OSOBNE INFORMACIJE

# Igor Đerđ

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Spol M | Datum rođenja 23/08/1972 | Državljanstvo hrvatsko

RADNO MJESTO

**Redoviti profesor**
**Sveučilište Josipa Jurja Strossmayera u Osijeku, Odjel za kemiju, Cara Hadrijana 8/A, 31000 Osijek**

RADNO ISKUSTVO

26. 09. 2019. - danas

Redoviti profesor
Odjel za kemiju, Cara Hadrijana 8/A, 31000 Osijek

- Vođenje različitih znanstvenih projekata
- Rad sa studentima, održavanje nastave
- Upravno administrativni poslovi na unapređenju kvalitete znanstvenih istraživanja.

Djelatnost ili sektor: Visoko obrazovanje i znanost

01. 01. 2016. - 25. 09. 2019.

Izvanredni profesor i Zamjenik pročelnika za znanstvenoistraživačku djelatnost
Odjel za kemiju, Cara Hadrijana 8/A, 31000 Osijek

- Vođenje različitih znanstvenih projekata
- Rad sa studentima, održavanje nastave
- Upravno administrativni poslovi na unapređenju kvalitete znanstvenih istraživanja.

Djelatnost ili sektor: Visoko obrazovanje i znanost

15. 04. 2015. -31. 12. 2015.

Viši znanstveni suradnik
Institut Ruđer Bošković, Bijenička 54, 10000 Zagreb

- Vođenje različitih znanstvenih projekata, istraživanja i diseminacije rezultata.

Djelatnost ili sektor: Visoko obrazovanje i znanost

01. 07. 2009. -14. 04. 2015.

Znanstveni suradnik
Institut Ruđer Bošković, Bijenička 54, 10000 Zagreb

- Vođenje različitih znanstvenih projekata, istraživanja i diseminacije rezultata.

Djelatnost ili sektor: Visoko obrazovanje i znanost

01. 03. 2010. – 28. 02. 2011.

Gostujući znanstvenik

Kemijski inštitut Ljubljana, Hajdrihova 19, 1000 Ljubljana, Slovenija

- Vođenje različitih znanstvenih projekata, istraživanja i diseminacije rezultata.

Djelatnost ili sektor: Znanstveno istraživanje

01. 01. 2007. – 30. 06. 2009.

Poslijedoktorand

Department of Materials, ETHZ, Zürich, Switzerland
- Znanstvena istraživanja i diseminacija rezultata.

Djelatnost ili sektor: Znanstveno istraživanje

01. 10. 2005. – 31. 12. 2006. Poslijedoktorand

Max-Planck-Institute of Colloids and Interfaces, Colloid Chemistry, Potsdam, Germany
- Znanstvena istraživanja i diseminacija rezultata.

Djelatnost ili sektor: Znanstveno istraživanje

01. 01. 2004. – 30. 09. 2005. Viši asistent

Sveučilište u Zagrebu, Prirodoslovno-matematički fakultet, Fizički odsjek
- Znanstvena istraživanja i diseminacija rezultata
- Rad sa studentima, održavanje nastave.

Djelatnost ili sektor: Znanstveno istraživanje

01. 07. 1998. – 31. 12. 2003. Asistent (doktorand)

Sveučilište u Zagrebu, Prirodoslovno-matematički fakultet, Fizički odsjek
- Znanstvena istraživanja i diseminacija rezultata
- Rad sa studentima, održavanje nastave.

## OBRAZOVANJE I OSPOSOBLJAVANJE

19. 12. 2003. Doktor prirodnih znanosti

Sveučilište u Zagrebu, Prirodoslovno-matematički fakultet, Fizički odsjek
- Naslov disertacije: „Strukturna ispitivanja nanokristalnog titanovog dioksida".

27. 03. 1997. Diplomirani inženjer fizike
- Naslov diplomskog rada: „Granice zrna nanokristaliničnog $ZrO_2$".

30. 06. 1991. Prirodoslovno-matematički tehničar

Matematička gimnazija Osijek

## OSOBNE VJEŠTINE

Materinski jezik: hrvatski

Ostali jezici

| | RAZUMIJEVANJE | | GOVOR | | PISANJE |
|---|---|---|---|---|---|
| | Slušanje | Čitanje | Govorna interakcija | Govorna produkcija | |
| Engleski jezik | C2 | C2 | C2 | C2 | C2 |
| Njemački jezik | B1 | C1 | B1 | B1 | B2 |

Stupnjevi: A1/2: Početnik - B1/2: Samostalni korisnik - C1/2 Iskusni korisnik
Zajednički europski referentni okvir za jezike

Komunikacijske vještine
- Izvrsne komunikacijske vještine stečene tijekom višegodišnjeg rada sa suradnicima (znanstveno istraživanje) i studentima (nastava), te tijekom izlaganja i diskutiranja na različitim znanstvenim skupovima na hrvatskom i engleskom jeziku.

Organizacijske / rukovoditeljske vještine
- Izvrsne rukovoditeljske vještine stečene tijekom višegodišnjeg vođenja znanstveno-istraživačkih projekata i istraživačkih timova.
- Član organizacijskog odbora Festivala znanosti u Osijeku (2016.).
- Član organizacijskog ili znanstvenog odbora brojnih međunarodnih kongresa.
- Član Matičnog odbora za polje fizike (2017. – 2021.)
- Član COST recenzentskog panela (2018.-2021.)

Računalne vještine
- Svakodnevno aktivno korištenje programskog paketa Microsoft Office™, Origin, DFT software Wien 2k i ostalih brojnih programa potrebnih za realizaciju znanstvenih projekata.

Ostale vještine
- **Licenca za rad na transmisijskim elektronskim mikroskopima:**
- 1. JEOL-JEM-2100-UHR,
- 2. Zeiss EM 912Ω,
- 3. Philips CM200-FEG with a GIF 100 GATAN Energy Filter,
- 4. Philips CM 30.
- **Licenca za rad na X-ray difraktometru:**
- XRD Powder Diffractometer X'pert PRO

Vozačka dozvola
- B

## DODATNE INFORMACIJE

Projekti

**Voditelj projekata:**

1. "Sinteza i karakterizacija novih metalnih oksida u ionskim tekućinama" (2011.-2012.) / MZOS- DAAD.

2. "Strukturna karakterizacija novih kompleksnih materijala s potencijalnom primjenom" (2011.-2012.)/ MZOŠ - Ministry of Science and Education of Montenegro.

3. "Strukturna karakterizacija novih nanočestica dopiranih metalnih oksida" (2011.-2012.) MZOŠ- Ministry of Science and Technological Development of Serbia.

4. „Novi anorgansko-organski hibridni materijali: rasvjetljavanje strukture kombinacijom praškaste difraktometrije i optimizacije geometrije primjenom računa teorije funkcionala gustoće (DFT)" (2013.-2014.) / MZOŠ – COGITO (France).

5. "Porozni multifunkcionalni materijali - potraga za multiferoicima" (2013.) /donacija Zaklade HAZU.

6. „Multiferoični kompleksni metalni telurati: Proučavanje odnosa struktura-svojstva"- voditelj (2014.) /donacija HEP-a.

7. „Multifunctional complex metal tellurates: Structure-property relationship study (2013.-2015.) Unity through Knowledge Fund (UKF).

8. „Metal-Hydride Organic Frameworks (HOF)-new solids for gas adsorption and

separation"-voditelj projekta (hrvatski tim) (2014.-2017.)-Swiss National Science Foundation.

9. „Effective modulation of ZnO band gap and the modulation mechanism study (ZnO band gap study)"- voditelj projekta (scientist in charge) (2014.-2016.)- Newfelpro dolazna shema.

10. „Sol-gel sinteza i karakterizacija $TiO_2$ nanostruktura s poboljšanom električnom vodljivošću" (2014.-2015.) / MZOS- DAAD.

11. „Prema novom dizajnu magnetootpornih materijala s elektrostatički kontroliranim magnetskim svojstvima" (2015.-2016.) / MZOS- DAAD.

12. „Nekonvencionalni multiferoici" (2014.-2015.)/ MZOS- ARRS (Slovenija).

13. „Multifunkcionalni kompleksni metalni telurati: proučavanje odnosa strukture i svojstva" (2015.) /donacija Zaklade HAZU.

**14. „Istraživanje složenih multiferoičnih materijala pripravljenih metodama otopinske kemije" (2017.-2021.) / istraživački projekt HRZZ.**

15. „Nanostrukturni hibridi $LaCoO_3$ kao vrlo efikasni elektrokatalizatori" (2017.-2018.) / MZO - DAAD.

16. „Modificirana sol-gel metoda sinteze kompleksnih kvaternarnih metalnih oksida koji sadrže volfram s netrivijalnim magnetskim ili/i električnim svojstvima" (2016.-2017.) / MZO – OeAD (Austrija).

17. „Istraživanje perovskitnih multiferoičnih materijala pripravljenih metodama otopinske kemije" (2017.-2018.) / Hrvatska - Mađarska.

18. „Istraživanje stabilnih organometalnih halidnih perovksita s primjenama u fotovoltaicima" (2018.-2019.) / Hrvatska - Kina.

19. „Optimizirana sinteza i karakterizacija materijala na bazi $CeO_2$, obećavajućih katalizatora za oksidaciju HCl-a" (2018.-2019.) / MZO- DAAD.

**20. „Istraživanje utjecaja metalnih promotora rijetkih zemalja i stupnja uređenja na redoks svojstva sustava $CeO_2$ - $ZrO_2$" (2019.-2023.) HRZZ - Znanstvena suradnja.**

**21. „Istraživanje materijala na bazi $CeO_2$, obećavajućih katalizatora za oksidaciju HCl-a" (2019.-2020.) / Hrvatska - Mađarska.**

**22. „Visokoentropijski materijali - sinteza, karakterizacija i primjena" (2021.-2022.) / MZO - DAAD.**

**23. „The study of the effect of rare dopants on the redox properties of ceria-zirconia with application in CO and $CH_4$ oxidation" (2021.-2022.) / MZO – COGITO (France).**

**Suradnik na projektima:**

1. "Thin Films of Silicon Alloys Near the Transition Between Amorphous and Crystalline State" – suradnik od 07. 05. 2008./MZOŠ

2. "The Structure and the Properties of Special Nanomaterials Produced by the Novel

Methods"– suradnik (2007. - 2008.)./MZOŠ

3. Microstructural Investigations of the Potentially Applicable Novel Materials – suradnik (2002. – 2007.)./MZOŠ

4. "Structural Investigations of Nanocrystalline Materials" – suradnik (1998. – 2002.)./MZOŠ

5. Schwerpunktprogramm "Nanodrähte und Nanoröhren"- suradnik (2005.-2006.)/ German Research Foundation (DFG).

6. "Development of Concepts for the Size- and Shape-Controlled Synthesis of Metal Oxide Nanoparticles in Surfactant-Free Reaction Systems"- suradnik (2007.-2009.) / Swiss National Science Foundation.

7. "Nano - structural materials for thin film solar cells"- suradnik (2010. - 2011.) / Unity through Knowledge Fund (UKF).

8. Član COST akcije MP 1402 HERALD- Hooking together European research in Atomic Layer Deposition.

Konferencije i pozvana predavanja

**Pozvana predavanja:**

1. **Igor Djerdj**, Nonaqueous solution route toward various nanosized materials, Faculty of Chemistry, University of Belgrade, May 27, 2011, Belgrade, Serbia.

2. **Igor Djerdj**, From simplicity to complexity: the case of $VO_{1.52}(OH)_{0.77}$ nanorods, Seminar of the Department of Materials, ETH Zürich, May 7, 2008, Zürich, Switzerland.

3. **Igor Djerdj**, Nonaqueous synthesis and characterization of metal oxide nanoparticles, Seminar of the Department of Inorganic Chemistry, Fritz-Haber Institute der Max-Planck-Gesellschaft, July 11, 2006, Berlin, Germany.

4. **Igor Djerdj,** Nonaqueous route towards various functional nanosized compounds: An overview, Institute of Materials Jean Rouxel, University of Nantes, March, 2013, Nantes, France.

5. **Igor Djerdj**, Electron microscopy study of one-dimensional functional materials synthesized by a nonaqueous route, Microscopy Conference 2013, Regensburg, Germany.

6. **Igor Djerdj**, Novel Mixed Phase $SnO_2$ Nanorods Assembled with $SnO_2$ Nanocrystals for Enhancing Gas-Sensing Performance toward Isopropanol Gas, ISMANAM-2014, June, 2014, Cancun, Mexico.

7. **Igor Djerdj**, Hexagonal Rare Earth Orthoferrites Stabilized on the Nanometer Scale in Polymer-Templated Mesostructured Thin Films and Powders, IMMS-9, August, 2015, Brisbane, Australia.

8. **Igor Djerdj**, The application of metal oxide nanoparticles in gas sensing devices and lithium ion batteries, Cutting Edge 2015, 22. 09. 2015., University of Ljubljana, Faculty of Chemistry and Chemical Technology, Ljubljana, Slovenia.

9. **Igor Djerdj**, Selected functional materials: Structure-property relationship study, Riga Technical University, 14.-30. 06. 2016., Riga, Latvija (ERASMUS+ staff mobility exchange scheme).

10. **Igor Djerdj**, The application of metal oxide nanoparticles in gas sensing devices, University of Padova, 26. 02.–11. 03. 2017., Padova, Italia (ERASMUS+ staff mobility

exchange scheme).

11. **Igor Djerdj**, The application of metal oxide nanoparticles in gas sensing devices, Herald COST action, Serbian Academy of Science, Beograd, 28.-31. 08. 2017.

12. **Igor Djerdj**, The application of metal oxide nanoparticles in gas sensing devices and overview of current research activities, University of Szeged, Faculty of Science and Informatics, Szeged, Hungary, 13. 09. 2017.

13. **Igor Djerdj**, The application of metal oxide nanoparticles in gas sensing devices, Pure and Applied Chemistry International Conference 2018, 07.-09. 02. 2018. Hat Yai, Thailand.

14. **Igor Djerdj**, The application of metal oxide nanoparticles in gas sensing devices, Department of Materials Science and Engineering, Southern University of Science and Technology, 05. 05. 2018., Shenzhen, China.

15. **Igor Djerdj**, In-situ study of the oxygen-induced transformation of pyrochlore $Ce_2Zr_2O_{7+x}$ to the $\kappa$-$Ce_2Zr_2O_8$ phase, 14th International Conference on Fundamental and Applied Aspects of Physical Chemistry, Belgrade, Serbia, 24.-28. 09. 2018.

16. **Igor Djerdj**, In-situ study of the oxygen-induced transformation of pyrochlore $Ce_2Zr_2O_{7+x}$ to the $\kappa$-$Ce_2Zr_2O_8$ phase, an important feature for the application in three-way catalysts, 26th Conference of the Serbian crystallographic society, Silver Lake, June 27–28th 2019.

17. **Igor Djerdj**, The application of Ce-Zr-O compounds in HCl oxidation and in three-way catalysis, 13th Conference for Young Scientists in Ceramics, Novi Sad, Serbia, 13.-16. 10. 2019.

18. **Igor Djerdj**, Magnetic and electrical properties of selected nanocrystalline double and triple perovskites, X. Open Seminar Day of Materials Research Laboratory, University of Nova Gorica, Nova Gorica, Slovenia, 13. September 2021.

**Usmena izlaganja na međunarodnim znanstvenim skupovima:**

29. **Igor Djerdj**, „An aqueous sol-gel route towards selected quaternary metal oxides with single and double perovskite-type structure containing tellurium“, XXIII konferencija Srpskog kristalografskog društva, Andrevlje, Srbija, 9-11. 06. 2016.

28. **Igor Djerdj**, „An aqueous sol-gel route towards quaternary metal oxides with double perovskite-type structure: $Ba_3Fe_2TeO_9$, $Sr_3Fe_2TeO_9$, $Ba_2NiTeO_6$ and their magnetic properties study", 2016 E-MRS - Spring meeting, Lille, France, 02.-05. 05. 2016.

27. **Igor Djerdj**, „Acrobatics of N'-2-propylidene-4-hydroxybenzohydrazide crystals“, YUCOMAT 2014, Herceg Novi, Crna Gora, 31. 08. - 04. 09. 2015.

26. **Igor Djerdj**, „Hydrothermal growth of ZnO nanorods on Zn substrates and their application in degradation of azo dyes under ambient conditions“, Kongres hemičara i tehnologa BiH sa međunarodnim učešćem, Sarajevo, Bosna i Hercegovina, 10.-12. 10. 2014.

25. **Igor Djerdj**, „Novel mixed phase $SnO_2$ nanorods for enhancing gas-sensing performance towards isopropanol gas“, YUCOMAT 2014, Herceg Novi, Crna Gora, 01.-05. 09. 2014.

24. **Igor Djerdj**, „Crystal Structures Of Several Inorganic-Organic Hybrids Solved From Powder XRD", 23rd Congress and General Assembly of the International Union of Crystallography, Montreal, Canada, 05.-12. 08. 2014.

23. **Igor Djerdj**, „Interplay between the structural and magnetic probes in elucidation of the structure of novel 2D layered $V_4O_4(OH)_2(O_2CC_6H_4CO_2)_4 \cdot DMF$", 22. Croatian-Slovenian Crystallographic Meeting, Biograd, Croatia, 13.-15. 06. 2013.

22. **Igor Djerdj**, Davor Gracin, Krunoslav Juraić, Daniel Meljanac, Adam Marinović, and Davor Balzar, „Structural and optical study of inhomogeneous $SnO_2$ thin films", ISMANAM, Moskva, Rusija, 18.-22. 06. 2012.

21. **Igor Djerdj**, Krunoslav Juraić, and Davor Gracin, „Structural features of layered $SnO_2$ thin films", 21. Slovenian-Croatian Crystallographic Meeting, Pokljuka, Slovenia, 14.-16. 06. 2012.

20. **Igor Djerdj**, Srečo D. Škapin, Miran Čeh, Zvonko Jagličić, Damir Pajić, Bojan Kozlevčar, Bojan Orel, Zorica Crnjak Orel, Željko K. Jaćimović, "Solvothermal synthesis of new 2D layered nanocrystalline inorganic-organic hybrid $V_4O_4(OH)_2(O_2CC_6H_4CO_2)$•DMF compound and its magnetic properties", YUCOMAT 2011, Herceg Novi, Montenegro, 05.-09. 09. 2011.

19. **Igor Djerdj**, Davor Gracin, Krunoslav Juraić, Daniel Meljanac, Davor Balzar, "Structural analysis of inhomogeneous $SnO_x$ thin films" Denver X-ray conference, Colorado Springs, USA, 01.-05. 08. 2011.

18. **Igor Djerdj**, Srečo D. Škapin, Miran Čeh, Zvonko Jagličić, Damir Pajić, Bojan Kozlevčar, Bojan Orel, Zorica Crnjak Orel, Željko K. Jaćimović," Solvothermal synthesis of new 2D layered nanocrystalline inorganic-organic hybrid $V_4O_4(OH)_2(O_2CC_6H_4CO_2)$•DMF compound and its magnetic properties", The twentieth Croatian-Slovenian crystallographic meeting, Baška, Croatia, 15.-19. 06. 2011.

17. **Igor Djerdj**, Davor Gracin, Krunoslav Juraić, Daniel Meljanac, Ivančica Bogdanović-Radović, Galja Pletikapić,"Structural analysis of monolayered and bilayered $SnO_2$ thin films", EMRS-2011. Spring Meeting, Nice, France, 09.-13. 05. 2011.

16. **Igor Djerdj**, Davor Gracin, Krunoslav Juraić, Miran Čeh,"Structural properties of the thin-film solar-cells materials", 19. Slovenian-Croatian Crystallographic meeting, Strunjan, Slovenia, 16-20. 06. 2010.

15. **Igor Djerdj**, Minhua Cao, Radovan Černy, Zvonko Jagličić, Fabia Gozzo, Xavier Rocquefelte, Denis Arčon, Markus Niederberger, Nonaqueous route to a nanocrystalline metal-organic framework $VO(C_6H_5COO)_2$, EUROMAT 2009, Glasgow, United Kingdom, 07.-10. 09. 2009.

14. **Igor Djerdj**, Minhua Cao, Radovan Černy, Zvonko Jagličić, Fabia Gozzo, Xavier Rocquefelte, Denis Arčon, Markus Niederberger, Nonaqueous Routes to Vanadium-Oxygen based Compounds: Hollandite-Type $VO_{1.52}(OH)_{0.77}$ Nanorods and a Metal-Organic Framework $VO(C_6H_5COO)_2$, 2009 MRS Spring Meeting, San Francisco, 13.-17. 04. 2009.

13. **Igor Djerdj**, Denis Arčon, Markus Niederberger, Nonaqueous synthesis of $Nd(OH)_3$ nanoparticles, characterization, electronic structure and properties, HOT NANO TOPICS 2008, Portorož, Slovenia, 23-30. 05. 2008.

12. **Igor Djerdj**, Denis Sheptyakov, Fabia Gozzo, Denis Arčon, Reinhard Nesper, Markus Niederberger, Characterization and Properties of Novel Oxygen Contained Hollandite VO1.52(OH)0.77 Nanorods Synthesized by Nonaqueous Sol-Gel Route, SLONANO 2007, Ljubljana, Slovenia, 10-12. 10. 2007.

11. **Igor Djerdj**, Markus Niederberger, Nonaqueous synthesis of a new compound: vanadium oxide hydrate V7.2O16•4.2H2O, 234th ACS National Meetings & Expositions, Boston, SAD, 19-23. 08. 2007.

10. **Igor Djerdj**, Markus Niederberger, Jianhua Ba, Markus Antonietti, Dangsheng Su and Robert Schlögl, Solvothermal Synthesis of Lanthanum Hydroxide Nanobelts, 16th International Microscopy Congress, September 2006, Sapporo, Japan.

9. **I. Djerdj**, A. M. Tonejc, A. Tonejc, M. Bijelić, M. Buljan, U. V. Desnica, R. Kalish, TEM study of carbon nanophases grown in carbon-ion implanted quartz, 14th Croatian-Slovenian crystallographic meeting, June 2005, Vrsar, Croatia.

8. **I. Djerdj**, A. M. Tonejc, and A. Tonejc, Structural investigations of nanocrystalline $TiO_2$ samples, Electron Crystallography: Novel Approaches for Structure Determination of Nanosized Materials, June 2004, Erice, Italy.

7. **I. Djerdj**, A. M. Tonejc, A. Tonejc, and N. Radić, XRD analysis of tungsten thin films, 10th Joint Vacuum Conference, September 2004, Portorož, Slovenia.

6. **I. Djerdj**, A. M. Tonejc, and A. Tonejc, The calculation of the average grain size of nanocrystalline titania by means of electron microscopy and XRD,6th Multinational Congress on Microscopy-European Extension, June, 2003, Pula, Croatia.

5. **I. Djerdj**, A. M. Tonejc, and A. Tonejc, The Rietveld refinement of XRD data obtained on nanocrystalline $TiO_2$, 12th Croatian-Slovenian crystallographic meeting, June 2003, Plitvička jezera, Croatia.

4. **I. Djerdj**, A. M. Tonejc, A. Tonejc, and N. Radić, The comparison of various methods for extraction of size-strain data from XRD powder pattern of tungsten thin films, 11th Slovenian-Croatian crystallographic meeting, June 2002, Bohinj, Slovenia.

3. A. M. Tonejc, **I. Djerdj**, and A. Tonejc, Rietveld refinement of electron diffraction data obtained on nanocrystalline $TiO_2$, 10th Croatian-Slovenian crystallographic meeting, June 2001, Lovran, Croatia.

2. A. M. Tonejc, **I. Djerdj**, and A. Tonejc, Evidence from HRTEM image processing, XRD and EDS on nanocrystalline iron-doped Titanium oxide powders, 9th Slovenian- Croatian crystallographic meeting, June 2000, Gozd Martuljek, Slovenia.

1. A. M. Tonejc, **I. Djerdj**, M. Gotić, S. Musić, S. Popović, and A. Tonejc, XRD, TEM and HRTEM study of iron doped $TiO_2$, 8th Croatian-Slovenian Crystallographic meeting, Rovinj, Croatia, June 1999.

**Posterska izlaganja na međunarodnim znanstvenim skupovima:**

1. **I. Djerdj**, A. M. Tonejc, and A. Tonejc, Application of Rietveld method to XRD and SAED pattern of nanocrystalline $TiO_2$ samples, 19th Congress and General Assembly of the International Union of Crystallography, Geneva, Switzerland, August 2002.

2. **I. Djerdj**, A. M. Tonejc, M. Bijelić, M. Buljan, U. V. Desnica, C. Saguy, R. Kalish, Transmission electron microscopy study of different carbon nanophases produced by ion beam implantation, Proceedings of E-MRS 2005 Spring Meeting, Strasbourg, France, June 2005.

3. **Igor Djerdj**, Markus Niederberger, and Markus Antonietti, Synthesis and Characterization of nanocrystalline manganese oxide, Proceedings of E-MRS 2006

Spring Meeting, Nice, France, June 2006.

4. **Igor Djerdj**, Markus Niederberger, Jianhua Ba, and Markus Antonietti, Synthesis and characterization of nanocrystalline chromium and iron doped titania, Interfacial Engineering 2006, 20-21. 06. 2006., Stockholm, Sweden.

5. **Igor Djerdj**, Jianhua Ba, Jelena Buha, Georg Garnweitner and Markus Niederberger, Tailoring the morphology of lanthanum hydroxide nanostructures, Delegate manual of 5th international conference on inorganic materials, 23.-26. 09. 2006., Ljubljana, Slovenia.

6. **Igor Djerdj**, Markus Niederberger, and Markus Antonietti, Synthesis and characterization of nanocrystalline manganese oxide, Workshop on nanoanalysis, 09.-11. 07. 2006., Zűrich, Switzerland.

7. **Igor Djerdj**, Minhua Cao, Radovan Černy, Zvonko Jagličić, Fabia Gozzo, Markus Antonietti, Markus Niederberger, Nonaqueous approach to a metal-organic framework: a new vanadium-oxobenzoate as case study, EPDIC-11, 18.-22. 09. 2008., Warsaw, Poland.

8. **Igor Djerdj**, Gabriela Ambrožič, Zorica Crnjak Orel, Vanadium-based Hybrid Inorganic-Organic Nanocrystalline Materials, 17th International Symposium on Metastable, Amorphous and Nanostructured Materials (ISMANAM), 04.-09. 07. 2010., Zürich, Switzerland.

9. Danijela Bajić, Jelena Brdarić, Nikolina Filipović, Jasminka Popović, **Igor Djerdj**, "Novel hybrid inorganic-organic one-dimensional chain systems tailored with monocarboxylic acids", XXIII hrvatski skup kemičara i kemijskih inženjera, 21.-24. 04. 2013., Osijek, Croatia.

10. **Igor Djerdj**, "Long cycle life of $CoMn_2O_4$ lithium ion battery anodes with high crystallinity", Challenges in Chemical Renewable Energy, 08.-11. 09. 2015., Rio de Janeiro, Brazil.

11. **Igor Djerdj**, "Combustion synthesis of porous Pt-functionalized $SnO_2$ sheets for isopropanol gas detection with a significant enhancement in response", 12th International Conference on Materials Chemistry, 20.-23. 07. 2015., York, United Kingdom.

12. **Igor Djerdj**, Berislav Marković, Jasminka Popović, Tobias Weller, Zvonko Jagličić, Željko Skoko, Damir Pajić, Christian Suchomski, Pascal Voepel, Roland Marschall, Bernd M. Smarsly, „Aqueous sol-gel route towards selected quaternary metal oxides with single and double perovskite-type structure containing tellurium", YUCOMAT 2016, 05.-09. 09. 2016., Herceg Novi, Montenegro.

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17. Jelena Bijelić, Chenwei Li, Bernd Smarsly, Herbert Over, **Igor Djerdj** „Shape-Controlled Synthesis of $CeO_2$ Nanoparticles: Effects of Different Precursors on the Formation of Oxygen Vacancies", XXV konferencija Srpskog kristalografskog društva, Bajina Bašta, Serbia, 21.-23. 06. 2018.

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20. **Igor Djerdj**, Jelena Bijelić, Chenwei Li, Bernd Smarsly, Herbert Over „Shape-Controlled Synthesis of $CeO_2$ Nanoparticles: Effects of Different Precursors on the Formation of Oxygen Vacancies; Stability and Activity in the Catalyzed Oxidation Reaction", YUCOMAT 2018, 04.-08. 09. 2018., Herceg Novi, Montenegro.

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6. Journal of Alloys and Compounds
7. Journal of Physics and Chemistry of Solids
8. Physical Chemistry Chemical Physics
9. Journal of the American Chemical Society
10. Journal of Nanomaterials
11. Materials Research Bulletin
12. Journal of Materials Chemistry
13. Physica B
14. Dalton Transactions
15. Crystal Engineering Communications
16. Nanoscale
17. The Journal of Physical Chemistry
18. Langmuir
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20. Materials

**Članstvo u odborima za obranu doktorata:**

1. Thanveer Thajudheen, "Spectroscopic Investigation of oxygen vacancies in $CeO_2$", University of Nova Gorica, Nova Gorica, Slovenija, 14. 09. 2021.

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