



Curriculum Vitae

HRZZ Form

PERSONAL INFORMATION

Name and surname **Dijana Žilić**
 Academic title Ph.D. (Dr.)
 Year and institution of PhD obtained 2008, Faculty of Science-Department of Physics, University of Zagreb
 Address Ruđer Bošković Institute (RBI)
 Division of Physical Chemistry
 Laboratory for Magnetic Resonances
 Bijenička 54, 10000 Zagreb, Croatia
 Phone + 385 1 456 1111 local 1805
 Fax + 385 1 468 0245
 E-mail dzilic@irb.hr
 Personal web page <http://www.irb.hr/Ljudi/Dijana-Zilic>
 Citizenship Croatian
 Nationality Croatian
 Date and place of birth 26.01.1975. Konjic, Bosnia and Herzegovina

WORK EXPERIENCE¹ (CHRONOLOGICALLY*)

Date (from – until) 22.10.2019. -
 Institution Ruđer Bošković Institute
 Position Senior Research Associate
 Work field ESR/EPR spectroscopy, Solid state physics, Molecular magnetism, MOFs, Transition metal complexes

Date (from – until) 06.02.2013. - 21.10.2019.
 Institution Ruđer Bošković Institute
 Position Research Associate
 Work field ESR/EPR spectroscopy, Solid state physics, Molecular magnetism, Transition metal complexes

Date (from – until) 05.06.2002. - 05.02.2013.
 Institution Ruđer Bošković Institute
 Position Research assistant (Junior assistant, Assistant, Senior assistant)
 Work field ESR/EPR spectroscopy, Solid state physics, Molecule magnetism, Transition metal complexes

^{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 2002. - 2008.
 Place Zagreb
 Institution Faculty of Science, University of Zagreb
 Title of qualification awar. Ph.D., Physics, Solid state physics
 Title of the thesis "Surface magnetic field and energy transition dynamics in single-molecule magnets"
 Supervisor dr. B. Rakvin (RBI)

Date 1995. - 2002.
 Place Zagreb
 Institution Faculty of Science, University of Zagreb
 Title of qualification awar. B.Sc., Physics (dipl. ing. in Croatia)
 Title of the thesis "Superparamagnetic behaviour of Mn12 and Fe8 single-molecule magnets"
 Supervisors prof. dr. K. Zadro (Faculty of Science) and dr. B. Rakvin (RBI)

Date 1993. - 1995.
 Place Zagreb
 Institution High school
 Title of qualification awar. High School graduated

Date 1990. - 1992.
 Place Konjic (BiH)
 Institution High school
 Title of qualification awar. - (education was interrupted due to the war)

Date 1982. - 1990.
 Place Konjic (BiH)
 Institution Primary school
 Title of qualification awar. Primary school graduated

TRAINING
(CHRONOLOGICALLY)

Year 2017.
 Place Bucharest, Romania
 Institution COST CA15128: "Workshop WG2 and WG3"
 Subject and skills covered „Quantum spin science and technologies“

Year 2015.
 Place Belgrade, Serbia
 Institution COST CM1305: "Third scientific workshop"
 Subject and skills covered Spin states in transition metal compounds

Year 2014.
 Place Lužnica, near Zagreb, Croatia
 Institution The workshop "Dynamics in Soft Matter Probed by Advanced EPR Techniques" (organized by Alexander von Humboldt Foundation, Max Planck Gesellschaft and Ruđer Bošković Intitute)
 Subject and skills covered Advanced EPR Techniques

Year 2012
 Place Chemnitz, Germany
 Institution 5th Scientific "Toward Molecular Spintronics" Workshop (organized by DFG Research Unit 1154)
 Subject and skills covered Molecular Spintronics

Year 2011.
 Place Trogir, Croatia
 Institution The Second international workshop on "Recent advances in broad-band solid-state NMR of correlated electronic systems" (organized by Faculty of Science, University of Zagreb and SOLeNeMaR project (FP7 #229390))
 Subject and skills covered Solid-state NMR (Nuclear Magnetic Resonance)

Year 2008.
 Place St. Andrews, United Kingdom
 Institution 4th EF EPR Summer School, COST P15 Training School and SUSSP 64 (organized by the Universities of St Andrews and Dundee)
 Subject and skills covered EPR spectroscopy

Year 2007.
 Place Bonn, Germany
 Institution COST P15 Training School "Theoretical and Computational EPR Spectroscopy"
 Subject and skills covered Theoretical and Computational EPR Spectroscopy

Year 2006.
 Place Rovinj, Croatia
 Institution Ninth International Summer School on Biophysics (organized by the Ruđer Bošković Institute and the Croatian Biophysical Society)
 Subject and skills covered Biophysics

Year 2005.
 Place Wiesbaden, Germany
 Institution 3. European EPR Summer School and COST Training School (organized by the Technical University Darmstadt, the Max Planck Institute and the Mainz Goethe University Frankfurt and Center for Biomolecular Magnetic Resonance)
 Subject and skills covered EPR spectroscopy

LANGUAGES

MOTHER TONGUE **Croatian**

ENGLISH LANGUAGE

Speaking Good
 Writing Good
 Reading Good

OTHER FOREIGN LANGUAGES³

Language **German**
 Speaking Basic
 Writing Basic
 Reading Basic

RESEARCH AND OTHER PROJECTS

(CHRONOLOGICALLY; LEADER AND ASSOCIATES; FUNDING SOURCE)

Leader

2019.-2021. Croatian-German bilateral project (MZO-DAAD)

"Magneto-structural correlations in molecular magnetic complexes studied by electron spin resonance spectroscopy"

Principal Investigators: **Dijana Žilić** (RBI) and Yulia Krupskaya (Leibniz IFW-Dresden)

03.09.2012.- 02.09.2013. Postdoc project of Croatian Science Foundation: "Study of molecule magnets (polynuclear transition metal complexes) by HF-EPR spectroscopy" realized in a group of Vladislav Kataev (Leibniz IFW-Dresden)

Principal Investigator: **Dijana Žilić** (RBI)

2011. Financial support of the Foundation of the Croatian Academy of Sciences and Arts

"Single crystals of organic stable radicals as EPR probes at the surface of the single-molecule magnet Mn₁₂-acetate"

Principal Investigator: **Dijana Žilić** (RBI)

Associate

2018.-2022. Croatian Science Foundation project

"Elucidating the importance of spin-spin interactions as a tool for new approaches in ESR studies of materials"

Principal Investigator: Marina Ilakovac Kveder (RBI)

2021.-2022. Croatian-German bilateral project (MZO-DAAD)

"New generation of magnetic MOF composites based on controllable confinement of selected endofullerenes"

Principal Investigators: Krunoslav Užarević (RBI) and Alexey Popov (Leibniz IFW-Dresden)

2019.-2021. "Scientific collaboration" project of Croatian Science Foundation

"Mechanochemical and solvent-free strategies towards functional porous materials with advanced physico-chemical and catalytic properties"

Glavni istraživač: Krunoslav Užarević (IRB)

2015.-2018. Croatian Science Foundation project

"Influence of Magnetic Anisotropy on Quantum Spin Systems"

Principal Investigator: Mirta Herak (Institute of Physics, Croatia)

2014.-2018. Croatian Science Foundation project

"Low-temperature molecular dynamics of systems exhibiting lattice disorder probed by ESR"

Principal Investigator: Marina Ilakovac Kveder (RBI)

2016.-2019. NATO project

"Engineering silicon carbide for enhanced borders and ports security"

Principal Investigator: Ivana Capan (RBI)

2016.-2020. COST Action CA15128 (MC member)

"Molecular Spintronics (MOLSPIN)"

Principal Investigators: Eugenio Coronado (University of Valencia, Spain)

2014.-2018. COST Action CM1305 (MC member)

"Explicit Control Over Spin-states in Technology and Biochemistry (ECOSTBio)"

Principal Investigators: Marcel Swart (University of Girona, Spain)

2017.-2018. COGITO project

"Theoretical and experimental research of magnetic and multiferroic metals"

Principal Investigator: Mirta Herak (Institute of Physics, Croatia)

2011. Alexander von Humboldt research group linkage project

"The study of soft condensed matter by EPR: dynamics in glassy and crystalline matrices"

Principal Investigators: Marina Ilakovac Kveder (Ruđer Bošković Institute) and Wolfgang Lubitz (MPI für Bioanorganische Chemie, Mülheim an der Ruhr, Germany).

2007.-2013. Project of Ministry of Science, Education and Sports of the Republic of Croatia
"Molecular structure and dynamics in systems containing paramagnetic particles"
Principal Investigator: Boris Rakvin (RBI).

2005.-2010. Project COST Action P-15
"Advanced Paramagnetic Resonance Methods in Molecular Biophysics"
Principal Investigator: Boris Rakvin (RBI).

2002.-2006. Project of Ministry of Science, Education and Sports of the Republic of Croatia
"Electron spin resonance in systems with paramagnetic particles"
Principal Investigator: Boris Rakvin (RBI).

TEACHING

(CHRONOLOGICALLY; UNDERGRADUATE, GRADUATE, POSTGRADUATE STUDY PROGRAMMES)

2018./2019. -

Lecturer for the Doctoral study course "EPR spectroscopy", at Department of Physics, Faculty of Science, University of Zagreb.

2010./2011.

Laboratory Exercises in "Introductory Laboratory Exercises in Physics 2", Undergraduate Study of Physics, Department of Physics, Faculty of Science, University of Zagreb.

2002./2003.-2008./2009. (7 years)

Laboratory Exercises in "Physics and Biophysics" ("Medical physics", "Physics and biophysics for students of veterinary medicine"), Undergraduate Study, Faculty of Veterinary Medicine, University of Zagreb.

Maltar Strmečki, Nadica; Žilić, Dijana; Pavić Grego, Ana.

Laboratory Exercises in Physics and Biophysics (with Worksheets)
(Manualia Universitatis studiorum Zagrabiensis)
Zagreb, Element, 2014.

MENTORSHIP OF DEFENDED DOCTORAL AND MASTER DISSERTATIONS AND TRAINING OF YOUNG RESEARCHERS AND SCIENTISTS

(CHRONOLOGICALLY)

2017- Mentor of Senada Muratović at Doctoral study in Chemistry at Department of Chemistry, Faculty of Science, University of Zagreb.

26.2.2021. Mentor of Marta Šimunović (with prof. B. Prugovečki) at Diploma thesis at Department of Chemistry, Faculty of Science, University of Zagreb.

Mentorships of seminars for four Doctoral and Graduate students (D. Pajić, N. Novosel, M. Herak, I. Kovačević) at Department of Physics, Faculty of Science, University of Zagreb.

VISITS TO FOREIGN RESEARCH AND EDUCATION INSTITUTIONS

(CHRONOLOGICALLY; ONLY VISITS LONGER THAN 3 MONTHS)

03.09.2012.-02.09.2013. Postdoc at Leibniz IFW-Dresden, Germany in group of dr. V. Kataev.
Short visits:

19.-23.07.2021. Leibniz IFW-Dresden, Germany (bilateral project with dr. Y. Krupskaya).

01.-20.11.2020. Leibniz IFW-Dresden, Germany (bilateral project with dr. Y. Krupskaya).

11.-25.06.2019. Leibniz IFW-Dresden, Germany (bilateral project with dr. Y. Krupskaya).

15.-17.05.2019. Leibniz IFW-Dresden, Germany (bilateral project with dr. Y. Krupskaya).

15.08.-02.09.2016. Leibniz IFW-Dresden, Germany (HF-ESR, dr. V. Kataev).

AWARDS AND RECOGNITIONS

(CHRONOLOGICALLY)

The scholarship of "Croatian Scholarship Fund (CSF)" from USA.

The award for one of the three best student works at the conference PrimMath[2001] (*The First Scientific and Technical Conference Mathematica in Science, Technology and Education*) 2001., Zagreb.

ORGANIZATIONAL SKILLS AND COMPETENCES

(CHRONOLOGICALLY; ORGANIZATION OF HOME AND INTERNATIONAL SCIENCE EVENTS)

-2019. and 2021. Financial support of the Foundation of the Croatian Academy of Sciences and Arts for organization scientific meeting "Solid State Science & Research 2019" and "Solid State Science & Research 2021" (organized by RBI, Institute of Physics and Faculty of Science) given to organizers D. Žilić i K. Užarević.

-Member of local organizing committee of international „Solid State Science & Research 2019“ and „Solid State Science & Research 2021“ meeting (organized by RBI, Institute of Physics and Faculty of Science), Zagreb, Croatia, 27.-29. 6. 2019. and on-line, 10.-11. 6. 2021.

-Member of local organizing committee for workshop "Dynamics in Soft Matter Probed by Advanced EPR Techniques" (organized by Alexander von Humboldt Foundation, Max Planck Gesellschaft and Ruđer Bošković Institute), Lužnica, near Zagreb, Croatia, 5.-9. 5. 2014.

-Member of local organizing and scientific committee of „Solid State Science & Research“ meeting with international participations (organized by RBI, Institute of Physics and Faculty of Science), Zagreb, Croatia, 28.-30. 6. 2017.

MEMBERSHIP IN SCIENCE ORGANIZATIONS AND BODIES

(CHRONOLOGICALLY; HOME AND INTERNATIONAL ORGANIZATIONS AND BODIES)

Croatian Physical Society.

German Physical Society.

COMMISSIONS, COMMITTEES, BOARDS AND WORK GROUPS

(CHRONOLOGICALLY; HOME AND INTERNATIONAL)

2013.- Member in the Council of Physics at Ruđer Bošković Institute.

2005.-2007. Assistant representative in the Council of assistants at Ruđer Bošković Institute.

2005.-2007. Assistant representative in the Council Office of Physics at Ruđer Bošković Institute.

2003.-2007. Assistant representative in the Council Office of Division of Physical Chemistry at Ruđer Bošković Institute.

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

Until February 2022 (according to Web of Science Core Collection)

1. Garg, N., Goriya, Y., Manojveer, S., Muratović, S., Pajić, D., Cetina, M., Petreska, I., Krupskaya, Y., Kataev, V., Johnson, M., Wendt, O. & Žilić, D. (2022) A mononuclear iron(III) complex with unusual changes of color and magneto-structural properties with temperature: synthesis, structure, magnetization, multi-frequency ESR and DFT study. Dalton transactions, 51 (6), 2338-2345 doi:10.1039/D1DT03751J.
2. Memišević, M., Zahirović, A., Višnjevac, A., Osmanović, A., Žilić, D., Kralj, M., Muratović, S., Martin-Kleiner, I., Završnik, D. & Kahrović, E. (2021) Copper(II) Salicylideneimine Complexes

Revisited: From a Novel Derivative and Extended Characterization of Two Homologues to Interaction with BSA and Antiproliferative Activity. *Inorganica chimica acta*, 525, 120460, 9 doi:10.1016/j.ica.2021.120460.

3. Androš Dubraja, L., Žilić, D., Olujić, K., Pavić, L., Molčanov, K. & Pajić, D. (2021) Targeted synthesis of a CrIII–O–VV core oxo-bridged complex: spectroscopic, magnetic and electrical properties. *New journal of chemistry*, 45, 6336-6343 doi:10.1039/D1NJ00430A.
4. Vušak, D., Smrečki, N., Muratović, S., Žilić, D., Prugovečki, B. & Matković-Čalogović, D. (2021) Structural diversity in the coordination compounds of cobalt, nickel and copper with N-alkylglycinates: crystallographic and ESR study in the solid state. *RSC Advances*, 11, 23779-23790 doi:10.1039/D1RA04219J.
5. Martinez, V., Karadeniz, B., Biliškov, N., Lončarić, I., Muratović, S., Žilić, D., Avdoshenko, S., Roslova, M., Popov, A. & Užarević, K. (2020) Tunable Fulleretic Sodalite MOFs: Highly Efficient and Controllable Entrapment of C60 Fullerene via Mechanochemistry. *Chemistry of Materials*, 32 (24), 10628-10640 doi:10.1021/acs.chemmater.0c03796.
6. Muratović, S., Karadeniz, B., Stolar, T., Lukin, S., Halasz, I., Herak, M., Mali, G., Krupskaya, Y., Kataev, V., Žilić, D. & Užarević, K. (2020) Impact of dehydration and mechanical amorphization on the magnetic properties of Ni(II)-MOF-74. *Journal of Materials Chemistry C*, 8, 7132-7142 doi:10.1039/D0TC00844C.
7. Smokrović, K., Muratović, S., Karadeniz, B., Užarević, K., Žilić, D. & Đilović, I. (2020) Synthon Robustness and Structural Modularity of Copper(II) Two-Dimensional Coordination Polymers with Isomeric Amino Acids and 4,4'-Bipyridine. *Crystal growth & design*, 20 (4), 2415-2423 doi:10.1021/acs.cgd.9b01601.
8. Pantalon Juraj, N., Muratović, S., Perić, B., Šijaković Vujičić, N., Vianello, R., Žilić, D., Jagličić, Z. & Kirin, S. (2020) Structural variety of isopropyl-bis(2-picolyl)amine complexes with zinc(II) and copper(II). *Crystal growth & design*, 20 (4), 2440-2453 doi:10.1021/acs.cgd.9b01625.
9. Zahirović, A., Žilić, D., Kraljević Pavelić, S., Hukić, M., Muratović, S., Harej, A. & Kahrović, E. (2019) Type of complex-BSA binding forces affected by different coordination modes of alliin in novel water-soluble ruthenium complexes. *New journal of chemistry*, 43, 5791-5804 doi:10.1039/c9nj00826h.
10. Karadeniz, B., Žilić, D., Huskić, I., Germann, L., Fidelli, A., Muratović, S., Lončarić, I., Etter, M., Dinnebier, R., Barišić, D., Cindro, N., Islamoglu, T., Farha, O., Friščić, T. & Užarević, K. (2019) Controlling the Polymorphism and Topology Transformation in Porphyrinic Zirconium Metal–Organic Frameworks via Mechanochemistry. *Journal of the American Chemical Society*, 141 (49), 19214-19120 doi:10.1021/jacs.9b10251.
11. Damjanović, V., Kuzman, D., Vrdoljak, V., Muratović, S., Žilić, D., Stilinović, V. & Cindrić, M. (2019) Hydrothermal Reactions of [CoIII(C2O4)(NH3)4]+ and Polyoxomolybdates: Depolymerization of Polyoxomolybdates and in Situ Reduction of Cobalt. *Crystal growth & design*, 19 (11), 6763-6773 doi:10.1021/acs.cgd.9b01142.
12. Vušak, D., Smrečki, N., Prugovečki, B., Đilović, I., Kirasić, I., Žilić, D., Muratović, S. & Matković-Čalogović, D. (2019) Cobalt, nickel and copper complexes with glycinamide: structural insights and magnetic properties. *RSC Advances*, 9 (38), 21637-21645 doi:10.1039/C9RA03693H.
13. Androš Dubraja, L., Jurić, M., Popović, J., Pajić, D., Krupskaya, Y., Kataev, V., Büchner, B. & Žilić, D. (2018) Magneto-structural correlations in oxalate-bridged Sr(II)Cr(III) coordination polymers: structure, magnetization, X-band, and high-field ESR studies. *Dalton transactions*, 47 (11), 3992-4000 doi:10.1039/C7DT04655C.
14. Androš Dubraja, L., Molčanov, K., Žilić, D., Kojić-Prodić, B. & Wenger, E. (2017) Multifunctionality and size of the chloranilate ligand define the topology of transition metal coordination polymers. *New journal of chemistry*, 41 (14), 6785-6794 doi:10.1039/C7NJ01058C.
15. Tireli, M., Maračić, S., Lukin, S., Juribašić Kulcsar, M., Žilić, D., Cetina, M., Halasz, I., Raić-Malić, S. & Užarević, K. (2017) Solvent-free copper-catalyzed click chemistry for the synthesis of novel N-heterocyclic hybrids based on quinolone and 1, 2, 3-triazole. *Beilstein journal of organic chemistry*, 13 (13), 2352-2363 doi:10.3762/bjoc.13.232.

16. Stolar, T., Batzdorf, L., Lukin, S., Žilić, D., Mottillo, C., Friščić, T., Emmerling, F., Halasz, I. & Užarević, K. (2017) In Situ Monitoring of the Mechanochemical Synthesis of the Archetypal Metal–Organic Framework HKUST-1: Effect of Liquid Additives on the Milling Reactivity. *Inorganic chemistry*, 56 (11), 6599-6608 doi:10.1021/acs.inorgchem.7b00707.
17. Žilić, D., Maity, D., Cetina, M., Molčanov, K., Džolić, Z. & Herak, M. (2017) Magneto-Structural Characterization of Oxalamide Dihalo-Bridged Copper Dimers: Intra- and Interdimer Interactions Studied by Single Crystal ESR Spectroscopy. *ChemPhysChem*, 18 (17), 2397-2408 doi:10.1002/cphc.201700433.
18. Žilić, D., Molčanov, K., Jurić, M., Habjanič, J., Rakvin, B., Krupskaya, Y., Kataev, V., Wurmehl, S. & Büchner, B. (2017) 3D Oxalate-Based Coordination Polymers: Relationship between Structure, Magnetism and Color, studied by High-Field ESR Spectroscopy. *Polyhedron*, 126, 120-126 doi:10.1016/j.poly.2017.01.009.
19. Jurić, M., Molčanov, K., Žilić, D. & Kojić-Prodić, B. (2016) From mononuclear to linear one-dimensional coordination species of copper(II)–chloranilate: design and characterization. *RSC Advances*, 6, 62785-62796 doi:10.1039/C6RA13809H.
20. Herak, M., Žilić, D., Matković Čalogović, D. & Berger, H. (2015) Torque magnetometry study of magnetically ordered state and spin reorientation in quasi-1D $S = 1/2$ Heisenberg antiferromagnet CuSb_2O_6 . *Physical Review B - Condensed Matter and Materials Physics*, 91, 174436-1 doi:10.1103/PhysRevB.91.174436.
21. Jurić, M., Pajić, D., Žilić, D., Rakvin, B., Molčanov, K. & Popović, J. (2015) Magnetic order in a novel 3D oxalate-based coordination polymer $\{[\text{Cu}(\text{bpy})_3][\text{Mn}_2(\text{C}_2\text{O}_4)_3] \cdot \text{H}_2\text{O}\}_n$. *Dalton transactions*, 44, 20626-20635 doi:10.1039/c5dt02933c.
22. Jurić, M., Pajić, D., Žilić, D., Rakvin, B., Milić, D. & Planinić, P. (2015) Synthesis, crystal structures and magnetic properties of the oxalate-bridged single CuIICuII and cocrystallized CuIIZnII systems. Three species (CuCu , CuZn , ZnZn) in the crystalline lattice. *Polyhedron*, 98, 26-34 doi:10.1016/j.poly.2015.05.034.
23. Žilić, D., Androš, L., Krupskaya, Y., Kataev, V. & Büchner, B. (2015) Magnetic anisotropy of Cr(III) ions in polymeric oxalate complexes as revealed by HF-ESR spectroscopy. *Applied magnetic resonance*, 46 (3), 309-321 doi:10.1007/s00723-014-0630-7.
24. Žilić, D., Rakvin, B., Milić, D., Pajić, D., Đilović, I., Cametti, M. & Džolić, Z. (2014) Crystal structures and magnetic properties of a set of dihalo-bridged oxalamidato copper(II) dimers. *Dalton transactions*, 43 (31), 11877-11887 doi:10.1039/C4DT00925H.
25. Androš, L., Jurić, M., Popović, J., Pajić, D., Zadro, K., Molčanov, K., Žilić, D. & Planinić, P. (2014) 1D Heterometallic Oxalate Compounds as Precursors for Mixed Ca–Cr Oxides – Synthesis, Structures, and Magnetic Studies. *European journal of inorganic chemistry*, (33), 5703-5713 doi:10.1002/ejic.201402644.
26. Herak, M., Grubišić Čabo, A., Žilić, D., Rakvin, B., Salamon, K., Milat, O. & Berger, H. (2014) Magnetic anisotropy of spin tetramer system SeCuO_3 studied by torque magnetometry and ESR spectroscopy. *Physical Review B - Condensed Matter and Materials Physics*, 89 (18), 184411-1 doi:10.1103/PhysRevB.89.184411.
27. Žilić, D., Rakvin, B. & Dalal, N. (2011) Study of the local field distribution on a single-molecule magnet by a single paramagnetic crystal; a DPPH crystal on the surface of an Mn^{12} -acetate crystal. *Journal of applied physics*, 110, 093909-1 doi:10.1063/1.3658218.
28. Molčanov, K., Kojić-Prodić, B., Babić, D., Žilić, D. & Rakvin, B. (2011) Stabilisation of tetrabromo- and tetrachlorosemiquinone (bromanil and chloranil) anion radicals in crystals. *Crystengcomm*, 13 (16), 5170-5178 doi:10.1039/c1ce05513e.
29. Žilić, D., Pajić, D., Jurić, M., Molčanov, K., Rakvin, B., Planinić, P. & Zadro, K. (2010) Single crystals of DPPH grown from diethyl ether and carbon disulfide solutions – Crystal structures, IR, EPR and magnetization studies. *Journal of magnetic resonance (San Diego, Calif.)*, 207 (1), 34-41 doi:10.1016/j.jmr.2010.08.005.
30. Androš, L., Jurić, M., Planinić, P., Žilić, D., Rakvin, B. & Molčanov, K. (2010) New mononuclear oxalate complexes of copper(II) with 2D and 3D architectures: Synthesis, crystal structures and spectroscopic characterization. *Polyhedron*, 29 (4), 1291-1298

doi:10.1016/j.poly.2010.01.005.

31. Jurić, M., Planinić, P., Žilić, D., Rakvin, B., Prugovečki, B. & Matković-Čalogović, D. (2009) A new heterometallic (N₂⁺ and Cr³⁺) complex - Crystal structure and spectroscopic characterization. *Journal of molecular structure*, 924 (SI), 73-80
doi:10.1016/j.molstruc.2008.10.052.
32. Novosel, N., Žilić, D., Pajić, D., Jurić, M., Perić, B., Zadro, K., Rakvin, B. & Planinić, P. (2008) EPR and magnetization studies on single crystals of a heterometallic (Cu^{II} and Cr^{III}) complex: zero-field splitting determination. *Solid state sciences*, 10 (10), 1387-1394
doi:10.1016/j.solidstatesciences.2008.01.021.
33. Rakvin, B., Žilić, D., Dalal Naresh S., Harter, A. & Sanakis, Y. (2006) Low-field EPR Studies of Levels near the Top of the Barrier in Mn¹²-Acetate Reveal a New Magnetization Relaxation Pathway. *Solid State Communications*, 139, 51-56.
34. Rakvin, B., Žilić, D. & Dalal, N. (2005) Spin-echo EPR spin-probe measurement of the microsecond-range magnetic field fluctuations near the surface of crystals of the nanomagnet Mn¹²-Ac. *Solid State Communications*, 136, 518-522.
35. Rakvin, B., Žilić, D., Dalal Naresh, S., North, J., Cevc, P., Arčon, D. & Zadro, K. (2004) An EPR method for probing surface magnetic fields, dipolar distances, and magnetization fluctuations in single molecule magnets. *Spectrochimica Acta Part A*, 60, 1241-1245.
36. Rakvin, B., Žilić, D., North, J. & Dalal, N. (2003) Probing magnetic fields on crystals of the nanomagnet Mn₁₂-acetate by electron paramagnetic resonance. *Journal of Magnetic Resonance*, 165, 260-264.

OTHER RESEARCH ACTIVITIES

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

The Book of Abstracts "Dynamics in Soft Matter Probed by Advanced EPR Techniques" / Žilić, Dijana; Ilakovac Kveder, Marina (editors). Zagreb, Ruđer Bošković Institute, 2014.

Reviewing Editor for "Experimental Results".

Reviewer for Croatian Science Foundation and for journals "Materials Horizons", "Nanoscale", "Nanoscale Advances", "Scientific Reports", Polyhedron, "Molecules", "Molecular Crystals and Liquid Crystals", "Acta Physica Polonica", "Nanoscale Advances", "Journal of the American Ceramic Society".

COMPUTER SKILLS

Web administrator of Division of Physical Chemistry and Laboratory for Magnetic Resonances. Windows, Linux, MS Office, Mathematica, Matlab, EasySpin, Bruker XSophe, Bruker MoSophe, Origin, HTML, Latex...

OTHER IMPORTANT SKILLS AND COMPETENCES

Lectures:

Žilić, Dijana; Maity, Debdeep; Cetina, Mario; Molčanov, Krešimir; Džolić, Zoran; Herak, Mirta. Magneto-Structural Study of Dihalo-Bridged Copper Dimers: Intra- and Interdimer Interactions as Revealed by Single-Crystal ESR Spectroscopy
"Joint meeting of the DPG and EPS Condensed Matter Divisions", Berlin, Germany, 2018.

Žilić, Dijana.

Magnetic properties of transition metal complexes and organic radicals studied by ESR spectroscopy

"C-MAC Euroschool in Material Science 2017: Physical properties I – electrons, phonons and interactions in complex systems, Split, Hrvatska, 2017. (invited)

Žilić, Dijana; Užarević, Krunoslav; Friščić, Tomislav; Dragović, Jure; Pajić, Damir; Krupskaya, Yulia; Kataev, Vladislav

Magnetic properties of monometallic and bimetallic MOF-74 compounds studied by high-field ESR spectroscopy

"Solid-State Science & Research 2017" Zagreb, Hrvatska, 2017.

Žilić, Dijana.

Magnetic properties of transition metal complexes and organic radicals studied by ESR spectroscopy

"Third scientific workshop" in COST Action CM1305, Belgrade, Serbia, 2015.

Žilić, Dijana; Androš, Lidija; Krupskaya, Yulia; Kataev, Vladislav; Buechner, Bernd.

HF-ESR study of Cr(III) polymeric oxalate complexes

Workshop "*Dynamics in Soft Matter Probed by Advanced EPR Techniques*", Lužnica, near Zagreb, Croatia, 2014.

Žilić, Dijana.

Istraživanje kompleksa prijelaznih metala EPR spektroskopijom u jakim magnetskim poljima

"8. znanstveni sastanak Hrvatskog fizikalnog društva", Primošten, Croatia, 2013.

Žilić, Dijana.

Magnetic properties of transition metal complexes as revealed by HF-ESR

"*Workshop on characterization of semiconductor nanostructures; the role of defects*", Zagreb, Croatia, 2013.

Žilić, Dijana.

Study of molecular magnets by X-band EPR spectroscopy

Leibniz IFW-Dresden, Dresden, Germany, 2012.

Žilić, Dijana.

Perkolacijsko nakupljanje

"*The First Scientific and Technical Conference Mathematica in Science, Technology and Education PrimMath[2001]*", Zagreb, Croatia, 2001.

Žilić, Dijana.

Percolation

"International Conference for Physics Students", Zadar, Croatia, 2000.

Meetings (personal participation):

1. Solid-State Science & Research 2021, 10-11 06 2021, on-line (poster)
2. Solid-State Science & Research 2019, 27-29 06 2019, Zagreb, Croatia (poster)
3. 2nd European Conference on Molecular Spintronics (ECMols2018), 21-24 10 2018, Peniscola, Spain (poster)
4. Joint meeting of the DPG and EPS Condensed Matter Divisions, 11-16 04 2018, Berlin, Germany (oral)
5. C-MAC Euroschool in Material Science 2017, 10-15 09 2017, Spit, Croatia (invited lecture)
6. Solid-State Science & Research 2017, 28-30 06 2017, Zagreb, Croatia (oral)
7. EUROMAR, 03-07 07 2016, Aarhus, Denmark (poster)
8. "Third scientific workshop" in COST Action CM1305, 24-25 08 2015, Belgrade, Serbia (oral)

9. Workshop "Dynamics in Soft Matter Probed by Advanced EPR Techniques", 05-09 05 2014, Lužnica, near Zagreb, Croatia (oral)
10. Workshop on characterization of semiconductor nanostructures; the role of defects", 02-04 12 2013 Zagreb, Croatia (oral)
11. Osmi znanstveni sastanak Hrvatskoga fizikalnog društva , 06-08 10 2013, Primošten, Croatia (oral)
12. Deutsche Physikalische Gesellschaft (DPG) Spring Meeting, 10-15 03 2013, Regensburg, Germany (poster)
13. Vth International Conference on Molecular Materials (MOLMAT 2012), 03-06 07 2012, Barcelona, Spain (poster)
14. 3rd International Symposium on Molecular Materials-MOLMAT 2008, 08-11 07 2008, Toulouse, France (poster)
15. Peti znanstveni sastanak Hrvatskoga fizikalnog društva , 05-08 10 2007, Primošten, Croatia (poster)
16. Gordon Research Conference: Magnetic Nanostructures, 03-08 09 2006, Oxford, United Kingdom (poster)
17. V International Conference on Science, Art and Culture: "On the present Status of Quantum Mechanics", 07-09 09 2005, Losinj, Croatia
18. Conference on Single Molecule Magnets and Hybrid Magnetic Nanostructures, 27 06-01 07 2005, Trieste, Italy (poster)
19. IV International Conference on Science, Art and Culture: "Nanoscience and Nanotechnologies", 06-10 09 2004, Losinj, Croatia
20. 20th General Conference Condensed Matter Division EPS, 19-23 07 2004, Prague, Czech Republic (poster)
21. 4. znanstveni sastanak Hrvatskog fizikalnog društva, 13-15 11 2003, Zagreb, Croatia (poster)
22. 2. znanstveno-stručni skup Programski sustav Mathematica u znanosti, tehnologiji i obrazovanju PrimMath(2003), 25-26 09 2003, Zagreb, Croatia
23. 13th International symposium "Spectroscopy in theory and practice", 27-30 08 2003, Nova Gorica, Slovenia (poster)
24. znanstveno-stručni skup Programski sustav Mathematica u znanosti, tehnologiji i obrazovanju PrimMath(2001), 27-28 09 2001, Zagreb, Croatia (oral)
25. International Conference for Physics Students, 04-11 08 2000, Zadar, Croatia (oral)

Activity of science promotion and popularity

- Participation (few years) in organisation of RBI Open days
- Participation on national television show (HRT "Trenutak spoznaje") in September 2010. with the topic about unusual properties of water molecule.

ADDITIONAL INFORMATION AND NOTES