole based on carbon electrode modified with sodium dichloro-bis[N-phenyl-5-bromosalicylideneiminato-N,O]ruthenate(III) complex*, Fifth Regional Symposium on Electrochemistry – South - East Europe (RSE- SEE), Pravets, Bulgaria, 7-11 June 2015, Book of Abstracts.
5. Adnan Zahirović, Sabaheta Bektaš, Ilda Graca, Maida Puška, **Emir Turkušić**, Emira Kahrović, *A new complex of Ru(III) with N-(2-pyridyl)salicylideneimine: DNA binding properties and activity against Staphylococcus Aureus*, 12 th European Biological Inorganic Chemistry Conference, Zurich, Switzerland, August 24-28, 2014, J. Biol. Inorg. Chem. (2014), 19 (Suppl 2), S790.
6. Adnan Zahirovic, Sabina Begic-Hairlahovic, Nevzeta Ljubijankic, **Emir Turkusic**, Emira Kahrovic, *The Spectroscopic characterization of some Ru(III) complexes with Schiff bases derived from salicylaldehyde and investigation of interaction with CT DNA*, International Turkish Congress on Molecular Spectroscopy, Istanbul, Turkey, September 15-20, 2013, Book of Abstracts, Applied Spectroscopies – P7, p. 88.
7. Emira Kahrović, **Emir Turkušić**, Nevzeta Ljubijankić, Sabina Begić, Vera Dugandžić and Adnan Zahirović *"The Spectroscopic Investigations of a Ruthenium Schiff Base Complex with CT DNA"*, 40 International Congress on Coordination Chemistry, Valencia, Spain, September 9-13, 2012. Book of Abstracts, MS.D2.P.601, C404-C405.
8. A.Bajsmán, M. Malić, E. Kahrović, S. Begić, A. Konjhodžić - Prčić, **E. Turkušić** and K. Kalcher, *"Electrochemical analysis of corrosion behaviour of dental amalgams"*, 12th International Conference on Electroanalysis, ESEAC 2008 Prague, June 16-19, 2008.
9. Kurt Kalcher, Petr Kotzian, Sabina Begic, **Emir Turkusic**, and Karel Vytras; *Heterogenous Carbon Electrodes*. 12th International Conference on Electroanalysis, ESEAC 2008 Prague, June 16-19, 2008.
10. K. Kalcher, **E. Turkusic**, Karel Vytras, Sabina Begic, Petr Kotzian and Tesfaye Tadese. *The 6th East Asia Conference on Chemical sensors EACCS-6* Nov. 6-9, 2005 Guilin, China, "Heterogeneous Carbon Sensors and Biosensors", Tsinghua University.
11. Tesfaye T. Waryo, Sabina Begic, **Emir Turkusic**, Karel Vytras, Kurt Kalcher *Fe₃O₄ modified carbon as H₂O₂ transducer for amperometric biosensors*, 8th Symposium on Instrumental Analysis, September 25-28, 2005, Graz, Austria.
12. K. Kalcher, T. Wodayo, S. Begic, **E. Turkusic**, K. Vytras and P. Kotzian, *Amperometric sensors and biosensors based on heterogenous carbon electrodes modified with metal oxides*, 8th symposium on Instrumental Analysis, September 25-28, 2005, Graz, Austria.
13. Sabina Begic, Tesfaye Tadesse Waryo, **Emir Turkusic** and Kurt Kalcher; *Iron Oxide Fe₃O₄ as a Mediator for the Amperometric Determination of Hydrogen Peroxide*, YISAC 2004, June 30/July 3, 2004., Karl-Franzens University, Graz, Austria.

14. Kurt Kalcher, K. Vytras, Ivan Svancara, **Emir Turkušić**, and P. Kotzian, *Heterogeneous Carbon Sensor*, Egypt. 4th International Conference on Electrochemistry ICE IV, February 16-19 (2004), Assuan, Egypt (invited lecture).
15. Negussie W. Beyene, Petr Kotzian, Klemens Schachl, Hailemichael Alemu, **Emir Turkušić**, Amira Chopra, Helmut Moderegger, Ivan Svancara, Karel Vytras and Kurt Kalcher;
(Bio)Sensors Based on Manganese Dioxide-Modified Carbon Substrates: Retrospections, Further Improvements and Applications, Presented at the 12th International Conference on Flow Injection Analysis, Merida (Venezuela), Dec 7-13, 2003.
16. **E. Turkušić**, E. Kahrović, E. Sofić, S. Begić, K. Kalcher, "Amperometric determination of glutamate with nafion film immobilized glutamate oxidase and manganese dioxide bulkmodified screen printed electrode", Annual Meeting of the International Society of Electrochemistry (ISE), Sao Paolo, Brasil, August 31 to September 5th, 2003.
17. **E. Turkušić**, E. Kahrović, E. Sofić, S. Begić, K. Kalcher, "Amperometric determination of glutamate with nafion film immobilized glutamate oxidase and manganese dioxide bulkmodified screen printed electrode", Annual Meeting of the International Society of Electrochemistry (ISE), Sao Paolo, Brasil, August 31 to September 5th, 2003
18. **E. Turkušić**, J. Kalcher, E. Kahrović, K. Kalcher, E. Omanović "Amperometric Determination of Bonded-Glucose With a MnO₂ and Glucose Oxidase Double Bulk-Modified Screen Printed Electrode and glucosidase from *Aspergillus niger* Using Flow Injection Analysis", Elsevier Science Oxford, The Seventh World Congress on Biosensors, Kyoto, Japan, 15-17 May 2002
19. Kurt Kalcher, Karel Vytras, Negussie W Beyene, **Emir Turkusic**, Amira Čopra, *Sensors and biosensors based on heterogeneous carbon electrodes modified with manganese dioxide*, Elsevier Science Oxford, The Seventh World Congress on Biosensors, Kyoto, Japan, 15-17 May 2002.
20. **Emir Turkušić**, Kurt Kalcher and Amira Čopra, *Amperometric Determination of Glutamate Using an Manganese Dioxide Bulk Modified Screen-Printed Electrode With a Nafion®-Film Immobilised Glutamate Oxidase*, YISAC 2001, July 2-5, 2001., Department of Analytical Chemistry University of Pardubice, Czech Republic.
21. Amira Čopra, Kurt Kalcher, **Emir Turkušić**, and Milka Maksimović, *Development of an Amperometric Sensor for the Determination of Uric Acid*, YISAC 2001, July 2-5, 2001, Department of Analytical Chemistry University of Pardubice, Czech Republic.
22. **Emir Turkušić**, Vladimir Milićević, Zdravko Pujić, Midhat Vehabović and Jasminka Turkušić, *Amperometric Determination of L-Ascorbic Acid Using Sensor Based on MnO₂ Bulk Modified Carbon Ink Screen-Printed Electrode in Hydrodynamic Mode*, Second Croatian Congress on Pharmacy with International Participation, Cavtat, May 31 to June 3, 2001.
23. **Emir Turkušić** and Kurt Kalcher, *Amperometric determination of bonded-glucose with an MnO₂ and glucose oxidase double bulk modified screen printed electrode and glucosidase from *aspergillus niger* using flow injection analysis*, YISAC 2000, Karl-Franzens University, Institute for Analytical Chemistry, July 2-5, 2000. Graz, Austria.
24. Kurt Kalcher, Karel Vytras, Ivan Svancara, Alena Komersova, **Emir Turkušić** and Esmā Ruždić, *Some Recent Developments of Voltammetric Sensors Based on Heterogeneous Carbon Matrices, Modern Electroanalytical Methods*, An International Conference to Mark the

40th Anniversary of the Award of the Nobel Prize to Professor Jaroslav Heyrovsky, September 19-23, 1999. Seč, Czech Republic.

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