## Pavle V. Radovanovic

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### EDUCATION

Ph.D., Dual Degree in Chemistry and Nanotechnology, University of Washington, Seattle, 2004
M.S., Chemistry, Georgetown University, 1999
Dipl. Chem., University of Novi Sad, Serbia, 1996

### EMPLOYMENT

2017-date: Professor, Department of Chemistry, University of Waterloo
2012-2017: Associate Professor, Department of Chemistry, University of Waterloo
2006-2012: Assistant Professor, Department of Chemistry, University of Waterloo
2004-2006: Postdoctoral Fellow, Department of Chemistry and Chemical Biology, Harvard University

### SELECTED AWARDS AND HONORS (total of 25)

| | |
|---|---|
| 2021 | IAAM Medal, International Association of Advanced Materials (IAAM) |
| 2021 | Waterloo Institute for Nanotechnology Research Leader Award |
| 2020 | Discovery Accelerator Supplement Award, Natural Sciences and Engineering Research Council of Canada |
| 2019 | Waterloo Institute for Nanotechnology Research Leader Award |
| 2019 | Keith Laidler Award, Canadian Society for Chemistry (for outstanding early-career contributions to physical chemistry in Canada) |
| 2018 | Top 1% Reviewer for Chemistry of Materials, American Chemical Society |
| 2018 | Invited Visiting Professor, University of California, Berkeley |
| 2015 | YoungChem Lectureship, International Congress organized by the Chemical Scientific Society Flogistone (the largest chemistry student organization in Europe), Krakow, Poland |
| 2015 | *Chemistry of Materials* Reviewer Award, Chemistry of Materials Editorial Board, American Chemical Society |
| 2014 | Canadian National Committee for the International Union of Pure and Applied Chemistry (CNC-IUPAC) Award |
| 2013 | Invited Article for the Journal of Materials Chemistry **2014 Emerging Investigators Themed Issue** (selected young investigators "with potential to influence future directions in materials chemistry") |
| 2013-2017 | Canada Research Chair, Natural Sciences and Engineering Research Council of Canada (renewed) |

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| 2012 | Mobility Award, Office of Science and Technology, French Ministry of Foreign Affairs and Embassy of France in Canada |
| 2012 | Idea to Innovation Award, Natural Sciences and Engineering Research Council of Canada |
| 2011-2016 | Early Researcher Award, Ontario Ministry of Research and Innovation |
| 2008-2012 | Canada Research Chair, Natural Sciences and Engineering Research Council of Canada |
| 2003-2004 | David M. Ritter Fellowship for Excellence in Graduate Research, Department of Chemistry, University of Washington |
| 2003 | Silver Award, Materials Research Society |
| 2003 | Sigma Xi Scientific Society Graduate Research Award |
| 2000-2003 | NSF-IGERT Fellowship, National Science Foundation and Center for Nanotechnology at the University of Washington |

## RESEARCH AND SCHOLARSHIP

### Publications

**1.** Kenny-Wilby, A.; Jaics, G.; Zhang, C.; Yin, P.; Radovanovic, P. V.; "Revisiting Plasmonic Properties of Complex Semiconductor Nanocrystals Using Magnetic Circular Dichroism Spectroscopy: A Cautionary Tale" **2022**, submitted.

**2.** Yin, P.; Chen, S.; Radovanovic, P. V. "Properties of Free Charge Carriers Govern Exciton Polarization in Plasmonic Semiconductor Nanocrystals" *J. Phys. Chem. Lett.* **2022**, *13*, 5545-5552.

**3.** Rosales-Solano, H.; Galievsky, V.; Murtada, K.; Radovanovic, P. V.; Pawliszyn, J. "Profiling of Unsaturated Lipids by Raman Spectroscopy Directly on Solid State Microextraction Probes" *Anal. Chem.* **2022**, *94*, 606-611.

**4.** Ghobadifard, M.; Radovanovic, P. V.; Mohebbi, S. "Novel $CoFe_2O_4/CuBi_2O_4$ Heterojunction p–n Semiconductor as Visible-Light-Driven Nanophotocatalyst for C (OH)–H Bond Activation" *Appl. Organomet. Chem.* **2022**, 36, e6612.

**5.** Nguyen, K.; Radovanovic, P. V. "Defects and Impurities in Colloidal $Ga_2O_3$ Nanocrystals: New Opportunities for Photonics and Lighting" *Can. J. Chem.* **2022**, *100*, 1-8. **Invited *Review* article.**

**6.** Zhang, C.; Yin, P.; Lu, W.; Galievsky, V.; Radovanovic, P. V. "On the Origin of $d^0$ Magnetism in Transparent Metal Oxide Nanocrystals" *J. Phys. Chem. C* **2021**, *125*, 27714–27722.

**7.** Ghobadifard, M.; Safaei, E.; Radovanovic, P. V.; Mohebbi, S. "A Porphyrin-Conjugated $TiO_2/CoFe_2O_4$ Nanostructure Photocatalyst for the Selective Production of Aldehydes under Visible Light" *New. J. Chem.* **2021**, *45*, 8032-8044.

**8.** Yin, P.; Lu, W.; Radovanovic P. V. "Magnetoplasmon Resonances in Semiconductor Nanocrystals: Potential for a New Information Technology Platform", *ChemSusChem* **2020**, *13*, 4885-4893. **Editor-in-Chief-invited *Concept* article.**

**9.** Stanish, P. C.; Radovanovic, P. V. "Extending Afterglow Emission of $Ga_2O_3$ Nanocrystals by $Dy^{3+}$ Dopant-Induced Carrier Trapping: Toward Design of Persistent Colloidal Nanophosphors" *Chem. Mater.* **2020**, *32*, 7516-7523.

**10.** Zhang, C.; Yin, P.; Radovanovic, P. V. "Manipulating Plasmonic Properties of Sb-Doped $SnO_2$ Nanocrystals by Controlling Dopant Oxidation State via Synthesis Method and Processing Conditions" *ESC Transactions* **2020**, *98*, 77-86. **Invited article.**

**11.** Ghobadifard, M.; Mohebbi, S.; Radovanovic, P. V. "Selective Oxidation of Alcohols by Using

$CoFe_2O_4/Ag_2MoO_4$ as a Visible-Light-Driven Heterogeneous Photocatalyst" *New. J. Chem.* **2020**, *44*, 2858-2867.
**12.** Yin, P.; Tan, Y.; Ward, M. J.; Hegde, M.; Radovanovic, P. V. "Effect of Dopant Activation and Plasmon Damping on Carrier Polarization in $In_2O_3$ Nanocrystals" *J. Phys. Chem. C* **2019**, *123*, 29829-29837.
**13.** Yin, P.; Garnet, N. S.; Hegde, M.; Tan, Y.; Radovanovic, P. V. "Faceting-Controlled Zeeman Splitting in Plasmonic $TiO_2$ Nanocrystals" *Nano Lett*, **2019**, 19, 6695-6702.
**14.** Stanish, P. C.; Siu, H.; Radovanovic, P. V. "Inorganic Phosphors for Teaching a Holistic Approach to Functional Materials Investigation: From Synthesis and Characterization to Applications of Thermo- and Mechanoluminescence" *J. Chem. Educ.*, **2019**, 96, 1008-1014.
**15.** Ghodsi, V.; Radovanovic, P. V. "Synergistic Effect of the Electronic Structure and Defect Formation Leads to High Photocatalytic Efficiency of Gallium Tin Oxide Nanocrystals" *J. Phys. Chem. C* **2019**, *123*, 433-442.
**16.** Yin, P.; Hegde, M.; Tan, Y.; Chen, S.; Garnet, N.; Radovanovic, P. V. "Controlling the Mechanism of Excitonic Splitting in $In_2O_3$ Nanocrystals by Carrier Delocalization" *ACS Nano* **2018**, *12*, 11211-11218.
**17.** Jin, S.; Lu, W.; Stanish, P. C.; Radovanovic, P. V. "Compositional Control of the Photocatalytic Activity of $Ga_2O_3$ Nanocrystals Enabled by Defect-Induced Carrier Trapping" *Chem. Phys. Lett.* **2018**, 706, 509-514.
**18.** Yin, P.; Tan, Y.; Fang, H.; Radovanovic, P. V. "Plasmon-Induced Carrier Polarization in Semiconductor Nanocrystals", *Nat. Nanotech.* **2018**, *13*, 463–467.
**19.** Ghodsi, V; Radovanovic, P. V. "Turning Weakly Luminescent $SnO_2$ Nanocrystals into Tunable and Efficient Light Emitters by Aliovalent Alloying" *Chem. Mater.* **2018**, *30*, 3578–3587.
**20.** Wang, Y.; Hegde, M.; Chen, S.; Yin, P.; Radovanovic, P. V. "Control of the Spontaneous Formation of Oxide Overlayers on GaP Nanowires Grown by Chemical Vapor Deposition", *AIMS Mater. Sci.* **2018**, *5*, 105-115. Invited article for the *Topical Section of Crystalline Materials*.
**21.** Fernandes, B.; Stanish, P. C.; Miskovic, Z. L.; Radovanovic, P. V. "Photoluminescence Decay Dynamics in γ-$Ga_2O_3$ Nanocrystals: the Role of Exclusion Distance at Short Time Scales" *Chem. Phys. Lett.* **2017**, *684*, 135-140.
**22.** Fang, H.; Hegde, M.; Yin, P.; Radovanovic, P. V. "Tuning Plasmon Resonance of $In_2O_3$ Nanocrystals throughout the Mid-Infrared Region by Competition between Electron Activation and Trapping" *Chem. Mater.* **2017**, *29*, 4970–4979.
**23.** Ghodsi, V.; Jin, S.; Byers, J. C.; Pan, Y.; Radovanovic, P. V. "Anomalous Photocatalytic Activity of Nanocrystalline γ-Phase $Ga_2O_3$ Enabled by Long-Lived Defect Trap States" *J. Phys. Chem. C* **2017**, *121*, 9433-9441.
**24.** Garnet, N. S.; Ghodsi, V.; Hutfluss, L. N.; Yin, P.; Hegde, M.; Radovanovic, Pavle V. "Probing the Role of Dopant Oxidation State in the Magnetism of Diluted Magnetic Oxides Using Fe-Doped $In_2O_3$ and $SnO_2$ Nanocrystals" *J. Phys. Chem. C*, **2017**, 121, 1918-1927.
**25.** Stanish, P. C.; Radovanovic, P. V. "Surface-Enabled Energy Transfer in $Ga_2O_3$-CdSe/CdS Nanocrystal Composite Films: Tunable All-Inorganic Rare Earth Element-Free White-Emitting Phosphor" *J. Phys. Chem. C*, **2016**, *120*, 19566-19573.
**26.** Ghodsi, V.; Layek, A.; Yildirim, B.; Hegde, M.; Radovanovic, P. V. "Native Defects Determine Phase-Dependent Photoluminescence Behavior of $Eu^{2+}$ and $Eu^{3+}$ in $In_2O_3$ Nanocrystals" *Chem. Comm.*, **2016**, *52*, 4353-4356.
**27.** Stanish, P. C.; Radovanovic, P. V. "Energy Transfer between Conjugated Colloidal $Ga_2O_3$ and CdSe/CdS Core/Shell Nanocrystals for White Light Emitting Applications" *Nanomaterials*, **2016**, *6*, 32. **Invited *Feature* article.**

**28.** Layek, A.; Yildirim, B.; Ghodsi, V.; Hutfluss, L. N.; Hegde, M.; Wang, T.; Radovanovic, P. V. "Dual Europium Luminescence Centers in Colloidal $Ga_2O_3$ Nanocrystals: Controlled in Situ Reduction of Eu(III) and Stabilization of Eu(II)" *Chem. Mater.*, **2015**, *27*, 6030-6037.
**29.** Hegde, M.; Hosein, I. D.; Radovanovic, P. V. "Molecular Origin of Valence Band Anisotropy in Single β-$Ga_2O_3$ Nanowires Investigated by Polarized X-ray Absorption Imaging" *J. Phys. Chem. C*, **2015**, *119*, 17450-17457.
**30.** Layek, A.; Stanish, P. C.; Chirmanov, V.; Radovanovic, P. V. "Hybrid ZnO-Based Nanoconjugate for Efficient and Sustainable White Light Generation" *Chem. Mater.*, **2015**, *27*, 1021-1030.
**31.** Chirmanov, V.; Stanish, P. C.; Layek, A.; Radovanovic, P. V. "Distance-Dependent Energy Transfer between $Ga_2O_3$ Nanocrystal Defect States and Conjugated Organic Fluorophores in Hybrid White Light-Emitting Nanophosphors" *J. Phys. Chem. C*, **2015**, *119*, 5687-5696.
**32.** Hutfluss, L. N.; Radovanovic, P. V. "Controlling the Mechanism of Phase Transformation of Colloidal $In_2O_3$ Nanocrystals" *J. Am. Chem. Soc.*, **2015**, *137*, 1101-1108.
**33.** Sun, X.; Radovanovic, P. V.; Cui, B. "Advances in Spinel $Li_4Ti_5O_{12}$ Anode Material for Lithium-Ion Batteries" *New J. Chem.*, **2015**, *39*, 38-63.
**34.** Farvid, S. S.; Sabergharesou, T.; Hutfluss, L. N.; Hegde, M.; Prouzet, E.; Radovanovic, P. V. "Evidence of Charge-Transfer Ferromagnetism in Transparent Diluted Magnetic Oxide Nanocrystals: Switching the Mechanism of Magnetic Interactions" *J. Am. Chem. Soc.*, **2014**, *136*, 7669−7679.
**35.** Sun, X.; Hedge, M.; Wang, J.; Zhang, Y.; Liao, J.; Radovanovic, P. V.; Cui, B. "Structural Analysis and Electrochemical Studies of Carbon Coated $Li_4Ti_5O_{12}$ Particles Used as Anode for Lithium Ion Battery" *ESC Transactions*, **2014**, *58*, 79-88.
**36.** Hosein, I. D.; Hegde, M.; Radovanovic, P. V. "Morphology and Faceting of One-Dimensional Gallium Oxide Nanostructures" *J. Cryst. Growth*, **2014**, *396*, 24-32.
**37.** Sun, X.; Hegde, M.; Wang, J.; Zhang, Y.; Radovanovic, P. V.; Cui, B. "Structure and Electrochemical Properties of Spinel $Li_4Ti_5O_{12}$ Nanocomposites as Anode for Lithium-Ion Battery" *Int. J. Electrochem. Sci.*, **2014**, *9*, 1583-1596.
**38.** Wang, T.; Layek, A.; Radovanovic, P. V. "The Correlation between Native Defects and Dopants in Colloidal Lanthanide-Doped $Ga_2O_3$ Nanocrystals: A Path to Enhancing Functionality and Controlling Optical Properties" *J. Mater. Chem. C*, **2014**, *2*, 3212-3222. **Invited paper for 2014 Emerging Investigators Themed Issue**.
**39.** Wang, T.; Chirmanov, V.; Chiu, W. H. M; Radovanovic, P. V. "Generating Tunable White Light by Resonance Energy Transfer in Transparent Dye-Conjugated Metal Oxide Nanocrystals" *J. Am. Chem. Soc.*, **2013**, *135*, 14520-14523.
**40.** Hegde, M., Hosein, I. D., Radovanovic, P. V. "Introducing and Manipulating Magnetic Dopant Exchange Interactions in III-V Semiconductor Nanowires" *SPIE*, **2013**, *8813*, 8813-97. Invited paper.
**41.** Sabergharesou, T.; Wang, T.; Radovanovic, P. V. "Electronic Structure and Magnetic Properties of sub-3 nm Diameter Mn-Doped $SnO_2$ Nanocrystals and Nanowires" *Appl. Phys. Lett.* **2013**, *103*, 012401.
**42.** Sun, X.; Bai, X.; Wang, Y.; Hegde, M.; Hosein, I. D.; Radovanovic, P. V.; Guo, Y. G.; Cui, B. "Comparison of structural analysis and electrochemical studies of C-$Li_4Ti_5O_{12}$ and CNT-$Li_4Ti_5O_{12}$ nanocomposites particles used as anode for lithium ion battery" *MRS Proc.*, **2013**, *1541*, mrss13-1541-f09-01.
**43.** Radovanovic, P. V. Defect-Induced Optical and Magnetic Properties of Colloidal Transparent Conducting Oxide Nanocrystals. In *Functional Metal Oxides: New Science and Novel Applications*. Ogale, S. B.; Venkatesan, T. V.; Blamire, M. (Editors); Wiley-VCH: Weinheim, **2013**, *Chapter 5*, pp. 163-194. **Invited book chapter.**
**44.** Farvid, S. S.; Hegde, M.; Radovanovic, P. V. "Influence of the Host Lattice Electronic Structure on Dilute Magnetic Interactions in Polymorphic Cr(III)-Doped $In_2O_3$ Nanocrystals" *Chem. Mater.*, **2013**, *25*, 233-244.

**45.** Sun, X.; Iqbal, A.; Hosein, I. D.; Yacaman, M. J.; Tang, Z. Y.; Radovanovic, P. V.; Cui, B. "Structure Characterization and Electrochemical Characteristics of Carbon Nanotube-Spinel $Li_4Ti_5O_{12}$ Nanoparticles" *MRS Proc.*, **2012**, *1440*, mrss12-1440-o09-34.
**46.** Hegde, M.; Wang, T.; Miskovic, Z. L.; Radovanovic, P. V. "Origin of Size-Dependent Photoluminescence Decay Dynamics in Colloidal γ-$Ga_2O_3$ Nanocrystals" *Appl. Phys. Lett.*, **2012**, *100*, 141903.
**47.** Farvid, S. S.; Radovanovic, P. V. "Phase Transformation of Colloidal $In_2O_3$ Nanocrystals Driven by the Interface Nucleation Mechanism: A Kinetic Study" *J. Am. Chem. Soc.*, **2012**, *134*, 7015-7024.
**48.** Ju, L.; Sabergharesou, T.; Stamplecoskie, K. G.; Hegde, M.; Wang, T.; Combe, N.; Wu H.; Radovanovic, P. V. "Interplay between Size, Composition and Phase Transition of Nanocrystalline $Cr^{3+}$-Doped $BaTiO_3$ as a Path to Multiferroism in Perovskite-Type Oxides" *J. Am. Chem. Soc.*, **2012**, *134*, 1136-1146.
**49.** Hegde, M.; Farvid, S. S.; Radovanovic, P. V. "Electronic Structure and Magnetism of Mn Dopants in GaN Nanowires: Ensemble vs Single Nanowire Measurements" *Appl. Phys. Lett.*, **2011**, *99*, 222504.
**50.** Wang, T.; Radovanovic, P. V. "Size-Dependent Electron Transfer and Trapping in Strongly Luminescent Colloidal Gallium Oxide Nanocrystals" *J. Phys. Chem. C*, **2011**, *115*, 18473-18478.
**51.** Hegde, M.; Farvid, S. S.; Hosein, I. D.; Radovanovic, P. V. "Tuning Manganese Dopant Spin Interactions in Single GaN Nanowires at Room Temperature" *ACS Nano*, **2011**, *5*, 6365-6373.
**52.** Wang, T.; Radovanovic, P. V. "*In situ* Enhancement of the Blue Photoluminescence of Colloidal $Ga_2O_3$ Nanocrystals by Promotion of Defect Formation in Reducing Conditions" *Chem. Comm.*, **2011**, *47*, 7161-7163.
**53.** Farvid, S. S.; Wang, T.; Radovanovic, P. V. "Colloidal Gallium Indium Oxide Nanocrystals: A Multifunctional Light Emitting Phosphor Broadly Tunable by Alloy Composition" *J. Am. Chem. Soc.*, **2011**, *133*, 6711-6719.
**54.** Wang, T.; Radovanovic, P. V. "Free Electron Concentration in Colloidal Indium Tin Oxide Nanocrystals Determined by Their Size and Structure" *J. Phys. Chem. C*, **2011**, *115*, 406-413.
**55.** Farvid, S. S.; Wang, T.; Radovanovic, P. V. "Spectroscopic and Magnetic Properties of Colloidal Transition Metal-Doped Transparent Conducting Oxide Nanocrystals as Building Blocks for Spintronic Materials" *SPIE*, **2010**, *7760*, 77600B. **Invited paper.**
**56.** Wang, T.; Farvid, S. S.; Abulikemu, M.; Radovanovic, P. V. "Size-Tunable Phosphorescence in Colloidal Metastable γ-$Ga_2O_3$ Nanocrystals" *J. Am. Chem. Soc.*, **2010**, *132*, 9250-9252.
**57.** Dave, N.; Pautler, B. G.; Farvid, S. S.; Radovanovic, P. V. "Synthesis and Surface Control of Colloidal $Cr^{3+}$-Doped $SnO_2$ Transparent Magnetic Semiconductor Nanocrystals" *Nanotechnology*, **2010**, *21*, 134023.
**58.** Farvid, S. S.; Dave, N.; Radovanovic, P. V. "Phase-Controlled Synthesis of Colloidal $In_2O_3$ Nanocrystals via Size-Structure Correlation" *Chem. Mater.*, **2010**, *22*, 9-11.
**59.** Radovanovic, P. V. "Keeping Track of Dopants" *Nature Nanotech.* **2009**, *4*, 282-283.
**60.** Farvid, S. S.; Dave, N.; Wang, T.; Radovanovic, P. V. "Dopant-Induced Manipulation of the Growth and Structural Metastability of Colloidal Indium Oxide Nanocrystals" *J. Phys. Chem. C*, **2009**, *113*, 15928-15933.
**61.** Farvid, S. S.; Ju, L.; Worden, M.; Radovanovic, P. V. "Colloidal Chromium-Doped $In_2O_3$ Nanocrystals as Building Blocks for High-$T_C$ Ferromagnetic Transparent Conducting Oxide Structures" *J. Phys. Chem. C*, **2008**, *112*, 17755-17759.
**62.** Stamplecoskie, K. G.; Ju, L.; Farvid, S. S.; Radovanovic, P. V. "General Control of Transition-Metal-Doped GaN Nanowire Growth: Toward Understanding the Mechanism of Dopant Incorporation" *Nano Lett.*, **2008**, *8*, 2674-2681.
**63.** Radovanovic, P. V.; Stamplecoskie, K. G.; Pautler, B. G. "Dopant Ion Concentration Dependence of Growth and Faceting of Manganese-Doped GaN Nanowires" *J. Am. Chem. Soc.*, **2007**, *129*, 10980-10981.
**64.** Radovanovic, P. V.; Barrelet, C. J.; Gradecak, S.; Qian, F.; Lieber, C. M. "General Synthesis of Manganese-Doped II-VI and III-V Semiconductor Nanowires" *Nano Lett.*, **2005**, *5*, 1407-1411.

**65.** Archer, P. I.; Radovanovic, P. V.; Heald, S. M.; Gamelin, D. R. "Low-Temperature Activation and Deactivation of High-Curie-Temperature Ferromagnetism in a New Diluted Magnetic Semiconductor: $Ni^{2+}$-Doped $SnO_2$" *J. Am. Chem. Soc.*, **2005**, *127*, 14479-14487.

**66.** Radovanovic, P. V.; Gamelin, D. R. "High Temperature Ferromagnetism in Nanocrystalline $Ni^{2+}$-Doped ZnO" *Phys. Rev. Lett.*, **2003**, *91*, 157202.

**67.** Radovanovic, P. V.; Norberg, N. S.; McNally, K. E.; Gamelin, D. R. "Colloidal Transition-Metal-Doped ZnO Quantum Dots" *J. Am. Chem. Soc*. **2002**, *124*, 15192-15193.

**68.** Radovanovic, P. V.; Gamelin, D. R. "Magnetic Circular Dichroism Spectroscopy of $Co^{2+}$:CdS Diluted Magnetic Semiconductor Quantum Dots " *SPIE*, **2002**, *4809*, 51-61.

**69.** Radovanovic, P. V.; Gamelin, D. R. "Isocrystalline Core/Shell Synthesis of High Quality Diluted Magnetic Semiconductor Quantum Dots: Ligand-Field Spectroscopic Studies" *SPIE*, **2002**, *4807*, 223-231.

**70.** Radovanovic, P. V.; Gamelin, D. R. "Electronic Absorption Spectroscopy of Cobalt Ions in Diluted Magnetic Semiconductor Quantum Dots: Demonstration of an Isocrystalline Core/Shell Synthetic Method" *J. Am. Chem. Soc*. **2001**, *123*, 12207-12214.

**Patents**

**1.** Radovanovic, Pavle "Material, System and Method Making Use of Plasmon Resonance" *U.S. Patent Application No. 62/534,8930* (filed on July 20, 2017)

**2.** Radovanovic, Pavle "Light Emitting Material and Method for Production Thereof" *Canadian Patent 2,910,550* (awarded on May 26, 2021)

**3.** Radovanovic, Pavle "Light Emitting Materials and Systems and Method for Production Thereof" *U.S. Patent 10,584,281* (awarded on March 10, 2020)

**4.** Radovanovic, Pavle; Wang, Ting "Light Emitting Material and Method for Production Thereof" *U.S. Patent 9,676,996* (awarded on June 13, 2017)

**Selected Invited Talks and Addresses (total of 85; 6 keynote/plenary lectures)**

2022 Canadian Chemistry Conference (Canadian Society for Chemistry), Calgary, AB
2021 European Advanced Materials Congress (EAMC 2021), Stockholm, Sweden
2021 IAAM Scientist Medal Lecture, Advanced Materials Lecture Series, International Association of Advanced Materials
2020 238th Electrochemical Society Meeting, Honolulu, HI
2020 Photonics North 2020, Niagara Falls, ON
2020 11th International Conference on Quantum Dots (QD 2020), Munich, Germany
2019 Department of Engineering Physics, McMaster University
2019 American Chemical Society Fall Meeting, San Diego, CA
2019 Canadian Chemistry Conference (Canadian Society for Chemistry), Quebec City, QC
2018 Sustainable Industrial Processing Summit (SIPS 2018), Rio de Janeiro, Brazil (keynote)
2018 International Conference on Nano-Structured Materials and Devices (ICNSMD-2018), New Delhi, India (keynote)
2018 CIMTEC 2018 (8th Forum on New Materials), Perugia, Italy (June 2018)
2018 San Francisco-Bay Area IEEE (SFBA-IEEE) International Invitational Symposium, Milpitas, CA
2018 Nano World Conference, San Francisco, CA
2017 National University of Science and Technology (NUST-MISIS), Moscow, Russia
2017 Nano and Giga Challenges in Electronics, Photonics and Renewable Energy 2017, Tomsk, Russia
2017 16th World Nano Conference (Nano 2017), Milan, Italy (keynote)
2017 McMaster University, Department of Chemistry
2017 Dalhousie University, Department of Chemistry
2016 International Conference on Applied Crystallography (Crystallography 2016), Houston, TX

2016 Georgia Institute of Technology, Department of Chemistry
2016 6th International Conference on Materials Science and Engineering, Atlanta, GA (keynote)
2016 Emerging Technologies Meeting: Communications, Microsystems, Optoelectronics, Sensors (ETCMOS 2016), Montreal, QC
2016 Energy, Materials, Nanotechnology Meeting on Nanowires, Amsterdam, Netherlands
2015 YoungChem 2015, International Congress organized by the Chemical Scientific Society Flogistone, Krakow, Poland (keynote address)
2015 American Chemical Society Fall Meeting, Boston, MA
2014 Beijing Normal University, Department of Chemistry
2014 Beijing University of Science and Technology, School of Mathematics and Physics
2014 Beijing Institute of Technology (BIT), Department of Materials Science and Engineering
2014 4th Annual World Congress of Nanoscience & Technology (NanoS&T-2014), Qingdao, China
2014 Collaborative Conference on 3D and Materials Research (CC3DMR), Incheon, South Korea
2014 Canadian Chemistry Conference (Canadian Society for Chemistry), 3 invited talks
2014 IUPAC International Conference on Applied Chemistry, Suva, Fiji
2013 SPIE Optics & Photonics, Spintronics VI Symposium, San Diego, CA
2013 16th Canadian Semiconductor Science and Technology Conference, Thunder Bay, ON
2012 Institut Polytechnique de Grenoble (INP-Grenoble), Laboratoire des Materiaux et du Genie Physique, Grenoble, France
2012 Universite de Bordeaux 1, Department of Chemistry
2012 College de France, Laboratoire de Chimie de la Matière Condensée de Paris, Paris, France
2012 American Chemical Society Meeting, Philadelphia, PA
2012 Canadian Chemistry Conference (Canadian Society for Chemistry), Calgary, AB
2012 Institute of Advanced Functional Materials, University of Bordeaux, France
2012 Emerging Technology Workshop, Suzhou Industrial Park, Suzhou, China
2012 Max-Planck Insitut für Intelligente Systeme, Stuttgart, Germany
2011 XEROX Corporation, Research Centre of Canada
2011 University at Buffalo (The State University of New York), Department of Physics
2011 University of Western Ontario, Department of Chemistry
2010 University of Washington, Department of Chemistry
2010 Simon Fraser University, Department of Chemistry
2010 NW 2010 (International Workshop on Growth and Physics of Nanowires), Crete, Greece
2010 Canadian Light Source (CLS), University of Saskatchewan
2010 University of Guelph, Department of Chemistry

**Research Funding Record**

| **Investigators** | **Funding Agency and Program** | **Total Amount ($)** | **Project Period** |
|---|---|---|---|
| Pavle Radovanovic | NSERC, GRF-RTI Award | 20,000 | 2021-2023 |
| Pavle Radovanovic | NSERC, Discovery Accelerator Supplement Award | 120,000 | 2020-2025 |
| Pavle Radovanovic | NSERC, Discovery Grant | 395,000 | 2020-2025 |

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| Pavle Radovanovic | Waterloo Commercialization Office (WatCo), Prototype Development/Demonstration Project | 30,000 | 2019-2020 |
| Pavle Radovanovic (lead PI), Hany Aziz, Zoran Miskovic (co-PIs) | NSERC-Strategic Partnership Grant (48%) | 772,280 | 2018-2022 |
| Pavle Radovanovic | NSERC-Engage | 25,000 | 2018 |
| Pavle Radovanovic | NSERC, Idea-to-Innovation Market Assessment Grant | 19,775 | 2017-2018 |
| Pavle Radovanovic | Quantum Quest Seed Fund, Canada First Research Excellence Fund | 199,834 | 2017-2021 |
| Pavle Radovanovic | NSERC, Research Tools and Instruments | 150,000 | 2016-2018 |
| Pavle Radovanovic | NSERC, Engage | 25,000 | 2016-2017 |
| Pavle Radovanovic | NSERC, Discovery Grant | 295,000 | 2015-2020 |
| Pavle Radovanovic | Collaborative Waterloo-Bordeaux Research Grants | 100,000 | 2015-2017 |
| Pavle Radovanovic | NSERC, Idea-to-Innovation Market Assessment Grant | 14,990 | 2015-2016 |
| Pavle Radovanovic | ACS-Petroleum Research Fund, New Directions Grant | 100,000 (USD) | 2015-2016 |
| Pavle Radovanovic | Ontario Centers of Excellence, Market Readiness, Phase I | 50,000 | 2013-2014 |
| Pavle Radovanovic | NSERC, Research Tools and Instruments | 117,370 | 2013-2015 |
| Pavle Radovanovic | NSERC, Canada Research Chair Program (renewed) | 500,000 | 2013-2017 |
| Pavle Radovanovic | Canadian Light Source, User Operational Grant | 52,000 | 2013-2014 |
| Pavle Radovanovic | C4 Consortium, Proof-of-Principle Grant | 35,000 | 2012-2013 |
| Pavle Radovanovic | NSERC, Idea to Innovation Award | 122,250 | 2012-2013 |
| Pavle Radovanovic | Ontario Ministry of Research and Innovation, Early Researcher Award | 150,000 | 2011-2016 |
| Pavle Radovanovic | NSERC, Discovery Grant | 200,000 | 2010-2015 |
| Pavle Radovanovic | Canadian Light Source, User Operational Grant | 145,000 | 2010-2011 |
| Pavle Radovanovic | NSERC, Canada Research Chair Program | 500,000 | 2008-2012 |

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| Pavle Radovanovic | Canada Foundation for Innovation, Leaders Opportunity Fund | 205,000 | 2008-2010 |
| Pavle Radovanovic | Ontario Research Fund, Research Infrastructure | 205,000 | 2008-2010 |
| Pavle Radovanovic | NSERC, Discovery Grant | 109,500 | 2007-2010 |
| Pavle Radovanovic | NSERC, Research Tools and Instruments | 148,900 | 2007 |

**Media Coverage (over 50 appearances)**

- Radio interviews:

CBC Radio "*The Morning Edition with Craig Norris*"
610 CKTB (Bell Media) "*One on one with Kevin Jack*"

- TV network interviews and reports:

Renanosoma Channel, Rio de Janeiro, Brazil (Nanotechnology Inside Out Series with Paulo Martins)
Weather Network Channel (Science and Technology Program with Nicole Karkic)
CHEX TV 12 Durham (Technology News)

- Print and online media outlets:

CBC News, Huffington Post, Vancouver Star, yahoo Canada, msn Canada, Canada Online News, World's Daily News, World News, News British Columbia, News Maritimes, paNOW, NationsRoot, Airing News

**Research Supervision**

Supervised 43 graduate students (Ph.D. and M.Sc), 11 postdoctoral fellows, and over 40 undergraduate students (including honors chemistry students working on undergraduate thesis research projects).

**SERVICE**

**Selected External Scientific Community Service (total of 20)**

- Co-organizer of the Symposium "*Frontiers in the Chemistry of Nanoscience*" at the Joint IUPAC-Canadian Chemistry Conference and Exhibition, Montreal, QC (August 13-20, 2021)
- NSERC Site Visit Committee, CRD Grant, University of Toronto, June 26-27, 2017
- Young Investigator Awards Committee, 16$^{th}$ World Nano Conference (Nano 2017), Milan, Italy
- Organizing Committee for 10$^{th}$ International Conference on Emerging Materials and Nanotechnology, Emerging Materials Conference Series, Vancouver, BC (July 27-29, 2017)
- Scientific Committee for the 2$^{nd}$ International Conference on Nanotechnology Modeling and Simulation (ICNMS'17), Barcelona, Spain (April 4-6, 2017)
- International Organizing Committee for the Energy, Materials & Nanotechnology Meeting (EMN 2015), Bangkok, Thailand (November 10-13, 2015)
- Award Selection Committee at the YoungChem 2015, Krakow, Poland (October 7-11, 2015)
- Invited Discussion Leader at the Gordon Research Conference on Defects in Semiconductors, Biddeford, ME (August 12-17, 2012)
- Co-organizer of the Symposium *JJ* (*Nanowires: Novel Assembly Concepts and Device Integration*) at the Materials Research Society Meeting in Boston (Fall 2007)