

## Federico Rosei, Professor and Canada Research Chair in Nanostructured Materials

### UNESCO Chair, Materials and Technologies for Energy Conversion, Saving and Storage

F.R.S.C., FAPS, FCAE, FEurASc, FAAS, FAAAS, FACerS, FAAET(F), FSPIE, FOSA, FASM, FRSC(UK), FIET, FEIC, FInstP, FIMMM, FAIP, SMIEEE

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*(On leave from Institut National de la Recherche Scientifique, Canada)*

## EDUCATION

**Ph.D.** (Materials Physics) University of Rome 'La Sapienza', Rome, Italy (February 2001)

**Laurea** (Physics) University of Rome 'La Sapienza', Rome, Italy (February 1996)

## ACADEMIC EXPERIENCE

|   |                   |   |                         |
|---|-------------------|---|-------------------------|
| Chair in Industrial Chemistry           | 03/2023-Present   | DSCF, University of Trieste   | Trieste, Italy          |
| Visiting Scientist                      | 11/2022           | CNR-IOM   | Trieste, Italy          |
| Visiting Professor                      | 09/2022           | Ca' Foscari University, Venezia                                       | Venice, Italy           |
| Executive Director                      | 01/2021-Present   | International Organization of Chemical Sciences in Development (IOCD) | Namur, Belgium          |
| Research Advisor, Collaborative Partner | 2020 – 2024       | Universiti Tunku Abdul Raman (UTAR)                                   | Kuala Lumpur (Malaysia) |
| Visiting Scientist                      | 09/2019           | CNR-ISM   | Rome, Italy             |
| Fulbright Visiting Chair                | 01/2017 – 04/2018 | California Nanosystems Institute, UCLA                                | Los Angeles, USA        |
| Canada Research Chair (Tier I)          | 2016 – 2023       | Centre EMT, INRS  | Varennes, Canada        |
| Chang Jiang Scholar                     | 2015 – 2017       | Institute of Fundamental and Frontier Science, UESTC                  | Chengdu, China          |
| UNESCO Chair                            | 2013 – 2025       | Centre EMT, INRS  | Varennes, Canada        |
| Canada Research Chair (Tier II)         | 2003 – 2013       | Centre EMT, INRS  | Varennes, Canada        |
| Visiting Scientist                      | 06/2014           | CNR-ISM   | Rome, Italy             |
| Visiting Professor                      | 09/2013           | Flinders University, Australia  | Adelaide, Australia     |
| Director                                | 06/2011 – 03/2019 | Centre EMT, INRS  | Varennes, Canada        |
| Visiting Scientist                      | 06/2010 – 07/2010 | CNR-ISM   | Rome, Italy             |
| Visiting Scientist                      | 03/2010 – 04/2010 | MANA-NIMS   | Tsukuba, Japan          |
| Visiting Professor                      | 01/2010 – 12/2012 | University of Western Australia                                       | Perth, Australia        |
| Humboldt Awardee                        | 05/2011 – 11/2011 | Max Planck Institute for Solid State Research                         | Stuttgart, Germany      |
| Full Professor                          | 06/2009-02/2023   | Centre EMT, INRS  | Varennes, Canada        |
| Visiting Professor                      | 12/2008 – 05/2009 | University of Western Australia                                       | Perth, Australia        |
| Associate Professor                     | 06/2004 – 05/2009 | Centre EMT, INRS  | Varennes, Canada        |
| Visiting Professor                      | 02/2008           | Nanyang Technological University                                      | Singapore               |
| Visiting Scientist                      | 11/2007           | CNR-ISC   | Rome, Italy             |
| Visiting Professor                      | 07/2007           | NUSNNI, National University of Singapore                              | Singapore               |
| Visiting Professor                      | 11/2006 – 02/2007 | ISSP, University of Tokyo   | Kashiwa, Japan          |
| Visiting Scientist                      | 09/2006           | CNR-INFN-TASC   | Trieste, Italy          |
| Visiting Professor                      | 01/2005           | CQCT, University of New South Wales                                   | Sydney, Australia       |
| Assistant Professor                     | 05/2002 – 05/2004 | Centre EMT, INRS  | Varennes, Canada        |
| Post-Doctoral Fellow                    | 11/2000 – 04/2002 | Centre for Atomic Scale Materials Physics, University of Aarhus       | Aarhus, Denmark         |

## SERVICE, MEMBERSHIP AND LEADERSHIP IN LEARNED SOCIETIES

Member of the Board of Directors, University Foundation INRS Armand Frappier, 2012–2017

Member of the MRS Mentoring Program, 2012–2015

Member of the Diversity Committee, American Ceramic Society, 2013–2014.

Canadian and International Associate Director, Sigma Xi Society, 2013–2016.

Member of the Selection Committee of the Global Young Academy, 2014 – 2021.

Member of the Emerging Technologies Awareness Committee, ASM International, 2015–2018; renewed, 2018–2021.

Member of the Global Science Excellence Roundtable (initiative of the Government of Canada), Saskatoon August 2016.

Founding Chair of the IEEE Nanotechnology Council Montreal Chapter, 2016 – Present

Vice Chair of the IEEE Montreal Section, 2016–2019.

Member of the JC Polanyi Award Selection Committee, Canadian Society for Chemistry, 2017–2018 and 2019–2020.

Member of the "Prix du Quebec / Lionel-Boulet" Selection Committee, 2017.

Ambassador, IEEE Day 2017 and 2019.

Founding Chair of the American Ceramic Society Canada Chapter, 2017 – Present

Member of the International Committee of the Canadian Academy of Engineering, 2018 – Present

Member of the Killam Prizes and Fellowships Selection Committee, Canada Council for the Arts, 2018–2021.

Member of the Selection Committee of new Fellows, Division of Applied Science and Engineering, Academy of Science, Royal Society of Canada 2019–2020; Secretary of the Committee, 2020; Chair of the Division of Applied Science and Engineering, 2021–2023.

Member of the Selection Committee of new Fellows, Canadian Academy of Engineering, 2019–2021.

Member of the Alan Ray Putnam Award Selection Committee, ASM International, 2020–2022.

Member of the Steacie Prize Selection Committee, 2020–2022.

Head of the Materials Science Division, European Academy of Sciences (March 2020 – Present)

Member of the John Wheatley Award Selection Committee, American Physical Society, 2020.

Member of the ACerS Rishi Raj Medal for Innovation and Commercialization in Ceramics, 2020–2025

Member of the PCSA Mentoring Program, American Ceramic Society, Jan. 2020 – Present

Member of the APS Inclusion, Diversity, and Equity Alliance (IDEA) Network, April 2020 – Present

Member of the Advisory Committee (MACs) for Chemical Sciences, African Academy of Sciences, April 2021 – Present

Member of the Advisory Committee (MACs) for Engineering Technology and Applied Sciences, African Academy of Sciences, April 2021 – Present

Member of the R.W. Wood Prize Committee, Optica, 2022–2024.

Lifetime Member: American Physical Society; American Ceramic Society; SPIE; TMS; Electrochemical Society (ECS); Optical Society of America (OSA, now Optica); ASM International

Vice President, International Engineering and Technology Institute (IETI) (2022–2026)

Mentor for Early Career Researchers, American Ceramic Society (2023 – )

Mentor for Graduate Students, American Ceramic Society (2023 – )

## SERVICE TO INDUSTRY

Member of the Advisory Board, Group NanoXplore Inc. (2013–2015)

## Awards, honours, prizes, medals, distinctions

### Fellowships in national and international academies (12)

Foreign Fellow, ASEAN Academy of Engineering and Technology (2022)

Member, European Academy of Sciences and Arts (2021)

Foreign Member, Academia Europaea (2018)

Foreign Fellow, Bangladesh Academy of Sciences (2018)

Associate Fellow, African Academy of Sciences (2017)

Academician, World Academy of Ceramics (2017)

Fellow, World Academy of Art and Science (2016)

Fellow, Canadian Academy of Engineering (2015)

Fellow, Royal Society of Canada (2014)

Member (Fellow), European Academy of Sciences (2014)

Fellow, Engineering Institute of Canada (2013)

Member, Global Young Academy (2013–2018)

### Fellowships and Senior Memberships in learned societies (21)

Fellow, American Ceramic Society (2021)

Distinguished Fellow, International Engineering and Technology Institute (IETI) (2018)

Fellow, International Association of Advanced Materials (2020)

Fellow, Optica (2018) [formerly the Optical Society of America]

Senior Member, Optical Society of America (2017)

Fellow, Royal Society of Arts (2016)

Honorary Fellow, Chinese Chemical Society (2015)

Fellow, ASM International (2015)

Fellow, SPIE (2015)

Fellow, American Physical Society (2014)

Fellow, Australian Institute of Physics (2013)

Senior Member, SPIE (2013)

Fellow, American Association for the Advancement of Science (2012)

Fellow, Royal Society of Chemistry (UK) (2012)  
Senior Member, Institute of Electrical and Electronics Engineers (2012)  
Fellow, Institution of Engineering and Technology (UK) (2011)  
Fellow, Institute of Materials, Metallurgy and Mining (UK) (2011)  
Fellow, Institute of Physics (UK) (2010)  
Full Member, Sigma Xi Society (2010)  
Fellow, Institute of Nanotechnology (UK) (2010)

**Awards and distinctions for research (19, International)**

Fellowship, John Simon Guggenheim Memorial Foundation (2023)  
Spirit of Alam Award, The Abdus Salam International Centre for Theoretical Physics (2023)  
Envoy of People's Friendship Award, Jiangsu Province, China (2022)  
World's Top 2% Scientists, Listed by Stanford University (2022)  
Brimacombe Medal, TMS (2021)  
World's Top 2% Scientists, Listed by Stanford University (2021)  
Nano Energy Advances Award, Nano Energy Advances Journal (2021)  
Annual Scientific Award, International Engineering and Technology Institute (IETI) (2020)  
Guangxi Golden Silkball Friendship Award, Guangxi Zhuang Autonomous Region, China (2020)  
World's Top 2% Scientists, Listed by Stanford University (2020)  
Top 5% of highly cited authors of RSC journals, Royal Society of Chemistry (2019–2020)  
Blaise Pascal Medal, Materials Science Division, European Academy of Sciences (2019)  
Distinguished Award on Novel Materials and their Synthesis (2017), XIII<sup>th</sup> IUPAC Conference on Novel Materials and their Synthesis, Nanjing (2017)  
Premio Venezia (Academic/Scientific category), Italian Chamber of Commerce, Montreal (2017)  
1000 Talents short term award, Sichuan Province (2017)  
Khwarizmi International Award (2<sup>nd</sup> laureate), Iranian Research Organization for Science and Technology (2015)  
Chang Jiang Chair Professor, UESTC, Chengdu (2015–2017)  
Friedrich Wilhelm Bessel Award, Alexander von Humboldt Foundation (2010)  
Marie Curie Fellowship, European Union (2001–2002)

**Awards and distinctions for research (20, National)**

Knight of the National Order of Quebec, Government of Quebec (2023)  
Canadian Light Source T.K. Sham Award in Materials Chemistry, Canadian Society for Chemistry (2023)  
Brockhouse Medal, Canadian Association of Physicists (DCMMP) (2022)  
Premio nazionale "Gentile da Fabriano", Associazione "Gentile Premio", Fabriano (Italy), 2022  
Julian C. Smith Medal, Engineering Institute of Canada (2022)  
Prix Urgel Archambault, ACFAS (2021)  
Prix du Quebec "Marie Victorin", Prix du Quebec scientifiques, Ministère de l'Économie et l'Innovation (2021)  
Gold Medal, IEEE Montreal (2018)  
Outstanding Engineer Award, IEEE Canada (2017)  
Canada Research Chair, Tier I, Centre EMT, INRS (2016-2023)  
John C. Polanyi Award, Canadian Society for Chemistry (2016)  
Lash Miller Award, Canada Section, Electrochemical Society (2015)  
Award for Excellence in Materials Chemistry, Canadian Society for Chemistry (2014)  
EWR Steacie Memorial Fellowship, NSERC (2014), received from the Governor General of Canada  
Herzberg Medal, Canadian Association of Physicists (2013)  
Best Paper Award, Centre for Self-Assembled Chemical Structures (2012)  
Rutherford Memorial Medal (Chemistry), Royal Society of Canada (2011)  
Canada Research Chair, Tier II, Centre EMT, INRS (2008-2013, renewal)  
Canada Research Chair, Tier II, Centre EMT, INRS (2003-2008)  
New Strategic Professor, FQRNT, Province of Quebec (2002)

**Awards and distinctions for service, collaboration, education and outreach (8)**

Envoy of People's Friendship Award, Jiangsu Province, China (2022)  
Guangxi Golden Silkball Friendship Award, Guangxi Zhuang Autonomous Region, China (2020)  
John Wheatley Award, American Physical Society (2019)  
Changbai Mountain Friendship Award, Province of Jilin, China (2018)

ACerS Global Ambassador, American Ceramic Society (2018)  
 Excellence in Mentorship, American Vacuum Society (2015)  
 José Vasconcelos Award for Education, World Cultural Council (2014)  
 Bell Outreach Award, Foundation INRS Armand Frappier (2014)

#### **Awards for research and education (6, Internal)**

Planet INRS Career Award for excellence in supervision and training, INRS (2023)  
 Planet INRS Award for Education, INRS (2021)  
 Planet INRS Award for Education, INRS (2019)  
 Planet INRS Award for Research, INRS (2017)  
 Planet INRS Award for Research, INRS (2016)  
 Planet INRS Award for Education, INRS (2015, shared with T.W. Johnston and A. Pignolet)

#### **HONORARY PROFESSORSHIPS (10)**

|                                  |  |
|----------------------------------|--|
| Honorary Professor               | Nanjing Tech (2022)  |
| Advisory Professor               | Beijing Institute of Technology (2019)                                       |
| Honorary Professor               | Jilin Normal University, Changchun (2018)                                    |
| Distinguished Honorary Professor | Changchun Institute of Applied Chemistry, Chinese Academy of Sciences (2018) |
| Honorary Professor               | Changchun University (2017)  |
| Honorary Professor               | Changchun University of Science and Technology (2017)                        |
| Honorary Professor               | University of Qingdao (2017)   |
| Chair Professor                  | Suzhou University (2016 – )  |
| Honorary Professor               | Harbin Institute of Technology (2016)  |
| Honorary Professor               | University of Jinan (2015–2018)  |

#### **NAMED / AWARD / VISITING LECTURESHIPS**

|  |   |
|--|---|
| Distinguished Lecturer   | IEEE Electron Devices Society (2022–2024).  |
| Wolfson Visiting Fellowship  | The Royal Society (2021)  |
| Skipper Lecture  | CAS Institute of Process Engineering, Beijing (China) (2021)                        |
| Dongwu Master's Lecture Forum  | Suzhou University, Suzhou (Jiangsu, China) (2021)                                   |
| Distinguished Lecturer   | IEEE Photonics Society (2020–2022)  |
| Distinguished Lecture  | Waterloo Institute of Nanotechnology, University of Waterloo (2019)                 |
| Special Lecture  | CAS Youth Innovation Promotion Association, Beijing (2019)                          |
| Qinghe Seminar Prize   | Shanghai Institute of Optics and Fine Mechanics, Chinese Academy of Sciences (2018) |
| Distinguished Guest Speaker  | SUSTech Lecture Series, Shenzhen, China (2018)                                      |
| Honorable Speaker for the Applied Chemistry Lecture Series                                     | Changchun Institute of Applied Chemistry, Chinese Academy of Sciences (2018)        |
| Lee Hsun Lecture Award   | Institute of Metal Research, Chinese Academy of Sciences (2017)                     |
| President's Visiting Fellowship for Distinguished Scientists (formerly Einstein Professorship) | Chinese Academy of Sciences (2017)  |
| Fulbright Visiting Chair (UCLA)  | USA/Canada Fulbright Foundation (2017)  |
| Distinguished Lecturer   | Sigma Xi Society (2018–2020)  |
| Kennedy Series Lecture   | Ohio University (2017)  |
| China Distinguished Materials Scientist Forum  | University of Science and Technology Beijing (2016)                                 |
| iNano Distinguished Lecture  | University of Aarhus, Denmark (2016)  |
| Visiting Lectureship Award (India)   | ASM IIM (2016)  |
| Selby Fellowship   | Australian Academy of Sciences (2016)   |
| Distinguished Lecturer   | IEEE Nanotechnology Council (2015 and 2016)   |
| Distinguished Visitor/Speaker  | California State University Northridge (2013)                                       |
| Grand Challenge Lecture  | Institute for Future Environments, Queensland University of Technology (2013)       |
| Brian Ives Lectureship Award   | ASM Canada Council / ASM International (2013)                                       |
| Visiting Lectureship Award (India)   | ASM IIM (2010)  |
| Spheres of Influence Lecture   | Institute of Health and Biomedical Innovation, Queensland Univ of Technology (2008) |
| JSPS Senior Special Visiting Fellowship  | MANA–NIMS, Tsukuba (Japan) (2010)   |
| Tan Chin Tuan Fellowship   | Nanyang Technological University (2008)   |

Gledden Fellowship  
 REES/JISTEC Fellowship  
 REES/JISTEC Fellowship

University of Western Australia (2008)  
 NTT Basic Research Laboratories (2000)  
 NTT Basic Research Laboratories (1999)

## CITATIONS FOR FELLOWSHIPS AND AWARDS

### ❖ **Knight of the National Order of Quebec (2023) [Chevalier de l'Ordre National du Quebec, 2023]**

Federico Rosei est un professeur et un chercheur œuvrant dans le domaine des systèmes infiniment petits. Se mesurant à l'échelle nanométrique, ces systèmes sont utilisés dans une vaste gamme d'applications, y compris la santé, l'environnement, les énergies renouvelables ainsi que les technologies de l'information et des communications. M. Rosei a fondé le Laboratoire nanofemtoseconde de l'Institut national de la recherche scientifique et en est le responsable scientifique. Il est également titulaire de la Chaire de recherche du Canada (niveau 1) sur les matériaux nanostructurés. Mû par la quête de solutions aux défis du développement durable, il est le créateur et le titulaire de la Chaire de l'UNESCO sur les matériaux et les technologies pour la conversion, l'économie et le stockage de l'énergie. Son équipe de recherche a entre autres participé à l'essor de l'utilisation de la radiation solaire pour transformer l'eau en oxygène et hydrogène, un combustible vert. De plus, il a travaillé avec plusieurs entreprises québécoises sur les cellules solaires et batteries de nouvelle génération. Par ailleurs, il a formé plus de 200 jeunes scientifiques provenant de 46 pays, dont 31 poursuivent une carrière professorale dans 14 pays. Pendant tout son parcours professionnel, Federico Rosei a utilisé la recherche pour promouvoir les technologies d'énergie renouvelable. Il a visé à influencer les politiques publiques sur les priorités de recherche, en particulier en matière de développement durable. Au-delà de l'originalité de ses idées et de son leadership scientifique et académique, son approche pluridisciplinaire et collaborative le pousse à jouer un rôle transformationnel à l'échelle mondiale.

### ❖ **Canadian Light Source – T.K. Sham Award in Materials Chemistry, Canadian Society for Chemistry (2023)**

During 20 years of independent research and supervision in Canada, Federico Rosei has reported numerous breakthrough achievements in materials chemistry, working on several different classes of materials. He pioneered the synthesis and characterization of multiple novel materials systems, also integrating them in optoelectronic devices. In particular, he designed and realized various cases of core/shell Quantum Dots (QDs), in which he varied the composition, size and morphology to fine-tune the energy levels, bandgap and emission spectra. Integrating these QDs in solar cells, photoelectrochemical (PEC) cells for green H<sub>2</sub> production from water and Luminescence Solar Concentrators ("solar windows"), he reported several record values of performance. His group holds the world record of power conversion efficiency in ferroelectric photovoltaics, both in multilayer films (8.1%) and single layer films (4.2%). In addition to highly original and impactful research in materials chemistry, Prof. Rosei is also an outstanding mentor who has personally trained over 185 young scientists at all levels, from 42 different countries. Many alumni from his group, including 30 who are themselves professors in 14 countries, have already developed independent careers in their own right. Several thousand students and trainees beyond his research group have also benefited from his advice and guidance, through his popular book "Survival Skills for Scientists", his professional development workshop by the same title and over 80 lectures at international conferences and universities worldwide. Both his achievements in research and in mentoring have been widely recognized through numerous national and international awards and honours.

### ❖ **Spirit of Salam Award, the International Centre for Theoretical Physics (2023)**

Federico Rosei, Institut National Recherche Scientifique (Montréal, Canada), has shown outstanding international leadership, spanning from research, to education to building capacity and mentoring. His efforts in research, education, capacity building and knowledge dissemination have no disciplinary or geographical borders and go well beyond his own interests and pursuits, consistent with that Salam's vision and legacy.

### ❖ **Canadian Association of Physicists Brockhouse Medal (2022)**

Federico Rosei is an experimental physicist who works towards understanding structure-property relationships in nanostructured materials, at the forefront and interface of materials physics and related disciplines. He elucidated the determining factors of structure, composition and size on the physical properties of several classes of nanomaterials including semiconductor nanostructures, multiferroic oxides, two-dimensional molecular assemblies and biocompatible interfaces. In particular, he developed novel strategies to control the growth of low-dimensional organic and inorganic materials from the basic and applied science's perspectives. His original work in designing and synthesizing on-surface conjugated and carbon-based conducting polymers using the Ullmann coupling reaction has had a significant impact in the field of surface polymerization and molecular self-assembly. In parallel, his group holds the world record of power conversion efficiency (8.1%) in ferroelectric photovoltaics, based on the novel concept they developed for tuning the bandgap of multiferroic oxide thin films. His influence is international, as testified by peer recognition through numerous prestigious awards, honours and distinctions including Fellow of: the American Physical Society, the Royal Society of Canada, the European Academy of Sciences, the Academia Europaea, AAAS, Optica, SPIE, ASM International, Khwarizmi International Award (Iran); Selby Fellowship (Australian Academy of Sciences); Herzberg Medal (Canadian Association of Physicists 2013); the Rutherford Medal (Royal Society of Canada); NSERC Steacie Fellowship; Bessel

Award (Humboldt Foundation). In addition to his outstanding research, he is renowned for mentoring young scientists through his widely-attended “Survival Skills for Scientists” workshops, manifested in his best-selling book of the same title. He also established the UNESCO Chair MATECSS that marks an expansive stage of his devotion to sharing knowledge and capacity building in the South. He is a champion of equity, diversity and inclusion through his exceptional mentoring efforts of women and young scholars from all over the world.

❖ **Julian C. Smith Medal, Engineering Institute of Canada (2022)**

For exceptional achievements in the development of Canada

❖ **Fellow of the American Ceramic Society (2021)**

In Recognition of Notable Contributions to the Ceramic Arts and Sciences.

❖ **John Wheatley Award, American Physical Society (2019)**

For sustained leadership and service to the international physics community, in particular for developing global collaborations through projects and networks in China, Mexico and several African countries, and for exceptional mentoring efforts.

❖ **Distinguished Fellow of International Engineering and Technology Institute (2018)**

By authority of the Members of IETI, Federico Rosei, having achieved distinction for outstanding, rigorous, insightful and innovative contributions to engineering and technology, and for unselfish dedication in promoting the aims of the Institute, has this day (October 19<sup>th</sup>, 2018) been admitted as a Distinguished Fellow of IETI

❖ **Fellow of Optica (Optical Society of America, 2018)**

For leadership in photonic materials and optoelectronic devices, in particular for next generation solar technologies

❖ **ACerS Global Ambassador (2018)**

For his sustained leadership and service to the society in organizing numerous conferences and his outstanding efforts in developing global collaborations and outreach on behalf of the ceramics community

❖ **Lee Hsun Lecture Award, Chinese Academy of Sciences (2017)**

For his outstanding contribution in the field of materials science and engineering

❖ **Academician, World Academy of Ceramics (2017)**

For leadership in ceramic materials synthesis and characterization, in particular multifunctional materials and their use in photovoltaics, and for sustained efforts in mentoring and outreach

❖ **John C. Polanyi Award, Canadian Society for Chemistry (2016)**

For innovation in physical chemistry and seminal work in surface reactions

❖ **Fellow of ASM International (2015)**

For sustained contributions to the synthesis and characterization of multifunctional materials through outstanding research in terms of output and impact and for exceptional mentoring activities.

❖ **Fellow of the Canadian Academy of Engineering (2015)**

Federico Rosei has made a number of seminal contributions in materials engineering, including quantifying intermixing in Group IV semiconductors, nanostructuring surfaces to improve biocompatibility, controlled patterning of functional materials and their integration in devices. His work has been recognized through multiple awards and distinctions in Canada and internationally, including Fellow of the Royal Society of Canada, of the European Academy of Sciences, of the Engineering Institute of Canada, of AAAS, Steacie Fellowship (NSERC) and Bessel Award (Humboldt Foundation) among others. He has also made distinct contributions to mentoring young engineers and scientists, by fostering diversity and developing an intensive training course as a career guide for young professionals.

❖ **Fellow of SPIE (2015)**

For his leadership in nanomaterials and their applications in photonics.

❖ **Khwarizmi International Award (2015)**

For his Excellence and Dedication in Research.

❖ **Jose Vasconcelos World Award for Education, World Cultural Council (2014)**

The prize was awarded for his career both within the Chemical Sciences and as an advocate of a global approach to societal development through scientific knowledge and innovation, inspiring and educating people. The prize also recognized his vision and talent, through which he built a global network of young researchers, many of whom have obtained important positions both in science and in society.

❖ **Fellow of the American Physical Society (2014)**

For his pioneering and innovative work on the physical properties of organic/inorganic surfaces and interfaces and of molecular self-assembly in two dimensions.

❖ **Fellow of the Royal Society of Canada (2014)**

Federico Rosei has made seminal contributions to the development and application of nanomaterials: semiconductor nanostructures, novel functional materials and their integration in devices, nanostructuring surfaces for biocompatibility and surface-confined molecular architectures. He is committed to fostering diversity in science and engineering. He has drawn trainees from 24 countries, and developed an intensive training course, delivered to hundreds of trainees since 2003, as a career guide for young scientists.

❖ **Award for Excellence in Materials Chemistry, Canadian Society for Chemistry (2014)**

For innovation in materials chemistry and pioneering molecular self-assembly and surface polymerization approaches.

❖ **Senior Member, SPIE (2013)**

For achievements in technical accomplishments, technical leadership and professional contributions.

❖ **Canadian Association of Physicists Herzberg Medal (2013)**

Federico Rosei is a materials physicist who has made outstanding contributions to the field of experimental condensed matter physics, including several breakthrough demonstrations of new materials and techniques. His research focuses on the control of size, shape, composition and stability of nanomaterials. Rosei's work has led to new insights in structure/property relationships in several classes of materials, ranging from semiconductor nanostructures to two-dimensional supramolecular assemblies to biocompatible materials. His group developed novel strategies to control the growth of low-dimensional organic and inorganic materials, and has significantly elucidated intermixing, nanostructure formation and crystallization phenomena in Group IV semiconductors. His work has had a significant impact in the field of molecular self-assembly, identifying new directions of discovery, including the first demonstration of extended on-surface covalent coupling using the Ullmann reaction. Rosei's 150 articles have been cited over 3700 times. He has been invited to speak at over 150 international conferences and has given over 145 seminars in 39 countries on all inhabited continents, demonstrating the outstanding impact of his work. He is also renowned for his efforts in mentoring young scientists, which extend well beyond his own group through widely-attended "Survival Skills for Scientists" workshops, supported by his book of the same title. Rosei's influence spans across many disciplines, as testified by the numerous prestigious awards and distinctions he already received. He is Fellow of the American Association for the Advancement of Science, the Institute of Physics, the Australian Institute of Physics, the Royal Society of Chemistry, the Institution of Engineering and Technology, the Engineering Institute of Canada, the Institute of Materials, Metallurgy and Mining, Senior Member of IEEE and Member of the Global Young Academy. His awards include a Canada Research Chair, the Bessel Award (Alexander von Humboldt Foundation) and the Rutherford Memorial Medal in Chemistry (Royal Society of Canada).

❖ **Fellow, Engineering Institute of Canada (2013)**

For excellence in engineering and services to the profession and society:

Federico Rosei has applied his expertise in nano engineering and materials engineering to a number of different areas. He has made notable contributions in the understanding and metrology of intermixing in Group IV semiconductors, nanostructuring of surfaces for improved biocompatibility, controlled growth of one and two-dimensional polymers, patterning and controlled positioning of functional materials, and the development of novel oxide photovoltaic materials. Prof. Rosei's commitment to materials research is matched by his commitment to mentoring and training the next generation of engineers and scientists. In addition, he has developed an intensive training course to guide trainees through the process of planning and advancing in their careers, and has delivered it to over 450 students and postdocs during its presentation as a graduate course and during intensive two-day sessions.

❖ **Fellow, American Association for the Advancement of Science (2013)**

For outstanding contributions to the understanding of the physical and chemical properties of surfaces and interfaces.

❖ **Rutherford Memorial Medal in Chemistry, Royal Society of Canada (2011)**

The nominee's work and scientific achievements have led to remarkable new insights on the properties of organic/inorganic surfaces and interfaces. In particular, he has made outstanding contributions to the understanding of molecule-surface interactions,

surface reconstructions induced by molecular adsorbates, formation of supramolecular structures governed by non-covalent interactions, guest/host molecular architectures and surface confined polymerization reactions.

❖ **Friedrich Wilhelm Bessel Award, Alexander von Humboldt Foundation (2010)**

In recognition of the caliber and scope of his research in the field of nanomaterials.

## THESES

- **Ph.D. Thesis:** *Growth and Characterization of Ge/Si(111) Nanostructures*, University of Rome ‘La Sapienza’, Rome, Italy.  
**Advisor:** Prof. A. Balzarotti
- **Laurea Thesis:** *(e,2e) Coincidence Spectroscopy from Solid Surfaces*, University of Rome ‘La Sapienza’, Rome, Italy.  
**Advisor:** Prof. G. Stefani

## EDITORIAL AND ADVISORY BOARD RESPONSIBILITIES

- Inaugural Editor in Chief, *RSC Applied Interfaces* (February 2023 – Present)
- Associate Editor, *Journal of Materials Chemistry C*, RSC (July 2014 – Present)
- Associate Editor, *Materials Advances*, RSC (July 2020 – Present)
- Editor, *Applied Surface Science* Elsevier (Jan. 2012 – June 2014)
- Managing Editor, *Int. J. Nanoscience* (2008–2009)
- Advisory Board Member, *Applied Surface Science*, *Ceramics International*, *Electronics*, *Int. J. Nanotech.*, *Res. Lett. Nanotech.*, *Nano Energy Advances*, *Nanomaterials*, *J. Exp. Nanoscience*, *J. of Nanotechnology*, *Open Appl. Phys. J.*, *J. Cryst. Phys. & Chem.*, *Nanomaterials & Nanotechnology*, *Rev. Adv. Sci. & Eng.*, *Nanomaterials & Nanosciences*, *Nanoenergy Advances*, *Frontiers of Chemical Science and Engineering (FCSE)*

## RESEARCH INTERESTS

Nanostructured Materials, Surface Science, Organic Electronics, Nanoelectronics, Quantum Dots, Supramolecular Assemblies, Biomaterials, Scanning Probe Microscopy, Multifunctional Materials, Functional Nanomaterials, Third Generation Solar Technologies, Photovoltaic Materials and Devices, Surface-Confined Reactions, Surface-Confined Polymerization, Materials for Energy Storage

## PUBLISHED WORKS

### BOOKS (4)

1. **F. Rosei**, “*La Strada Non Percorsa*”, Work of Fiction (Novel) in Italian, EAN: 9788845604003, ISBN: 8845604004, 288 pages, first published in 2000.
2. **F. Rosei**, T.W. Johnston, “*Survival Skills for Scientists*”, Imperial College Press (July 2006); Japanese version (2008).  
**Publisher’s description:** This book provides young scientists, from physicists through to sociologists, the counsel and tools that are needed to be their own agents and planners, to survive and succeed, hopefully even thrive in science. Making a good career based on peer-reviewed science means navigating many stressful phases from graduate school through to permanent employment. Performing artists pay agents to help them in this effort. In effect, this book is designed to allow you to act as your own agent. You are counseled to analyze yourself deeply to know clearly what you want and whether you can live with it, how to make career choices and what you should then keep in mind, when to fight and when to yield. The unwritten rules of the “science game” are explained, including how to become published and known, the pitfalls of peer review and how to evade them, papers and posters, job interviews and getting your science funded. Interspersed with this are illustrative anecdotes and a fair amount of humor. While the book is aimed at young scientists, from graduate students and beyond, more senior scientists will benefit from seeing the world from the point of view of rising scientists and become aware of the preoccupations of people in a system which has changed much from when the present senior scientists were rather younger.  
**Selected reviews:** *Materials Today* **10**(7–8), 53 (2007): “...the book offers a wealth of sound advice that will find applicability to the current choices, strategies, battles, and initiatives that face a scientist at any stage of his or her professional career... an exhaustive resource.”, *Science* **314**, 1245 (2006): “...thought provoking and packed with information...”. Additional reviews appeared in Choice, the Newsletter of the Society of General Physiology and Journal of Materials Education.
3. **A. Korkin, F. Rosei (Eds.)**, *Nanoelectronics and Photonics: From Atoms to Materials, Devices, and Architectures*, Nanostructure Science and Technology (series), Springer Pg Technology & Engineering / Nanotechnology / Lasers & Photonics / Electronics – Microelectronics, first published Oct 1<sup>st</sup>, 2008 (Hard cover), 2<sup>nd</sup> Edition May 1<sup>st</sup> 2009 (paperback), 3<sup>rd</sup> Edition Feb 1<sup>st</sup> 2010 (paperback) ISBN – 978-1-44192-6xx-x

**Publisher's description:** Nanoelectronics and Photonics provides a fundamental description of the core elements and problems of advanced and future information technology. The authoritative book collects a series of tutorial chapters from leaders in the field covering fundamental topics from materials to devices and system architecture, and bridges the fundamental laws of physics and chemistry of materials at the atomic scale with device and circuit design and performance requirements.

4. P. Grutter, W. Hofer, **F. Rosei** (Eds.), *Properties of Single Organic Molecules On Crystal Surfaces*, Imperial College Press – World Scientific (April 2006) – ISBN 978-1-86094-628-8

**Publisher's description:** Within nanoscience, an emerging discipline is the study of the physics and chemistry of *single molecules*. Molecules may be considered as the ultimate building blocks, and are therefore interesting for the development of molecular devices and for surface functionalization. Thus, it is interesting to study their properties when adsorbed on a suitable substrate such as a solid or crystal surface, and also for their potential applications in nano- or molecular-electronics and nanosensing. Investigations have been made possible by the advent of high resolution surface imaging and characterization techniques, commonly referred to as Scanning Probe Microscopes. This book focuses on the fascinating properties of the single molecules, and the difference between single molecules and ensembles of molecules is emphasized. As the first book intended for graduate courses in the field, after each chapter, students should be able to answer the question: “*What physical or chemical properties do you learn from a single molecule in this particular context?*” Contributed by experts across the disciplines, the book provides useful reference material for specialized practitioners in surface science, nanoscience and nanoelectronics.

## BOOK CHAPTERS (10)

10. D. Benetti, **F. Rosei**, “The role of carbon allotrope-based charge transport layers in enhancing the performance of perovskite solar cells,” in *Halide Perovskites for Photonics*, edited by A. Vinattieri and G. Giorgi (AIP Publishing, Melville, New York, 2021), pp. 4-1–4-38.
9. J.M. MacLeod, **F. Rosei**, “Supporting the Development and Deployment of Sustainable Energy Technologies Through Targeted Scientific Training”, Ch. 20, pp. 231–233 in *Sustainable Access to Energy in the Global South*, edited by Silvia Hostettler, Ashok Gadgil and Eileen Hazboun, Springer (2015).
8. K.R. Moonosawmy, J.M. MacLeod, **F. Rosei**, “STM Characterization of Supramolecular Materials with Potential for Organic Electronics and Nanotechnology” in *Functional Supramolecular Architectures*, edited by Paolo Samori and Franco Cacialli. Vol. 1, pp. 457-490. Wiley-VCH Verlag GmbH & Co. KGaA, Weinheim (2011).
7. J.M. MacLeod, **F. Rosei**, “Directed Assembly of Nanostructures” in *Comprehensive Nanoscience and Technology*, edited by D. Andrews, G. Scholes and G. Wiedderecht, Vol. 3, pp. 13-68. Elsevier, Amsterdam (2010).
6. C. Santato, F. Cicoira, **F. Rosei**, “Self-assembly of thiophene-based materials: a scanning tunneling microscopy perspective” in *Thiophene Based Materials for Electronics and Photonics*, Ed.s I.F. Perepichka and D.F. Perepichka, Wiley and Sons, 517–547 (2009).
5. C.V. Cojocaru, F. Cicoira, **F. Rosei**, “Alternative Nanofabrication Approaches for Non-CMOS Applications” in *Nanofabrication: Fundamentals and Applications*, pp. 499-542, Ed. A.A. Tseng, World Scientific (2008).
4. J.A. Miwa, **F. Rosei**, “Molecular Self-Assembly: Fundamental Concepts and Applications” in *The MEMS Handbook 2<sup>nd</sup> Edition*, Ed. M. Gad El Hak, Taylor and Francis (2005).
3. **F. Rosei**, R. Rosei, “Scanning Tunneling Microscopy Studies of Elementary Surface Processes”, in *Science, Technology and Education of Microscopy, An Overview*, Vol. I, pp. 24–33 (2003).
2. **F. Rosei**, “Scanning Probe Microscopy studies of Ge/Si surfaces”, in *Science, Technology and Education of Microscopy, An Overview*, Vol. I, pp. 84–92 (2003).
1. M. Schunack, **F. Rosei**, F. Besenbacher, “The Scanning Tunneling Microscope as a Unique Tool to Investigate the Interaction Between Complex Molecules and Metal Surfaces”, in *Science, Technology and Education of Microscopy, An Overview*, Vol. I, pp. 43–51 (2003).

## PATENTS (4)

### 1) Luminescent solar concentrator using a metal-free emitter (INRS/UESTC)

PCT/CA2018/050176 Patent pending (filed 2018-02-16, published 2018-08-23, International Publication Number WO2018/148837 A1)

Inventors: Ma, Dongling; INRS; **Rosei, Federico**; INRS; Wang, Zhiming M.; University of Electronic Science and Technology of China (UESTC); Tong, Xin (PhD student); Jin, Lei (PhD); Zhao, Haiguang (postdoc); Zhou, Yufeng (PhD); Benetti, Daniele (PhD student);

### 2) Combined PN Junction and Bulk Photovoltaic Device (Granted)

Patent issued on 2014-12-09 US 8,907,205 B2 (filed in 2011-06-16, published in 2012-01-26)

Canadian patent application: CA 2,743,346 A1 (filed in 2011-06-16, published in 2011-12-18)

Inventors: Ruediger, Andreas; INRS; **Rosei Federico**; INRS; Nechache, Riad (postdoc);

### 3) Nanothermometer

PCT patent application: WO2016015146 A1 (filed in 2015-07-27, published in 2016-02-04)

US patent application: US2017/0248477 A1 (filed in 2017-01-26, published in 2017-08-31)

Canadian patent application: CA2955094 A1 (filed in 2017-01-13, identical to the PCT)

Inventors: **Federico Rosei**; INRS; Haiguang Zhao (postdoc); Alberto Vomiero (Researcher);

**4) Thin film coating and method of fabrication thereof (Plasmionique) (Granted)**

US patent application: US 15/840,407. (filed in 2017-12-13, published in 2019-06-13)

Inventors: MacLeod, Jennifer; INRS; Nechache, Riad; INRS; Pépin, Henri; INRS; **Rosei, Federico**; INRS; Nouar, Rafik; Plasmionique inc.; Sarkissian, Andranik; Plasmionique inc.; Benetti, Daniele (PhD student).

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4. M. Chaker, **F. Rosei\***, 'Materials Research in Africa: Rising from the Falls', *Nature Materials* **11**, 187 (2012).
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1. **F. Rosei**, 'Favouritism in Physics?' (Correspondence), *Nature* **416**, 123 (2002).

## EDITORIALS (4)

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3. **F. Rosei**, Editorial, *Int. J. Nanotech.*, Special Issue: 'Nano' in Canada, vol. **5**, 897 (2008).
2. **F. Rosei**, Editorial, "Nanoelectronics and photonics: from atoms to materials, devices and system architecture", F. Rosei and A. Korkin Ed.s, *Springer* ISBN: 978-0-387-76498-6 (2008).
1. P. Grütter, W.A. Hofer, **F. Rosei**, Editorial, "Properties of Single Molecules at Crystal Surfaces", Imperial College Press – World Scientific (April 2006).

## JOURNAL ARTICLES (460)<sup>1</sup>

**Citation metrics: H-index – 78, i-10 index – 349, Total Citations – 22,830 (Google Scholar June 20<sup>th</sup>, 2023)**

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459. H. Peng, F. Hu, L. Yao, S. Liu, J. Jiang, P. Yi, L. Sun, Y. Zou, H. Zhang, G. Zhu, P. Cai, F. Xu, G. Wang, **F. Rosei**, X. Lu, Efficient electrochemical energy storage designed by second alcoholic fermentation of rice, *J. Energy Storage* **70**, 108060 (2023).
458. Y. Bu, L. Sun, F. Xu, S. Wei, **F. Rosei**, Y. Luo, Z. Liu, J. Liu, C. Zhang, Y. Yao, Highly active bimetallic MOF derivatives for improving the dehydrogenation performance of LiAlH<sub>4</sub>, *J. Alloys and Comp.* **961**, 170897 (2023).
457. A. Baqaei; A.A. Sabbagh Alvani, H. Sameie, **F. Rosei**, Role of pH in the Hydrothermal Synthesis of TiO<sub>2</sub> Nanorod Photocatalysts, *Chemistry Select*, *in press* (2023).
456. C. Wang, Q. Cheng, M. Wang, S. Liu, Y. He, C. Deng, Y. Sun, T. Qian, **F. Rosei**, C. Yan, Asymmetric electrode design with built-in nitrogen transfer channel achieving maximized three-phase reaction region for electrochemical ammonia synthesis, *Electron*, *in press* (2023).
455. X. Liu, J. Liu, L. Jin<sup>†</sup>, D. Benetti<sup>†</sup>, **F. Rosei\***, Color-tunable multilayered laminated luminescent solar concentrators based on colloidal quantum dots, *Nano Energy* **111**, 108438 (2023).
454. J. Ye, D. Zhang, S. Salli, Y. Li, F. Han, Y. Mai, **F. Rosei**, Y. Li, Y. Yang, F. Besenbacher, H. Niemantsverdriet, E. Richards, R. Su\*, Heterogeneous Photocatalytic Recycling of FeX<sub>2</sub>/FeX<sub>3</sub> for Efficient Halogenation of C-H Bonds Using NaX, *Angew. Chem.* **62**, e202302994 (2023).
453. Y. Li, D. Zhang, J. Ye, Y. Mai, C. Wang, Y. Yang, Y. Li, F. Besenbacher, H. Niemantsverdriet, **F. Rosei**, F. Pan, R. Su\*, A Modular Tubular Flow System with Replaceable Photocatalyst Membranes for Scalable Coupling and Hydrogenation, *Angew. Chem.* **62**, e202302979 (2023).
452. L. Jin<sup>†</sup>, J. Liu, X. Liu, D. Benetti<sup>†</sup>, G.S. Selopal, X. Tong, E. Hamzehpoor, F. Li, D.F. Perepichka, Z.M. Wang, **F. Rosei\***, Rational Control of Near-Infrared Colloidal Thick-Shell AgInSe<sub>2</sub>/AgInS<sub>2</sub> Quantum Dots for Solar Energy Conversion, *Small Meth.*, *in press* (2023).
451. L. Shi, D. Benetti<sup>†</sup>, Q. Wei, **F. Rosei\***, MOF-derived In<sub>2</sub>O<sub>3</sub>/CuO p-n heterojunction photoanode incorporating graphene nanoribbon for solar hydrogen generation, *Small*, *in press* (2023).
450. N.P. Genesh, D. Cui, D. Dettmann, O. MacLean, T.K. Johal<sup>†</sup>, A.V. Lunchev, A.C. Grimsdale, **F. Rosei\***, Selective Self-Assembly and Modification of Herringbone Reconstructions at a Solid-Liquid Interface of Au(111), *J. Phys. Chem. Lett.* **14**, 3057–3062 (2023).

<sup>1</sup> Students are underlined, post-docs are marked by a <sup>†</sup>. The corresponding authors are indicated with an \*.

449. G. Li, A. Akbar, L.W. Zhang, **F. Rosei**, K.M. Liew, Surface modification strategy for controlling wettability and ionic diffusion behaviors of calcium silicate hydrate, *Appl. Surf. Sci.* **622**, 156993 (2023).
448. **F. Rosei**, HOW TO 'SURVIVE' AFTER GRADUATING IN MATERIALS SCIENCE - VII: Writing Cover Letters for Top Journals, *J. Mater. Ed.*, *in press* (2023).
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442. F. Han, Feiyu, D. Zhang, S. Salli, J. Ye, Y. Li, **F. Rosei**, X.-D. Wen, H. Niemantsverdriet, E. Richards, R. Su\*, Copper Cocatalyst Modulated Radical Generation for Selective Heterogeneous Photosynthesis of  $\alpha$ -Haloketones, *ACS Cat.* **13**, 248–255 (2023).
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1. F. Boscherini, G. Capellini, L. Di Gaspare, F. Rosei, N. Motta, S. Mobilio, Ge–Si intermixing in Ge quantum dots on Si(001) and Si(111), *Appl. Phys. Lett.* **76**, 682–684 (2000).

## INVITED, KEYNOTE AND PLENARY INTERNATIONAL CONFERENCE PRESENTATIONS (356)

Plenary: 26, Keynote: 50, Tutorial: 11, Panelist: 5

356. F. Rosei (**Keynote**), *Multi-functional Materials for Emerging Sustainable Technologies*, ICNRD-2023, Singapore, Dec. 2023.
355. F. Rosei, *Multi-functional Materials for Emerging Sustainable Technologies*, PACRIM 15, Shenzhen (China), Nov. 2023.
354. F. Rosei, *Multi-functional Materials for Emerging Sustainable Technologies*, IEEE NMDC, Paestum (Italy), Oct. 2023.
353. F. Rosei, *Multi-functional Materials for Emerging Sustainable Technologies*, MS&T, Columbus (OH), Oct. 2023.
352. F. Rosei (**Keynote**), *Multi-functional Materials for Emerging Sustainable Technologies*, Chinanano, Beijing Aug. 2023.
351. F. Rosei, *Multi-functional Materials for Emerging Sustainable Technologies*, IMRC Cancun (Mexico), Aug. 2023.
350. F. Rosei (**Keynote**), *Multi-functional Materials for Emerging Sustainable Technologies*, IEEE 3M-Nano, Chengdu (China), Aug. 2023.
349. F. Rosei, *Solution Processed Nanomaterials for Solar Technologies*, ICMAT Symposium U, Singapore, June 2023.
348. F. Rosei, *Multi-functional Materials for Emerging Sustainable Technologies*, ICMAT Symposium W, Singapore, June 2023.
347. F. Rosei, *Multi-functional Materials for Emerging Sustainable Technologies*, 6<sup>th</sup> International Conference on Nanoenergy and Nanosystems (NENS), Beijing (China), June 2023.
346. F. Rosei, *Sustainable Development: Is it a contradiction in terms?*, *John Wheatley Award Talk*, APS April Meeting, Minneapolis, April 2023 (originally planned in March 2019, postponed due to health problems).
345. F. Rosei, *Surface confined conjugated polymers: organic analogues of graphene*, 2021 Gordon Research Conference: Chemical Reactions at Surfaces, Barga (Italy), Feb. 2023. (**post-poned to 2023 due to Corona Virus pandemic**).
344. F. Rosei, *Survival Skills for Scientists*, American Ceramic Society Winter Workshop, Daytona Beach, Jan. 2023.
343. F. Rosei (**Keynote**), *Multi-functional Materials for Emerging Technologies*, MRS Africa, Dakar (Senegal), Dec. 2022.
342. F. Rosei (**Keynote**), *Multi-functional Materials for Emerging Technologies*, Nano Africa, Cape Town (S. Africa), Oct. 2022.
341. F. Rosei (**Plenary**), *Materials for Sustainability and Sustainable Materials*, International Conference on Materials Science (3d-ICOMAS), Verona (Italy), Oct. 2022.
340. F. Rosei, *Nanoscale structure and modification of Biomaterials*, MS&T, Pittsburgh (PA), Oct. 2022. (Cancelled due to health problems)
339. F. Rosei, *Multi-functional Materials for Emerging Technologies*, MS&T, Pittsburgh (PA), Oct. 2022. (Cancelled due to health problems)
338. F. Rosei, *Materials for Sustainability and Sustainable Materials*, Physics for Sustainable Development, Rome (Italy), Sept. 2022.
337. F. Rosei, *Multi-functional Materials for Emerging Technologies*, iPlasma Nano, Seville (Spain) Sept. 2022 (Virtual).
336. F. Rosei, *Multi-functional Materials for Emerging Technologies*, Photorefractive Photonics and Beyond (PR22), Padova (Italy), Sept. 2022.
335. F. Rosei, *Multi-functional Materials for Emerging Technologies*, IMRC, Cancun (Mexico), Aug. 2022.
334. F. Rosei, (**Tutorial**) *Survival Skills for Scientists*, IMRC, Cancun (Mexico), August 2022.
333. F. Rosei, *Survival Skills for Scientists*, Student Evening at the European Ceramic Society, Krakow (Poland) July 2022.
332. F. Rosei (**Plenary**), *Multi-functional Materials for Emerging Technologies*, International Conference on Frontier Materials, Zhuhai (China), May 2022 (**Virtual**).
331. F. Rosei, *Multi-functional Materials for Emerging Technologies*, SPIE Photonics West, San Francisco, Jan. 2022
330. F. Rosei, *Multi-functional Materials for Emerging Technologies*, PACRIM 14, Vancouver, Dec. 2021 (**post-poned due to Corona Virus pandemic; held as virtual event**).
329. F. Rosei, *Nanoscale structure and modification of Biomaterials*, PACRIM 14, Vancouver, Dec. 2021 (**post-poned due to Corona Virus pandemic; held as virtual event**).
328. F. Rosei, *Multi-functional Materials for Emerging Technologies*, MS&T, Columbus (OH), Oct. 2021 (**Virtual** participation).
327. F. Rosei, (**Plenary**) *Multi-functional Materials for Emerging Technologies*, 3<sup>rd</sup> World Congress & Expo on Chemical Engineering & Catalysis, Montreal, July 2020. (**post-poned due to Corona Virus pandemic**).
326. F. Rosei, *Multi-functional Materials for Emerging Solar Technologies*, 1<sup>st</sup> Pan American Ceramics Congress, Panama, July 2020. (**post-poned due to Corona Virus pandemic**).
325. F. Rosei, *Nanoscale structure and modification of Biomaterials*, 1<sup>st</sup> Pan American Ceramics Congress, Panama, July 2020. (**post-poned due to Corona Virus pandemic**)

324. F. Rosei, *Multi-functional Materials for Emerging Technologies*, XVI Congreso Internacional de Investigación Científica (**Virtual** / Dominican Republic), June 2021.
323. F. Rosei, (**Plenary**) *Multi-functional Materials for Emerging Technologies*, International Conference and Exhibition on Nanotechnology, Dubai (UAE), June 2020. (**post-poned** due to Corona Virus pandemic)
322. F. Rosei, *Multi-functional Materials for Emerging Solar Technologies*, THERMEC, Vienna (Austria), May 2020 (**post-poned** due to Corona Virus pandemic).
321. F. Rosei, *Multi-functional Materials for Emerging Solar Technologies*, EMRS Symposium on Exotic materials and innovative concepts for photovoltaics, Strasbourg (France) May 2020 (**post-poned** to 2021 due to Corona Virus pandemic; Virtual event).
320. F. Rosei, *The role of science and technology in promoting sustainable development*, 2020 Forum on Science, Technology and Sustainable Development for the Better Future of Humankind, Nanjing, May 19-22, 2020. (**post-poned** due to Corona Virus pandemic).
319. F. Rosei, (**Keynote**) *Multi-functional Materials for Emerging Technologies*, 5<sup>th</sup> International Conference on Nanomaterials, Nanodevices, Fabrication and Characterization (ICNNFC'20), Lisbon (Portugal), April 2020. (**post-poned** due to Corona Virus pandemic).
318. F. Rosei, (**Keynote**) *Multi-functional Materials for Emerging Technologies*, International Conference on Nano Research and Development, Singapore, March 2020. (**post-poned** due to Corona Virus epidemic).
317. F. Rosei, (**Keynote**) *Multi-functional Materials for Emerging Technologies*, 2<sup>nd</sup> Sharjah Conference on Physics of Materials (SICPAM 2020), UAE, March 2020. (**post-poned** due to Corona Virus epidemic).
316. F. Rosei, *Multi-functional Materials for Emerging Solar Technologies, John Wheatley Award Talk*, APS March Meeting, Denver, March 2020 (rescheduled); (**post-poned** due to Corona Virus epidemic).
315. F. Rosei, *Multi-functional Materials for Emerging Technologies*, SPIE Photonics West, San Francisco, Feb. 2020 (my participation was canceled due to Corona Virus epidemic).
314. F. Rosei, *Multi-functional Materials for Emerging Solar Technologies*, ICACCS 44, Daytona Beach, Jan. 2020.
313. F. Rosei, *Nanoscale structure and modification of Biomaterials*, ICACCS 44, Daytona Beach, Jan. 2020.
312. F. Rosei, (**Plenary**) *Multi-functional Materials for Emerging Technologies*, African MRS, Arusha (Tanzania), Dec. 2019.
311. F. Rosei, (**Plenary**) *Nanoscale structure and modification of Biomaterials*, IEEE NANOMED, South Korea, Nov. 2019.
310. F. Rosei, (**Plenary**) *Multi-functional Materials for Emerging Technologies*, 17<sup>th</sup> Chinese Young Materials Science Conference, Shanghai, Nov. 2019.
309. F. Rosei, *Multi-functional Materials for Emerging Technologies*, European Academy of Sciences Annual Meeting, Madrid, October 2019. (*Blaise Pascal Medal in Materials Award Lecture*).
308. F. Rosei, *Multi-functional Materials for Emerging Technologies*, 236<sup>th</sup> ECS Meeting, Atlanta (GA, USA), Oct. 2019.
307. F. Rosei, *Multi-functional Materials for Emerging Technologies*, Optics and Applications to Sustainable Development, Carthage (Tunisia), Sept. 2019.
306. F. Rosei, (**Tutorial**) *Survival Skills for Scientists*, IMRC, Cancun, August 2019.
305. F. Rosei, *Nanoscale structure and modification of Biomaterials*, 7<sup>th</sup> International Symposium on Surfaces and Interfaces for Biomaterials, Quebec City (Canada), July 2019.
304. F. Rosei, *Nanoscale structure and modification of Biomaterials*, GFMAT-2 / Bio-4, Toronto (Canada), July 2019.
303. F. Rosei, *Multi-functional Materials for Emerging Technologies*, Energy, Materials and Photonics (EMP) Conference, Shanghai, July 2019.
302. F. Rosei, (**Keynote**) *Multi-functional Materials for Emerging Technologies*, IEEE INEC, Kuching (Malaysia), July 2019.
301. F. Rosei, *Multi-functional Materials for Solar Technologies*, ICMAT Symposium P, Singapore, June 2019.
300. F. Rosei, *Multi-functional Materials for Emerging Technologies*, ICMAT Symposium II, Singapore, June 2019.
299. F. Rosei, (**Plenary**) *Multi-functional Materials for Electronics and Photonics*, 5<sup>th</sup> Global Congress & Expo on Materials Science & Engineering, Osaka (Japan), June 2019 (Cancelled due to health problems).
298. F. Rosei, (**Keynote**) *Nanoscale structure and modification of Biomaterials*, CICC-11, Kunming (China), May 2019. (the lecture was given by one of my students, due to health problems).
297. F. Rosei, (**Keynote**) *Multiferroic photovoltaics: challenges and opportunities*, CICC-11, Kunming (China), May 2019. (the lecture was given by one of my students, due to health problems).
296. F. Rosei, *Multi-functional Materials for Electronics and Photonics*, Qingdao International Academician Summit, Qingdao, May 2019.
295. F. Rosei, *Nanoscale structure and modification of Biomaterials*, TMS Meeting, San Antonio, March 2019. (the lecture was given by one of my students, due to health problems).
294. F. Rosei, *Multi-functional Materials for Emerging Solar Technologies, John Wheatley Award Talk*, APS March Meeting, Boston, March 2019 (postponed due to health problems).
293. F. Rosei, *Multiferroic photovoltaics: challenges and opportunities*, SPIE Photonics West, San Francisco, Feb. 2019 (Cancelled due to health problems).
292. F. Rosei, *Multi-functional Materials for Emerging Solar Technologies*, ICACCS 43, Daytona Beach, Jan. 2019.
291. F. Rosei, *Nanoscale structure and modification of Biomaterials*, ICACCS 43, Daytona Beach, Jan. 2019.

290. F. Rosei, **(Plenary)** *Multi-functional Materials for Emerging Solar Technologies*, V<sup>th</sup> National Congress of Nanotechnology (CNN5), Pucon, Chile, Nov. 2018.
289. F. Rosei, **(Plenary)** *Multi-functional Materials for Emerging Solar Technologies*, NANOSMAT Africa, Cape Town (South Africa), Nov. 2018.
288. F. Rosei, *Multi-functional Materials for Electronics and Photonics*, 11<sup>th</sup> International Photonics and OptoElectronics Meetings (POEM 2018), Wuhan (China), Oct. 2018.
287. F. Rosei, **(Keynote)** *Multi-functional Materials for Emerging Solar Technologies*, Asia NANO 2018, Qingdao (China), Oct. 2018.
286. F. Rosei, *Structure / property relationships in Biomaterials at the nanoscale*, MS&T Conference, Columbus, Oct. 2018.
285. F. Rosei, *Multi-functional Materials for Electronics and Photonics*, Americas International Meeting on Electrochemistry and Solid State Science (ECS Meeting), Cancun, Oct. 2018.
284. F. Rosei, *Multi-functional Materials for Solar Technologies*, CCMST 2018, Beijing, Sept. 2018.
283. F. Rosei, *Multi-functional Materials for Solar Technologies*, Symposium on Solar Hydrogen Production, IMRC (Cancun), Aug. 2018.
282. F. Rosei, **(Tutorial)** *Survival Skills for Scientists*, IMRC, Cancun, August 2018.
281. F. Rosei, **(Keynote)** *Multi-functional Materials for Emerging Technologies*, ICANM2018: 6<sup>th</sup> International Conference and Exhibition on Advanced & Nano Materials, Quebec City, Aug. 2018.
280. F. Rosei, *Multi-functional Materials for Solar Technologies*, Symposium on Emerging Materials and Technologies for Solar Cells and Solar Fuel Technologies, 12<sup>th</sup> International Conference on Ceramic Materials and Components for Energy and Environmental Applications (CMCEE), Singapore, July 2018.
279. F. Rosei, *Structure / property relationships in Biomaterials at the nanoscale*, Symposium on Global Innovations in Biomaterials, Biomanufacturing, and Biotechnologies, 12<sup>th</sup> International Conference on Ceramic Materials and Components for Energy and Environmental Applications (CMCEE), Singapore, July 2018.
278. F. Rosei, *Multi-functional Materials for Emerging Solar Technologies*, Asia-Pacific Conference on Energy Storage and Conversion, Singapore July 2018.
277. F. Rosei, *Organic 2D Materials*, European MRS, Strasbourg (France), June 2018.
276. F. Rosei, **(Keynote)** *Multi-functional Materials for Electronics and Photonics*, 3<sup>rd</sup> Global Congress & Expo on Materials Science & Engineering, Rome (Italy), June 2018.
275. F. Rosei, **(Plenary)** *Multi-functional Materials for Emerging Technologies*, EMN Chengdu (China), May 2018.
274. F. Rosei, *Multi-functional Materials for Electronics and Photonics*, CMOS Emerging Technologies, Whistler, May 2018.
273. F. Rosei, **(Keynote)** *Graphene and its use in biomedical and energy applications*, 5<sup>th</sup> International Forum on Graphene, Shenzhen (China), April 2018.
272. F. Rosei, *Structure / property relationships in Biomaterials at the nanoscale*, MRS Spring Meeting, Phoenix (AZ), April 2018.
271. F. Rosei, **(Keynote)** *Multi-functional Materials for Emerging Solar Technologies*, Innovations and Interdisciplinary Solutions For Underserved Areas, Kigali (Rwanda), March 2018.
270. F. Rosei, *Nanoscale structure and modification of Biomaterials*, TMS 2018, Phoenix (AZ), March 2018.
269. F. Rosei, *Nanoscale structure and modification of Biomaterials*, ICACCS 42, Daytona Beach, Jan. 2018.
268. F. Rosei, *Multi-functional Materials for Emerging Solar Technologies*, IEEE INEC, Kuala Lumpur (Malaysia), Jan. 2018.
267. F. Rosei, *Survival Skills for Scientists*, Symposium on Materials Education and Curriculum Development, African MRS, Gaborone (Botswana), Dec. 2017.
266. F. Rosei, *Multi-functional Materials for Emerging Solar Technologies*, Canada / South Africa Networking Workshop, iThemba Labs (Cape Town), Dec. 2017.
265. F. Rosei, **(Plenary)** *Survival Skills for Scientists*, CICC–10, Nanchang (China), Nov. 2017.
264. F. Rosei, **(Plenary)** *Multi-functional Materials for Electronics and Photonics*, CICC–10, Nanchang (China), Nov. 2017.
263. F. Rosei, **(Keynote)** *Multi-functional Materials for Electronics and Photonics*, ACTSEA 2017, Kaohsiung (Taiwan), Nov. 2017.
262. F. Rosei, *Survival Skills for Scientists*, TED<sup>x</sup> NANO, Chinese Academy of Science, Beijing (China), Oct. 2017.
261. F. Rosei, *Multi-functional Materials for Solar Technologies*, 3<sup>rd</sup> International Conference on Nanoenergy and Nanosystems, Oct. 2017, Beijing (China).
260. F. Rosei, **(Plenary)** *Multi-functional Materials for Electronics and Photonics*, 13<sup>th</sup> IUPAC International Conference on Novel Materials and their Synthesis, Nanjing (China), Oct. 2017.
259. F. Rosei, *Nanoscale structure and modification of Biomaterials*, MS&T Conference, Pittsburgh (PA), Oct. 2017.
258. F. Rosei, *Multi-ferroic Materials for Solar Technologies*, Workshop on *New Horizons in Photovoltaics: Polar, Topological, Ferroelectric, Hot Carriers*, University of Pennsylvania, Philadelphia (PA), 31 Aug.–01 Sept. 2017
257. F. Rosei, *New Reactions in Surface Chemistry*, Nanoscale Horizons Symposium, China Nano, Beijing, August 2017.
256. F. Rosei, **(Keynote)** *Multi-ferroic Materials for Solar Technologies*, China Nano, Beijing, August 2017.
255. F. Rosei, **(Keynote)** *Multi-ferroic Materials for Solar Technologies*, IUMRS–ICAM, Kyoto (Japan), August 2017.
254. F. Rosei, **(Tutorial)** *Survival Skills for Scientists*, IMRC, Cancun, August 2017.
253. F. Rosei, **(Keynote)** *Multi-functional Materials for Electronics and Photonics*, NANOMXCN Workshop, IMRC Cancun, Aug. 2017.

252. F. Rosei, (**Keynote**) *Multi-ferroic Materials for Solar Technologies*, IEEE 3M Nano, Shanghai, Aug. 2017.
251. F. Rosei, *Surface polymerization using the Ullmann coupling reaction*, Symposium on Molecular Phenomena at Surfaces, University of Warwick, Coventry (UK), July 27<sup>th</sup> 2017.
250. F. Rosei, *Exploring Molecular Assembly at Surfaces*, Faraday Discussion meeting on *Complex Molecular Surfaces and Interfaces*, Sheffield (UK), July 2017.
249. F. Rosei, (**Panelist**), *Science and Innovation and their contribution to the Sustainable Development Goals*, Conference of the UNESCO Chairs in Natural Sciences, Geneva, July 2017.
248. F. Rosei, *Multi-functional Materials for Electronics and Photonics*, ICMAT, Singapore June 2017.
247. F. Rosei, (**Panelist**), *Industrial applications of Graphene*, 2<sup>nd</sup> International Forum on the Industrialization of Graphene, Chengdu, June 2017.
246. F. Rosei, (**Plenary**) *Graphene and its use in biomedical and energy applications*, 2<sup>nd</sup> International Forum on the Industrialization of Graphene, Chengdu, June 2017.
245. F. Rosei, *Nanoscale structure and modification of Biomaterials*, PACRIM 12, Kona (HI), May 2017.
244. F. Rosei, *Multi-functional Materials for Electronics and Photonics*, EMN Conference on Metamaterials, Chengdu, May 2017.
243. F. Rosei, *Polymerization reactions confined to two dimensions*, ACS Spring Meeting, San Francisco, April 2017.
242. F. Rosei, *Exploring Molecular Assembly at Surfaces*, ACS Spring Meeting, San Francisco, April 2017.
241. F. Rosei, (**Keynote**) *Graphene and its use in biomedical and energy applications*, 4<sup>th</sup> International Forum on Graphene, Shenzhen (China), April 2017.
240. F. Rosei, (**Keynote**) *Multi-functional Materials for Solar Technologies*, TMS Annual Meeting, San Diego (CA), Feb. 2017.
239. F. Rosei, (**Keynote**) *Emerging Solar Technologies*, XVI World Renewable Energy Congress, Perth (Australia), Feb. 2017.
238. F. Rosei, *Multi-functional Materials for Solar Technologies*, SPIE Photonics West, San Francisco (CA), Feb. 2017.
237. F. Rosei, *Multi-functional Materials for Electronics and Photonics*, ICACCS 41, Daytona Beach (FL), Jan. 2017.
236. F. Rosei, *Nanoscale structure and modification of Biomaterials*, ICACCS 41, Daytona Beach (FL), Jan. 2017.
235. F. Rosei, *Exploring Molecular Assembly at Surfaces*, Advanced Microscopy and Spectroscopy of Supramolecular and Macromolecular Systems on Surfaces, Hong Kong, Dec. 2016.
234. F. Rosei, *Multi-functional Materials for Electronics and Photonics*, Asian Meeting on Ferroelectricity, Delhi (India), Nov. 2016.
233. F. Rosei, (**Panelist**), *Biomaterials Processing*, MS&T Conference, Salt Lake City (UT), Oct. 2016.
232. F. Rosei, *Nanoscale Surface Modification of Biomaterials*, MS&T Conference, Salt Lake City (UT), Oct. 2016.
231. F. Rosei, (**Plenary**) *Multi-functional Materials for Electronics and Photonics*, IUPAC NMS-XII, Changsha (China), Oct. 2016.
230. F. Rosei, (**Plenary, Opening Lecture**) *Multi-functional Materials for Electronics and Photonics*, ACSIN, Rome (Italy), Oct. 2016.
229. F. Rosei, *Multi-functional Materials for Electronics and Photonics*, 230<sup>th</sup> ECS / PRiME meeting, Honolulu (HI) Oct. 2016.
228. F. Rosei, *Multi-functional Materials for Electronics and Photonics*, Advanced Architectures in Photonics, Mykonos (Greece), Sept. 2016.
227. F. Rosei, (**Tutorial**) *Survival Skills for Scientists*, IMRC, Cancun (Mexico), August 2016.
226. F. Rosei, (**Keynote**) *Multi-functional Materials for Electronics and Photonics*, Nano 2016, Quebec City, Aug. 2016.
225. F. Rosei, (**Tutorial**) *Survival Skills for Scientists, Colloge on multiscale computational modeling of materials for energy applications*, ICTP (Trieste), July 2016.
224. F. Rosei, *Multi-functional Materials for Electronics and Photonics*, ICEM 2016, Singapore, July 2016.
223. F. Rosei, *Survival Skills for Scientists*, 9<sup>th</sup> Int. Conf. on High T ceramic matrix composites, Toronto (Canada), June 2016.
222. F. Rosei, *Multi-functional Materials for Electronics and Photonics*, 9<sup>th</sup> Int. Conf. on High T ceramic matrix composites, Toronto (Canada), June 2016.
221. F. Rosei, (**Panelist**), *Renewable Energy as a Motor for Development*, 2<sup>nd</sup> Africa / Canada Business Convention, Montreal, June 2016.
220. F. Rosei, *Multi-functional Materials for Electronics and Photonics*, IEEE INEC, Chengdu (China), May 2016.
219. F. Rosei, *Nanoscale structure and modification of Biomaterials*, MRS Spring Meeting, Phoenix (AZ), March 2016.
218. F. Rosei, *Multi-functional Materials for Electronics and Photonics*, MRS Spring Meeting, Phoenix (AZ), March 2016.
217. F. Rosei, (**Keynote**) *Multi-functional Materials for Electronics and Photonics*, 2<sup>nd</sup> World Congress of Smart Materials, Singapore, March 2016.
216. F. Rosei, *Multi-functional Materials for Electronics and Photonics*, SPIE Photonics West, San Francisco (CA), Feb. 2016.
215. F. Rosei, *Survival Skills for Scientists*, ICACCS 40, Daytona Beach (FL), Jan. 2016.
214. F. Rosei, *Nanoscale structure and modification of Biomaterials*, ICACCS 40, Daytona Beach (FL), Jan. 2016.
213. F. Rosei, (**Keynote**) *Multi-functional Materials for Electronics and Photonics*, The 19<sup>th</sup> SANKEN INTERNATIONAL SYMPOSIUM, Osaka (Japan), Dec. 2015.
212. F. Rosei, *Nanoscale Surface Modification of Biomaterials*, MRS Fall Meeting, Boston (MA), Nov. 2015.
211. F. Rosei, (**Plenary**) *Multi-functional Materials for Electronics and Photonics*, 3<sup>rd</sup> Zing Hydrogen and Fuel Cells Conference, Cancun (Mexico), Nov. 2015.

210. F. Rosei, *Energy and Society: What kind of Energy for the Future of Humanity?*, *Symposium on Peace Education*, Albert Einstein University, Mexico City (Mexico), Nov. 2015.
209. F. Rosei, **(Keynote)** *Multi-functional Materials for Electronics and Photonics*, IUMRS-ICAM, Jeju (South Korea), October 2015.
208. F. Rosei, *Carbon nanostructures and their use in biomedical and energy applications*, Graphene Canada (Montreal), Oct 2015.
207. F. Rosei, **(Plenary)** *Multi-functional Materials for Electronics and Photonics*, International Meeting on Advanced Materials and Processes for Environment, Energy and Health, Quebec City, October 2015.
206. F. Rosei, *Nanoscale Surface Modification of Biomaterials*, MS&T Conference, Columbus (OH), Oct. 2015.
205. F. Rosei, **(Keynote)** *Multi-functional Materials for Electronics and Photonics*, NanoS-E3, Kingscliff (Australia), Oct. 2015
204. F. Rosei, **(Keynote)** *Multi-functional Materials for Electronics and Photonics*, Annual Workshop on Nanotechnology, Renewable Energy & Sustainability, Xian (China), Sept. 2015.
203. F. Rosei, *Multi-functional Materials for Electronics and Photonics*, EMN Open Access Week, Chengdu (China), Sept. 2015.
202. F. Rosei, **(Keynote)** *Multi-functional Materials for Electronics and Photonics*, Trends in Nanotechnology, Toulouse (France), Sept. 2015.
201. F. Rosei, **(Keynote)** *Multi-functional Materials for Electronics and Photonics*, China Nano, Beijing, Sept. 2015.
200. F. Rosei, **(Tutorial)** *Survival Skills for Scientists*, SYNCHRONICS/ECME, Strasbourg (France), September 2015.
199. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale*, ECME 2015, Strasbourg (France), Sept. 2015.
198. F. Rosei, *Nanoscale structure and modification of Biomaterials*, PACRIM Bioceramics Symposium, Jeju Island (S. Korea), Aug. 2015.
197. F. Rosei, **(Tutorial)** *Survival Skills for Scientists*, IMRC, Cancun (Mexico), August 2015.
196. F. Rosei, *Multi-functional Materials for Electronics and Photonics*, META 2015, NYC, Aug. 2015.
195. F. Rosei, **(Keynote)** *Multi-functional Materials for Electronics and Photonics*, Molecular Materials Meeting, Singapore, Aug. 2015.
194. F. Rosei, *Multi-functional Materials for Electronics and Photonics*, Weekly Frontier Forum of Science, Chengdu (China), July 2015 (Cancelled due to health problems).
193. F. Rosei, *Survival Skills for Scientists*, ICMAT 2015 Symposium FF, Singapore, July 2015.
192. F. Rosei, *Multi-functional Materials for Electronics and Photonics*, ICMAT 2015 Symposium R, Singapore, July 2015.
191. F. Rosei, *The role of surfaces and interfaces in multifunctional materials*, Symposium on Advanced Multifunctional Nanomaterials and Systems for Photovoltaic and Photonic Technologies, CMCEE, Vancouver (Canada), June 2015.
190. F. Rosei, *Multi-functional Materials for Electronics and Photonics*, Symposium on Photovoltaic Materials, Devices, and Systems, CMCEE, Vancouver (Canada), June 2015.
189. F. Rosei, *Multi-functional Materials for Electronics and Photonics*, CMOS-ET, Vancouver (Canada), May 2015.
188. F. Rosei, *Multi-functional Materials for Electronics and Photonics*, EMN Optoelectronics, Beijing, April 2015 (Cancelled due to expired visa).
187. F. Rosei, **(Tutorial)** *Survival Skills for Scientists*, TMS, Orlando (FL), March 2015.
186. F. Rosei, **(Keynote)** *Multi-functional Materials for Electronics and Photonics*, TMS, Orlando (FL), March 2015.
185. F. Rosei, **(Keynote)** *Exploring Molecular Assembly at Surfaces*, AMN-7, Nelson (New Zealand), Feb. 2015.
184. F. Rosei, *Multi-functional Materials for Electronics and Photonics*, EMN/Ceramics, Orlando (FL), Jan. 2015.
183. F. Rosei, *Survival Skills for Scientists*, ICACCS 39, Daytona Beach (FL), Jan. 2015.
182. F. Rosei, *Multi-functional Materials for Electronics and Photonics*, ICACCS 39, Daytona Beach (FL), Jan. 2015.
181. F. Rosei, *Nanoscale structure and modification of Biomaterials*, ICACCS 39, Daytona Beach (FL), Jan. 2015.
180. F. Rosei, **(Plenary)** *Multi-functional Materials for Electronics and Photonics*, ISEPD, Kathmandu (Nepal) Jan. 2015.
179. F. Rosei, *Multi-functional Materials for Electronics and Photonics*, EMN Fall Meeting, Orlando (FL), Nov. 2014.
178. F. Rosei, *What type of Energy for the Future of Humanity? WCC J. Vasconcelos Award Lecture*, 31<sup>st</sup> World Cultural Council Award Ceremony and Aalto University Academic Summit, Espoo (Finland), Nov. 2014.
177. F. Rosei, *Multi-functional Materials for Electronics and Photonics*, ALC Annual Workshop, Rabat (Morocco), Nov. 2014. (Cancelled due to health problems).
176. F. Rosei, *Nanoscale Surface Modification of Biomaterials*, MS&T Conference, Pittsburgh (PA), Oct. 2014.
175. F. Rosei, *Multi-functional Materials for Electronics and Photonics*, EMN Open Access Week Meeting, Chengdu (Chengdu), Sept. 2014. (Cancelled due to health problems).
174. F. Rosei, *Multi-functional Materials for Electronics and Photonics*, NRES, Xian (China), Sept. 2014. (Cancelled due to health problems)
173. F. Rosei, **(Keynote)** *Multi-functional Materials for Electronics and Photonics*, PIERS Conference, Guangzhou (China), Aug. 2014.
172. F. Rosei, *Nanoscale Surface Modification of Biomaterials*, IMRC Cancun (Mexico), Aug. 2014.
171. F. Rosei, *Multi-functional Materials for Electronics and Photonics*, IMRC Cancun (Mexico), Aug. 2014.
170. F. Rosei, **(Keynote)** *Multi-functional Materials for Electronics and Photonics*, *International Symposium on Functional Materials*, Singapore, Aug. 2014. (Cancelled due to health problems).

169. F. Rosei, *Multi-functional Materials for Electronics and Photonics, International Symposium on Advanced Functional Materials*, Kuala Lumpur (Malaysia), Aug. 2014. (Cancelled due to health problems).
168. F. Rosei, *Multi-functional Materials for Electronics and Photonics, International Conference on Optical, Optoelectronic and Photonic Materials and Applications*, Leeds (UK), July 2014. (Cancelled due to health problems).
167. F. Rosei (**Keynote**) *Strategies for Controlled Assembly at the Nanoscale, UK Colloids 2014*, London (UK), July 2014.
166. F. Rosei, *Multi-functional Materials for Electronics and Photonics, CIMTEC 2014*, Montecatini (Italy), June 2014.
165. F. Rosei, *Exploring Molecular Assembly at Surfaces, Molecular Nanosystems Workshop*, Ascona (Switzerland), April 2014.
164. F. Rosei, *Multi-functional Materials for Electronics and Photonics, NGC 2014*, Phoenix (AZ), March 2014.
163. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, TMS 2014*, San Diego (CA), February 2014.
162. F. Rosei, *Multi-functional Materials and their use in photonic devices, Photonics West*, San Francisco (CA), February 2014.
161. F. Rosei, *Nanoscale Surface Modification of Biomaterials, 38<sup>th</sup> Int. Conf. on Advanced Ceramics and Composites*, Symposium on Next Generation Biomaterials, Daytona Beach (FL), Jan. 2014.
160. F. Rosei, *Multi-functional Materials and their use in photonic devices, I Nano Annual Meeting*, Aarhus (DK), Jan. 2014.
159. F. Rosei, *Nanoscale Surface Modification of Biomaterials, MRS Fall Meeting*, Boston (MA), Nov. 2013.
158. F. Rosei, *Using nanoscale building blocks to make electronic and photonic devices, THERMEC 2013*, Las Vegas (NV), Nov. 2013.
157. F. Rosei, *Multi-functional Materials and their use in photonic devices, 8<sup>th</sup> Multifunctional Materials (MFM) Workshop*, Ubatuba (Brazil), Nov. 2013.
156. F. Rosei, *Nanoscale Surface Modification of Biomaterials, MS&T Conference*, Montreal Oct. 2013.
155. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, Energy, Materials and Nanostructures (EMN)*, Chengdu (China), October 2013. (Cancelled due to health problems)
154. F. Rosei (**Keynote**) *Strategies for Controlled Assembly at the Nanoscale, 2<sup>nd</sup> International Conference on Materials Science*, Las Vegas (NV), October 2013.
153. F. Rosei (**Keynote**) *Multifunctional materials for electronics and photonics, Nano E3*, Airlie Beach (Australia), Sept. 2013.
152. F. Rosei (**Keynote**) *Strategies for Controlled Assembly at the Nanoscale, 15<sup>th</sup> ACC*, Singapore August 2013.
151. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, IMRC Cancun* (Mexico), August 2013.
150. F. Rosei, *Nanoscale Surface Modification of Biomaterials, PRICM 2013*, Waikoloa (HI), August 2013.
149. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, CMOS-ET*, Whistler (BC, Canada), July 2013.
148. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, ACIN*, Namur (Belgium), July 2013.
147. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, Symposium H, ICMAT 2013*, Singapore July 2013.
146. F. Rosei, *Functional materials and their electroactive properties, Symposium E, ICMAT 2013*, Singapore July 2013.
145. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, CCMR*, Jeju (S. Korea), June 2013.
144. F. Rosei, *Multi-functional Materials and their use in photonic devices, IC4N*, Corfu (Greece), June 2013.
143. F. Rosei, *New materials for photonics and photovoltaics, PACRIM 10*, San Diego (CA), June 2013.
142. F. Rosei, *Nanoscale Surface Modification of Biomaterials, PACRIM 10*, San Diego (CA), June 2013.
141. F. Rosei, *Functional materials and their electroactive properties, ECS Spring Meeting*, Toronto, May 2013.
140. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, TMS 2013*, San Antonio (TX), March 2013.
139. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, 37<sup>th</sup> Int. Conf. on Advanced Ceramics and Composites*, Symposium on Next generation Biomaterials, Daytona Beach (FL), Jan. 2013.
138. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, Energy, Materials and Nanostructures (EMN) West*, Houston (TX) Jan. 2013.
137. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, International Symposium on Functional Materials*, Perth (Australia), December 2012.
136. F. Rosei, *Multi-functional Materials and their use in photonic devices, IEEE Global Photonics Conference*, Singapore Dec. 2012.
135. F. Rosei, *Nanoscale Surface Modification of Biomaterials, MS&T Conference*, Pittsburgh (PA), Oct. 2012.
134. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, XI International Conference on Nanostructured Materials*, Rhodes (Greece), Aug. 2012.
133. F. Rosei, (**Tutorial**) *Survival Skills for Scientists, IMRC*, Cancun (Mexico), August 2012.
132. F. Rosei, *Exploring Molecular Assembly at Surfaces, IMRC Cancun* (Mexico), Aug. 2012.
131. F. Rosei, *Growth and characterization of multiferroic systems and their use in devices, 7<sup>th</sup> Multifunctional Materials Workshop*, Panama, Aug. 2012.
130. F. Rosei, *Time resolved nanoscale observation of amorphous semiconductor crystallization, Microscopy and Microanalysis*, Phoenix (AZ), Aug. 2012.
129. F. Rosei, *Materials Science in the Developing World: Challenges and Perspectives, 4<sup>th</sup> International Congress on Ceramics*, Chicago (IL), July 2012.
128. F. Rosei, *Survival Skills for Scientists, ICYMRS*, Singapore July 2012.
127. F. Rosei, *Multi-functional Organic Materials, International Workshop on Sensors and Electronic Devices*, Najran (Saudi Arabia), May 2012.

126. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale*, 4<sup>th</sup> Int. Conf. on Nanostructures, Kish (Iran) March 2012.
125. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale*, Third International Symposium on Plasma Nanoscience, Jurong (Malaysia), Feb. 2012.
124. F. Rosei, *Nanoscale Surface Modification of Biomaterials*, 36<sup>th</sup> Int. Conf. on Advanced Ceramics and Composites, Symposium on Next Generation Biomaterials, Daytona Beach (FL), Jan. 2012.
123. F. Rosei, *Survival Skills for Scientists*, Max Planck Discussion Meeting, Ringberg Castle (Germany) Jan. 2012.
122. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale*, Max Planck Discussion Meeting, Ringberg Castle (Germany) Jan. 2012.
121. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale*, MRS Africa, Victoria Falls (Zimbabwe), Dec. 2011.
120. F. Rosei, *Nanoscale Surface Modification of Biomaterials*, MRS Fall Meeting, Boston (MA), Nov. 2011.
119. F. Rosei, *Novel nanostructured functional materials*, MRS Fall Meeting, Boston (MA), Nov. 2011.
118. F. Rosei, *Nanoscale Surface Modification of Biomaterials*, MS&T 2011, Columbus (OH), Oct. 2011.
117. F. Rosei, *Exploring Molecular Assembly at Surfaces*, Nano E3 workshop and school, Stradbroke Island (Queensland, Australia), Sept. 2011.
116. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale*, IMRC 2011, Cancun (Mexico) 2011.
115. F. Rosei, **(Plenary)** *Novel nanostructured functional materials*, ISFM 2011, Sendai (Japan) August 2011.
114. F. Rosei, *Novel nanostructured functional materials*, PACRIM 2011, Cairns (Australia) July 2011.
113. F. Rosei, *Alternative Routes to Nanofabrication and Nanopatterning*, ICMAT 2011 Symp. H, Singapore June 2011.
112. F. Rosei, **(Keynote)** *Strategies for Controlled Assembly at the Nanoscale*, ICMAT 2011 Symp. JJ, Singapore June 2011.
111. F. Rosei, *Exploring Molecular Assembly at Surfaces*, IEEE INEC, Tao-Yuan, Taiwan, June 2011.
110. F. Rosei, *Exploring Molecular Assembly at Surfaces*, CMOS ET 2011, Whistler (BC, Canada), June 2011.
109. F. Rosei **(Plenary)** *Survival Skills for Scientists*, Inter Tech Conference for Young Scientists, Poznan (Poland), May 2011.
108. F. Rosei, *Nanoscale Surface Modification of Biomaterials*, Imagine Nano, Bilbao (Spain), April 2011.
107. F. Rosei, *Two dimensional self-assembly at the solid-liquid interface*, ACS Spring Meeting, Anaheim (CA), March 2011.
106. F. Rosei, *Survival Skills for Scientists*, COST Meeting, Hasselt (Belgium), March 2011.
105. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale*, COST Meeting, Hasselt (Belgium), March 2011.
104. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale*, 35<sup>th</sup> Int. Conf. on Advanced Ceramics and Composites, Nanotechnology Symposium, Daytona Beach (FL), Jan. 2011.
103. F. Rosei, *Modifying Biomaterial Surfaces to Control Cell Growth*, 35<sup>th</sup> Int. Conf. on Advanced Ceramics and Composites, Symposium on Next Generation Biomaterials, Daytona Beach (FL), Jan. 2011.
102. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale*, Molecular Materials Meeting, Singapore Jan. 2011.
101. F. Rosei, *Two dimensional molecular self-assembly at the solid-liquid interface*, Pacificchem 2010, Honolulu (HI), Dec. 2010.
100. F. Rosei, *Exploring Molecular Assembly at Surfaces: from non-covalent self-assembly to surface confined polymerization*, 18<sup>th</sup> International Colloquium on Scanning Probe Microscopy, Atagawa Heights (Japan), Dec. 2010.
99. F. Rosei, *Exploring Molecular Assembly at Surfaces*, NANO X, Rome (Italy), Sept. 2010.
98. F. Rosei, *Exploring Molecular Assembly at Surfaces*, ICEM–IUMRS Symp. T, Seoul (S. Korea), Aug. 2010.
97. F. Rosei, *Synthesis and characterization of 1D functional oxide nanostructures*, ICEM–IUMRS Symp. S, Seoul (S. Korea), Aug. 2010.
96. F. Rosei, *Multi-functional one dimensional oxide nanostructures*, Thin Films 2010, Harbin (China), July 2010.
95. F. Rosei, *Nanostructured Carbon: Challenges and Opportunities*, NDNC 2010, Suzhou (China) May 2010.
94. F. Rosei, *Photoluminescent Group IV nanostructures synthesized by reactive pulsed laser deposition*, ECS Spring Meeting, Vancouver (Canada), April 2010.
93. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale*, 34<sup>th</sup> Int. Conf. on Advanced Ceramics and Composites, Nanotechnology Symposium, Daytona Beach (FL), Jan. 2010.
92. F. Rosei, *Nanoscale Surface Modification of Biomaterials*, 34<sup>th</sup> Int. Conf. on Advanced Ceramics and Composites, Symposium on Next Generation Biomaterials, Daytona Beach (FL), Jan. 2010.
91. F. Rosei, **(Keynote)** *Strategies for Controlled Assembly at the Nanoscale*, IEEE International Nanoelectronics Conference, Hong Kong, Jan. 2010.
90. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale*, MRS Africa 2009, Abuja (Nigeria) Dec. 2009.
89. F. Rosei, *Exploring Molecular Assembly at Surfaces*, Entretiens Jacques Cartier, Grenoble (France), Dec. 2009.
88. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale*, Entretiens Jacques Cartier, Lyon (France), Nov. 2009.
87. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale*, ACTSEA-2009, Taipei (Taiwan), Nov. 2009.
86. F. Rosei, *Survival Skills for Scientists*, 4<sup>th</sup> IWSP, Wroclaw (Poland) Sept. 2009.
85. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale*, 4<sup>th</sup> International Workshop on Surface Physics (IWSP), Wroclaw (Poland) Sept. 2009.
84. F. Rosei, *Survival Skills for Scientists*, ICAM 2009, Rio de Janeiro (Brazil), Sept. 2009.
83. F. Rosei, *Exploring Molecular Assembly at Surfaces*, ICAM 2009, Rio de Janeiro (Brazil), Sept. 2009.

82. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, Conference on Interactions Among Nanostructures*, St. Thomas (U.S. Virgin Islands), Sept. 2009.
81. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, ICCE-17*, Honolulu (HI), July 2009.
80. F. Rosei, *Exploring Molecular Assembly at Surfaces, ICMAT 2009 Symposium K*, Singapore July 2009.
79. F. Rosei, *Surface Nanopatterning to Control Cell Growth, ICMAT 2009 Symposium B*, Singapore July 2009.
78. F. Rosei, *Survival Skills for Scientists, ICMAT 2009 Symposium V*, Singapore July 2009.
77. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, International Conference on Advances in Functional Materials*, Jiu Zhai Gou (China), June 2009.
76. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, ISFM 2009*, S. Korea, June 2009.
75. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, PACRIM-8*, Vancouver (Canada) June 2009.
74. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, SPIE Meeting on Micro-Nanotechnology Sensors, Systems, and Applications*, Orlando (FL), April 2009.
73. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, Nanobiophysics and Chemistry Conference achievements 2009*, Antigua and Barbuda, Jan. 2009.
72. F. Rosei, *Surface Nanopatterning to Control Cell Growth, 33<sup>rd</sup> Int. Conf. on Advanced Ceramics and Composites*, Symposium on Next generation Bioceramics, Daytona Beach (FL), Jan. 2009.
71. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, 9<sup>th</sup> International Symposium on Ceramic Materials and Components for Energy and Environmental Applications*, Shanghai (China), Nov. 2008.
70. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, Symposium G*, MRS Brazil, Sept. 2008.
69. F. Rosei, (**Keynote**) *Strategies for Controlled Assembly at the Nanoscale, MSE Conference*, Nurnberg (Germany) Sept. 2008.
68. F. Rosei, *Alloying, self-ordering and stability of Ge/Si semiconductor nanostructures, Symposium on Group IV nanostructures, ICEM 2008*, Sydney (Australia), July 2008.
67. F. Rosei, *Survival Skills for Scientists, Symposium on Materials Education, ICEM 2008*, Sydney (Australia), July 2008.
66. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, Thin Films 2008*, Singapore July 2008.
65. F. Rosei, (**Keynote**) *Controlling Molecular Assembly at Surfaces, NanoSEA-2*, Rome (Italy) July 2008.
64. F. Rosei, (**Keynote**) *Surface Nanopatterning to Control Cell Growth, NanoBioEurope 2008*, Barcelona (Spain), June 2008.
63. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, Symposium on Molecular Electronics, IEEE Nanoelectronics Conference*, Shanghai (China), March 2008.
62. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, Nanotechnology Symposium, 32<sup>nd</sup> ICACC / ACerS meeting*, Daytona Beach (FL), Jan. 2008.
61. F. Rosei, (**Keynote**) *Strategies for Controlled Assembly at the Nanoscale, 4<sup>th</sup> MRS-Africa*, Dar Es Salaam (Tanzania), Dec. 2007.
60. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, PACRIM-7*, Shanghai (China), Nov. 2007.
59. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, VC-NST*, Fayetteville (AK), Oct. 2007.
58. F. Rosei, (**Keynote**) *Strategies for Controlled Assembly at the Nanoscale, Nano E3 Workshop*, Stradbroke Island (Australia) Sept. 2007.
57. F. Rosei, *Nanostructured materials synthesized by laser ablation, ICMAT 2007 Symp. M*, Singapore July 2007.
56. F. Rosei, *Organic Self-Assembly by High Resolution STM, ICMAT 2007 Symp. G*, Singapore July 2007.
55. F. Rosei, *Chemical Mapping of Semiconductor Nanostructures, ICMAT 2007 Symp. N*, Singapore July 2007.
54. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, ICMAT 2007 Symp. E*, Singapore July 2007.
53. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, Symp. K, E-MRS Spring Meeting*, Strasbourg (France) May 2007.
52. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, ISFM 2007*, Hangzhou (China), May 2007.
51. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, LDSD 2007*, S. Andres (Colombia), April 2007.
50. F. Rosei, *Strategies for the Controlled Assembly of NanoMaterials, NGC*, Phoenix (AZ) March 2007.
49. F. Rosei, (**Plenary**) *Strategies for the Controlled Assembly of Nanostructured Materials, International Congress of Industrial Chemistry*, Monterrey (Mexico), March 2007.
48. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, Thin Films 2006*, Singapore, Dec. 2006.
47. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, IWONN3*, Halong Bay (Vietnam), Dec. 2006.
46. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, Symposium on Nanostructured Materials, MS&T*, Cincinnati (OH), Oct. 2006.
45. F. Rosei, *Chemical Mapping of Semiconductor Nanostructures, Workshop on Epitaxial Growth and Fundamental Properties of Semiconductor Nanostructures*, Bonassola (Italy), Sept. 2006.
44. F. Rosei, (**Keynote**) *Strategies for Controlled Assembly at the Nanoscale, Trends in Nanotechnology 2006*, Grenoble (France), Sept. 2006.
43. F. Rosei, *Controlled Patterning of Ferroelectric Nanostructures, Electroceramics X*, Toledo (Spain), June 2006.
42. F. Rosei, *Nanopatterning and nanostructuring for tissue engineering and regenerative medicine, NanoBioEurope 2006*, Grenoble (France) June 2006.
41. F. Rosei, (**Keynote**) *Properties of Organic Molecules at Metal Surfaces, ICON 2006*, Choroni (Venezuela), May 2006.
40. F. Rosei, *Properties of Organic Molecules at Metal Surfaces, APS March Meeting*, Baltimore (MD) 2006.

39. F. Rosei, *Strategy for controlled Assembly of Nanostructured Materials, Nano Singapore 2006 (IEEE Conference on Nanoelectronics)*, Singapore, Jan. 2006.
38. F. Rosei, (**Plenary**) *Properties of Nanostructured Materials, SPIE Conference on Microelectronics, MEMS and Nanotechnology*, Brisbane (Australia), Dec. 2005.
37. F. Rosei, *Nanostructured Materials: Properties of Semiconductor Nanostructures and Carbon Nanotubes, Singapore International Chemical Conference –4*, Singapore, Dec. 2005.
36. F. Rosei, (**Plenary**) *Nanostructured Functional Materials: Challenges and Opportunities, International Symposium on Functional Materials*, Kuala Lumpur, Dec. 2005.
35. F. Rosei, *Properties of Organic Molecules at Metal Surfaces by High Resolution STM, MRS Fall Meeting, Symposium CC*, Boston, Dec. 2005.
34. F. Rosei, *Nanotechnology in Canada: Academic Research, Government Funding and Networks, n-ABLE 2005*, Saarbrucken (Germany), Sept. 2005.
33. F. Rosei, *Properties of Organic Molecules at Solid Surfaces, IMRC Symposium on Nanotechnology*, Cancun (Mexico) Aug. 2005.
32. F. Rosei, *Alloying and Stability of Ge/Si Nanostructures studied with synchrotron techniques, IMRC Symposium on Synchrotron Radiation*, Cancun (Mexico) Aug. 2005.
31. F. Rosei, *Critical Issues in the Growth of Ge(Si) Nanostructures on Si, ICMAT 2005, Symp. H* (Singapore), July 2005.
30. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale, ICMAT 2005, Symp. B* (Singapore), July 2005.
29. F. Rosei, *Nanostructured Materials: Challenges and Opportunities, Insulating Films on Semiconductors*, Leuven (Belgium), June 2005.
28. F. Rosei, *Strategies for controlled assembly at the nanoscale, Chinanano2005*, Beijing (China), June 2005.
27. F. Rosei, *Properties of Ge/Si nanostructures: alloying, stability and positioning, ARPES2005–New Frontiers*, Vancouver (BC), April 2005.
26. F. Rosei, *Strategies for controlled assembly at the nanoscale, Nanotech Insight*, Luxor (Egypt), Feb. 2005.
25. F. Rosei, *Strategies for controlled assembly of molecular nanostructures, AVS workshop on 1D nanomaterials*, Taipei (Taiwan) Jan. 2005.
24. F. Rosei, *Critical Issues in the growth of Ge–Si nanostructures, PFAM XIII* (Singapore, Dec. 2004).
23. F. Rosei, *New insight in the growth of Ge(Si) nanostructures, The First Workshop on Nanoscale Sensing and Manipulation*, Tien Lai Spring Resort (Taiwan), Nov. 2004.
22. F. Rosei, *Nanomaterials: from Quantum Dots to Organic Molecules, IUMRS–ICA Symp. B*, Taiwan Nov. 2004.
21. F. Rosei, *Critical Issues in the growth of Ge–Si nanostructures, APPC–9*, Hanoi (Vietnam) Oct. 2004.
20. F. Rosei, *Supramolecular assemblies at the nanoscale, IWONN2*, Hanoi (Vietnam) Oct. 2004.
19. F. Rosei, *Micro-Nanofabrication Infrastructure in Quebec, Nanomaterials Crossroads 2004*, Boucherville (QC, Canada) Oct. 2004.
18. F. Rosei, *Nanostructured Materials: from Quantum Dots to Organic Molecules, NGCM 2004*, Krakow (Poland), Sept. 2004.
17. F. Rosei, *Properties of Complex Molecules at Metal Surfaces, E–MRS Fall Meeting, Symp. I*, Warsaw (Poland), Sept. 2004.
16. F. Rosei, *Critical Issues in the growth of Ge–Si nanostructures, ICCE–11*, Hilton Head Island (SC) Aug. 2004.
15. F. Rosei, (**Plenary**) *Properties of Nanostructured Materials, Nanotech 2004* (Singapore), July 2004.
14. F. Rosei, *Properties of Complex Molecules at Metal Surfaces, APS March Meeting* (Montreal 2004).
13. F. Rosei, *Adsorption Properties of Organic Molecules at Surfaces, APF–9* (Japan, March 2004).
12. F. Rosei, *Organic Molecules at Surfaces: perspectives and challenges for Molecular Electronics, ICONSAT*, Kolkata (India), Dec. 2003.
11. F. Rosei, *Nanopatterned surfaces for controlled adsorption of molecular building blocks, ICMAT 2003, Symp. N3* (Singapore, Dec. 2003).
10. F. Rosei, *Organic Molecules at Surfaces by High Resolution STM, ICMAT, Symp. N2* (Singapore, Dec. 2003).
9. F. Rosei, *Critical Issues in the growth of Ge–Si nanostructures, ICMAT 2003, Symp. H* (Singapore, Dec. 2003).
8. F. Rosei, *Properties of Complex Molecules at Metal Surfaces, Fall MRS, Symp. O* (Boston, Dec. 2003).
7. F. Rosei, *Large Molecules on Metal Surfaces by High Resolution STM, ECOSS 22*, Prague (Czech Republic), Sept. 2003.
6. F. Rosei, *Large Molecules at Surfaces by High Resolution STM, EUROMAT 2003* (Lausanne (Switzerland), Sept. 2003).
5. F. Rosei, *Organic Molecules on Metal Surfaces by High Resolution STM, IPMM03* (Sendai, Japan, May 2003).
4. F. Rosei, *Largish Molecules on Metal Surfaces by High Resolution STM, AMN-1* (Wellington, NZ, Feb. 2003).
3. F. Rosei, *Diffusion, Anchoring And Forced Assembly of Organic Molecules on a Metal Surface, Fall MRS, Symp. W* (Boston Dec. 2002).
2. F. Rosei, *Diffusion and anchoring of complex molecules on metal surfaces: possibilities and challenges in nanoengineering, SSP9*, Trest Castle (Czech Republic), Sept. 2002.
1. F. Rosei, *Anchoring of Large Organic Molecules to Monoatomic Steps on Metal Surfaces, nn2001*, Rome (Italy), Oct. 2001.

### INVITED PRESENTATIONS AT “VIRTUAL” (ONLINE) CONFERENCES (21):

21. F. Rosei, *Multi-functional Materials for Emerging Technologies, iCANX, Connecting the World and the Universe*, March 2023. [**>21,000 attendees**]

20. F. Rosei, *Multi-functional Materials for Emerging Technologies*, CAP Brockhouse Medal Award Lecture, Feb. 2023.
19. F. Rosei (**Plenary**) *Multi-functional Materials for Emerging Technologies*, International Symposium on Green Energy Materials and Application Technology, Dec. 2022.
18. F. Rosei, (**Keynote**) *Multi-functional Materials for Emerging Technologies*, 2021 International Symposium on Advanced Functional Materials and Nano Energy, Aug. 2021.
17. F. Rosei, (**Tutorial**) *Survival Skills for Scientists*, IMRC, Cancun, August 2021.
16. F. Rosei, (**Keynote**) *Multi-functional Materials for Emerging Technologies*, IEEE 3M Nano, Xian (China), Aug. 2021.
15. F. Rosei, *Multi-functional Materials for Emerging Technologies*, World Conference on Nanomaterials, July 2021.
14. F. Rosei, *Multi-functional Materials for Emerging Technologies*, Fourth International Conference on Applied Surface Science (Virtual) June 28-July 1, 2021
13. F. Rosei, (**Keynote**) *Multi-functional Materials for Emerging Technologies*, World Conference on Nanotechnology and Materials (WCNM-2021), Kunming (China), April 2021.
12. F. Rosei, *Nanoscale structure and modification of Biomaterials*, Symposium on Devices for Medical Applications, 8<sup>th</sup> International Congress on Ceramics, Busan (S. Korea), Aug. 2020. (**post-poned to April 2021 due to Corona Virus pandemic**)
11. F. Rosei, *Nanoscale structure and modification of Biomaterials*, ICACCS 45, Daytona Beach, Feb. 2021 (Virtual).
10. F. Rosei, *Structure/property relationships in biomaterials at the Nanoscale*, Harbin International Neurosurgery Summit, Jan. 2021 (Virtual).
9. F. Rosei, *Multi-functional Materials for Emerging Technologies*, Nano-Bio Workshop, activity of the PhD Program in Science and Technology of Bio and Nanomaterials, Department of Molecular Science and Nanosystems, Università Ca' Foscari Venezia, Dec. 2020.
8. F. Rosei, *Multi-functional Materials for Emerging Technologies*, Perovskites – applications and recent advances, Webinar Event by IEEE NTC Young Professionals Canada, Dec. 2020
7. F. Rosei, (**Panelist**), *Green Deal – Technologies for Circular Economy*, European IndTech2020 conference, Mainz (Germany), October 2020 (Virtual).
6. F. Rosei, *Multi-functional Materials for Emerging Technologies*, 238<sup>th</sup> ECS Meeting, Honolulu, Hawaii, Oct. 2020 (Virtual).
5. F. Rosei, *Multi-functional Materials for Emerging Technologies*, 4<sup>th</sup> Conference on Micro-nano Optical Technology and Application, MOTA 2020, Sept. 2020.
4. F. Rosei, *Multi-functional Materials for Emerging Technologies*, International Symposium on Advanced Energy Materials, Sept. 2020.
3. F. Rosei, *Multi-functional Materials for Emerging Technologies*, Virtual Academic Seminar for the launch of the journal Smart Mat, Sept. 2020. [**>59,000 attendees**]
2. F. Rosei, *Multi-functional Materials for Emerging Technologies*, IEEE Photonics Society Distinguished Lecture (hosted by IEEE Photonics Berkeley Chapter), August 2020.
1. F. Rosei, *Multi-functional Materials for Emerging Technologies*, IAAM Fellow Lecture, Advanced Materials Lecture Series 2020, June 2020.

## INVITED CONFERENCE PRESENTATIONS AT NATIONAL CONFERENCES (29)

29. F. Rosei, *Multi-functional Materials for Emerging Technologies*, (CSC Awards Lecture for T.K. Sham Award), Vancouver, June 2023.
28. F. Rosei, *Multi-functional Materials for Emerging Technologies*, Canadian Materials Science Conference, Toronto, June 2022.
27. F. Rosei (**Speaker and Panelist**), Engineering and Sustainable Development, IEEE Day, Montreal, October 2019.
26. F. Rosei, *Survival Skills for Scientists*, SPIE Student Focus Conference, University of Toronto, Sept. 2019.
25. F. Rosei, *Multi-functional Materials for Emerging Technologies*, SPIE Student Focus Conference, University of Toronto, Sept. 2019.
24. F. Rosei, *Multi-functional Materials for Emerging Technologies*, Canadian Semiconductor Science and Technology Conference, Saskatoon (Canada), July 2019.
23. F. Rosei (**Panelist**), *An Editorial Perspective*, CQMF Annual Meeting, Montreal, May 2018.
22. F. Rosei, (**Plenary**) *Multi-functional Materials for solar technologies*, *Chemical Engineering Polytechnique-McGill joint research day*, Montreal, March 27<sup>th</sup>, 2018.
21. F. Rosei (**Panelist**), Engineering and Sustainable Development, IEEE Day, Montreal, October 2017.
20. F. Rosei, *Exploring Molecular Assembly at Surfaces*, 99<sup>th</sup> CSC Annual Meeting (CSC John C. Polanyi Award Lecture), Halifax, June 2016.
19. F. Rosei, (**Keynote**) *Multi-functional Materials for Electronics and Photonics*, Nano Ontario, University of Ottawa, Nov. (2015).
18. F. Rosei, *Multi-functional Materials for Electronics and Photonics*, ECS Canada Fall Meeting, Burnaby, October 2015 (ECS Canada Section Lash Miller Award Lecture)
17. F. Rosei, *Survival Skills for Scientists, the case of post-doctoral scholars*, Canadian Association of Post-Doctoral Administrators, St. John's (Newfoundland), Oct. 2014.
16. F. Rosei, *Multi-functional Materials for Electronics and Photonics*, 97<sup>th</sup> CSC Annual Meeting, Vancouver, June 2014 (CSC Awards Lecture for Excellence in Materials Chemistry)
15. F. Rosei, *Time resolved nanoscale phenomena by Dynamic Transition Electron Microscopy*, MSC Conference, Victoria, June 2013.
14. F. Rosei, *Nanostructured materials: strategies and perspectives*, CAP Herzberg Medal Award Lecture, Montreal, May 2013.

13. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale*, CSC Meeting, Quebec City, May 2013.
12. F. Rosei, *Multi-functional Materials and their use in photonic devices*, CAP Congress, Montreal, May 2013.
11. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale*, CAP Congress, Montreal, May 2013.
10. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale*, Surface Canada, London (ON), May 2013.
9. F. Rosei, *Exotic materials for solar energy conversion*, Photonics North, Montreal, June 2012.
8. F. Rosei, *Chemical Mapping of Semiconductor Surfaces*, PEEM workshop, Banff, Sept. 2009.
7. F. Rosei, *Exploring Molecular Assembly at Surfaces*, Junior Nanotechnology Network Workshop, McGill, June 2008.
6. F. Rosei, *Choosing a career in Science and Engineering; developing 'Survival Skills'*, Engineering Science Education Conference 2008, University of Toronto, Jan. 2008.
5. F. Rosei, *Strategies for Controlled Assembly at the Nanoscale*, CSACS/industry Symposium, Montreal, July 2007.
4. F. Rosei, *Chemical Mapping of Semiconductor Nanostructures*, MSC Conference, Edmonton June 2007.
3. F. Rosei, *Chemical Mapping at the Nanoscale*, CAP Congress 2006, St. Catharine's (ON), June 2006.
2. F. Rosei, *Critical Issues in Ge-Si nanostructures*, CLS User's Meeting, Saskatoon (SK), Nov. 2004.
1. F. Rosei, *Critical issues in Ge/Si nanostructures*, CAP Congress (Winnipeg), June 2004.

### INVITED LECTURES AT NATIONAL AND INTERNATIONAL SCHOOLS (15)

15. F. Rosei, *Survival Skills for Scientists*, ECOSS Satellite Workshop, Aarhus (Denmark) Aug. 2018.
14. F. Rosei, *Survival Skills for Scientists*, Nano E3 School and Workshop, Brisbane (QLD), Sept. 2017.
13. F. Rosei, *Survival Skills for Scientists*, IEEE Nano Summer School, Montreal (QC), June 2017.
12. F. Rosei, *Survival Skills for Scientists*, Nano E3 School and Workshop, Airlie Beach (QLD), September 2013.
11. F. Rosei, *Survival Skills for Scientists*, CASCA Annual Meeting, London (ON), May 2011.
10. F. Rosei, *Survival Skills for Scientists*, Sino Danish Summer School on Self-Assembly of Molecular Structures, Sonderborg (Denmark) July 2010.
9. F. Rosei, *Exploring Molecular Assembly at Surfaces*, Sino Danish Summer School on Self-Assembly of Molecular Structures, Sonderborg (Denmark) July 2010.
8. F. Rosei, *Advanced techniques for nanostructure and surface characterization*, Jesi (Ancona), Sept. 2008.
7. F. Rosei, *Scanning Probe Microscopy: Fundamentals and Applications*, IEEE Nanoelectronics Conference, Shanghai (China), March 2008.
6. F. Rosei, *Nanostructured Materials: Properties and Applications*, Hanoi (Vietnam), Dec. 2006.
5. F. Rosei, *Nanostructured Materials: Properties and Applications*, Jesi (Ancona, Italy), Sept. 2006.
4. F. Rosei, *Scanning Probe Microscopy techniques for investigating Nanostructured Materials*, AFM summer school, Brisbane (Australia), Dec. 2005.
3. F. Rosei, *Nanostructured Materials: from Quantum Dots to Organic Molecules*, RQEMP summer school, Montréal (QC), August 2004.
2. F. Rosei, *Properties of Complex Molecules at Metal Surfaces*, RQMP-AFM summer school, Montréal (QC), May 2004.
1. F. Rosei, *Properties of Organic Molecules adsorbed on metal Surfaces*, CIAR summer school on Nanoelectronics, Montréal (QC), July 2003.

### UNIVERSITY LECTURES ON "SURVIVAL SKILLS FOR SCIENTISTS" (66)

Southern Illinois University (Carbondale, IL), Sigma Xi Distinguished Lecture, Feb. 2023; Ca' Foscari University Venice, Sept. 2022; UNITEN (Kuala Lumpur, Malaysia), IEEE Photonics Society Distinguished Lecture, July 2022; University of Houston (Houston, Texas), IEEE Photonics Society Distinguished Lecture, June 2022; University of Central Florida (Orlando, Florida), IEEE Photonics Society Distinguished Lecture, June 2022; iThemba Labs (Cape Town, South Africa), Feb. 2020; UTAR (Kuala Lumpur, Malaysia), Jan. 2020; Concordia University (Opening Lecture at the Annual Workshop on "Survival Skills for Scientists and Engineers"), May 2019; Beijing Institute of Technology, Nov. 2018; Suzhou University, Nov. 2018; Shanghai University, Sept. 2018; University of Alberta, Edmonton, Sept. 2018; University of Rome Tor Vergata, June 2018; Queen's University (Kingston, ON), March 2018; Univ. California, Davis, Feb. 2018; Univ. California Riverside, Feb. 2018; Suzhou University, Nov. 2017; CAS Nano Center Beijing, Oct. 2017; Univ. California Santa Barbara, Aug. 2017; Macquarie Univ. and Queensland Univ. of Technology (Australia), Nov. 2016; University of Jinan (China), Sept. 2016; University of Houston (USA), April 2016; Curtin University of Technology (Perth, Au), March 2016; UQ Trois Rivieres, Jan. 2016; NSERC CREATE program PERSWADE (INRS/McGill/ETS/Polytechnique/Concordia), Jan. 2016; University of Victoria, Dec. 2015 (SPIE Visiting Lecture); University of Jinan, Oct. 2015; Washington State University, July 2015; Tehran Medical Univ., March 2015; KU Leuven (Belgium), Nov. 2014; Univ. of Rome Tor Vergata, June 2014; Colorado School of Mines (Golden, CO), April 2014; Simon Fraser Univ. (Vancouver), March 2014; Laval Univ. (Quebec City), Feb. 2014; Univ. of Aarhus (Denmark), Jan. 2014; Flinders Univ. (Adelaide, Australia), Swinburne Univ. (Melbourne, Australia), Sept. 2013; Univ. Cergy (France), Nov. 2012; Free Univ. Bolzano, Oct. 2010; Univ. of Cagliari, June 2010; Laval Univ., March 2010; Monash Univ., March 2010; National Taiwan Univ., Nov. 2009; Lakehead Univ., Oct. 2009; Univ. of Missouri Columbia, Oct. 2009; NTU Singapore, Aug. 2009; LaTrobe Univ., Melbourne (Au), May 2009; Macquarie Univ., Sydney (Au), April 2009; Memorial Univ. Newfoundland, St. Johns (NL), April 2009; University of Groningen (Netherlands), June 2008;

Norfolk State Univ., Norfolk (VA), Feb. 2008; Mount Allison Univ., New Brunswick, Jan. 2008; Univ. of Sydney, Sydney, Oct. 2007; Univ. of Technology Sydney, Sydney, Oct. 2007; Univ. of Saskatchewan, Saskatoon, Sept. 2007; NUSNNI/Physics, National Univ. of Singapore, July 2007; Univ. of Tokyo (Kashiwa Campus), Feb. 2007; National Univ. of Singapore (Chem. Dept.), Feb. 2007; Univ. of California, San Diego (USA), Feb. 2006; Georgiatech (Atlanta, GA), Oct. 2006; Washington State Univ. (Pullman, WA), Nov. 2005; Dartmouth College (NH), April 2005; Univ. of South Florida (Tampa), April 2005; Univ. of Guelph (ON), April 2005; Trinity College Dublin (Ireland), March 2005.

## INVITED SEMINARS (264)

*La Sapienza* (Rome, Italy) May 1999 and Oct. 1999; *NTT Basic Res. Labs* (Atsugi, Japan), Sept. 1999 and Sept. 2000; *Univ. of Århus* (Denmark), May 2000; *IFW Dresden* (Germany), Feb. 2001; *PSI Villigen* (Switzerland), March 2001; *BUN–Nanomol Meeting*, Aspet (France), May 2001; *INRS* (Varenes, QC), Aug. 2001; *Univ. of Birmingham* (UK), Oct. 2001; *CEMES Toulouse* (France), Nov. 2001; *École Polytechnique de Montréal* (QC), Nov. 2001; *Orsay* (France), June 2002. **Colloquium**, *Queen’s Univ.* (Kingston, ON), Oct. 2002; *Bell Labs* (NJ, USA), Oct. 2002; *Laval Univ.* (Québec, QC), Oct. 2002; *Univ. of WI* (Madison, WI), Nov. 2002; *Elettra Light Source* (Trieste, Italy), Nov. 2002; *CNR–ISMN* (Bologna, Italy), Nov. 2002; *Univ. Roma 2* (Roma, Italy), Nov. 2002; *McGill Univ.* (Montreal, QC), Dec. 2002; *NSC* (Taipei, Taiwan), March 2003; *ITRI* (Hsinchu, Taiwan), March 2003, *Canada–Korea partnering seminar* (Seoul, Korea), March 2003; **Colloquium**, *Univ. de Montréal* (Montréal, QC), March 2003; **Colloquium**, *McGill Univ.* (Montréal, QC), March 2003; *NRC–IMI* (Boucherville, QC), May 2003; *Yokohama City Univ.*, (Yokohama, Japan), May 2003; *NTT Basic Res. Labs* (Atsugi, Japan), May 2003; *Univ. of Rome III* (Rome, Italy), June 2003; *CNRS Grenoble* (France), Sept. 2003; *EPFL* (Switzerland), Sept. 2003; *Ohio Univ.* (Athens, OH), Oct. 2003; *NRC–SIMS* (Ottawa), Oct. 2003; *Univ. of Toronto*, Nov. 2003; *Univ. of Pune* (India), Dec. 2003; *ICTP Trieste* (Italy), February 2004; *ISSP Tokyo* (Japan), March 2004; *Corning* (NY), June 2004; *Univ. Roma 2* (Roma, Italy), July 2004; *Univ. of Århus* (Denmark), Sept. 2004; *Simon Fraser Univ.* (BC), Nov. 2004; *Univ. of British Columbia* (BC), Nov. 2004; *National Taiwan Univ.* (Taiwan), Nov. 2004; *MTEC–NSTDA* (Bangkok, Thailand), Dec. 2004; *ANU, QUT, UNSW* (Australia), Jan. 2005; *Univ. of Hawaii* (HI), Feb. 2005; *Trinity College Dublin* (Ireland), March 2005; *University of Guelph* (ON), April 2005; *Dartmouth College* (NH), April 2005; **Colloquium**, *University of South Florida* (Tampa), April 2005; *KU Leuven* (Belgium), June 2005; *Max Planck Institute* (Stuttgart, Germany), Sept. 2005; *WSU* (Pullman, WA), Oct. 2005; *Univ. of Queensland* (Brisbane, Au), Dec. 2005; *NANOTEC–NSTDA* (Bangkok, Thailand), Dec. 2005; *Univ. of Chulalongkorn* (Bangkok, Thailand), Dec. 2005; *Univ. of California*, San Diego (USA), Feb. 2006; *Brookhaven National Labs* (Upton, NY), March 2006; *ICMAB Barcelona*, June 2006; *Univ. de Montreal*, Oct. 2006; **Colloquium**, *Georgiatech*, Oct. 2006; *Seminar, Air Force Research Laboratory*, Dayton (OH), Nov. 2006; *Keio University*, Yokohama (Japan), Nov. 2006, *IMRE*, Singapore, Dec. 2006; *ISSP Univ. of Tokyo*, Dec. 2006; *Yokohama City Univ.*, Jan. 2007; *ISSP Univ. of Tokyo*, Jan. 2007; *RIKEN*, Jan. 2007; *Osaka Univ.*, Feb. 2007; *Kyoto Univ.*, Feb. 2007; *Univ. of Tokyo* (Hongo Campus) Feb. 2007; *ICYS–NIMS*, Feb. 2007; *NUS Singapore*, Feb. 2007; *ISSP Univ. of Tokyo*, Feb. 2007; *NSFC–NIMS*, Feb. 2007; *Univ. of Tsukuba COE21*, Feb. 2007; *Univ. of Shizuoka* (Hamamatsu), Feb. 2007; *Iowa State University* (Ames, IA), April 2007; *National University of Singapore* (NUSNNI/Physics), July 2007; *University of Melbourne*, Oct. 2007; *University of Western Australia*, Oct. 2007; *University of Sydney*, Oct. 2007; *University of Technology Sydney*, Oct. 2007; *CSIRO*, Oct. 2007; *Univ. of Rome ‘Tor Vergata’* (Physics), Dec. 2007; *University of Moncton*, Jan. 2008; *Mount Allison University*, Jan. 2008; *Nanyang Technological University* (Singapore), Feb. 2008; *University of Western Ontario*, London (ON) April 2008; *University of California, Riverside*, April 2008; *University of British Columbia, Vancouver*, May 2008; *University of Groningen, the Netherlands*, June 2008; *University of Queensland*, Brisbane, Aug. 2008; *Queensland University of Technology* (Brisbane) **IHBI (Spheres of Influence Lecture)**, Aug. 2008; *Monash University*, Melbourne, Sept. 2008; *McGill University*, Montreal, Oct. 2008; *Old Dominion University*, Norfolk (VA), Oct. 2008; *Dalhousie University*, Halifax (NS), Nov. 2008, *UWA* (Perth, Australia), Dec. 2008; *AFRL* (Dayton, OH), Jan. 2009; *UWA*, Feb. 2009; *NSU* (Norfolk, VA), March 2009; *MUN* (St. Johns & Corner Brook), April 2009; *UWA*, May 2009; *CSIRO* (Clayton), May 2009; *Latrobe Univ.* (Melbourne), May 2009; *MSE, Nanyang Technological University*, Aug. 2009; *Univ. of Missouri* (Columbia), Oct. 2009; *Lakehead Univ.* (Thunder Bay, ON), Oct. 2009; *NTU* (Taipei), Nov. 2009; *NSYSU* (Kaoshiung), Nov. 2009; *CNR–ISM* (Rome, Italy), Dec. 2009; *TUM* (Garching, Germany), Dec. 2009; *ISIS–ULP* (Strasbourg), Dec. 2009; *Monash University* (Melbourne), March 2010; *Univ. of Washington* (Seattle), March 2010; *Alfred Univ.* (NY), March 2010; *Laval Univ.* (Quebec), March 2010; *Univ. of Tokyo* (Hongo), *NIMS* (Tsukuba), *Univ. of Tokyo* (Kashiwa), April 2010; *Yokohama City University*, April 2010; *Northwestern University* (Evanston, IL), Sept. 2010; *Vanderbilt University* (Nashville, TN), Sept. 2010; *Universidad de los Andes* (Bogota, Colombia), Sept. 2010; **ASM India Lecture Tour Award**; *IIS Bangalore*, *IIT Bombay*, *IIT Delhi India*, Nov. 2010; *University of Fribourg* (Switzerland), Jan. 2011; *Univ. of Washington* (Seattle, USA), Feb. 2011; *Univ. of Köln* (Germany), March 2011; *IMRE* (Singapore), July 2011; *MPI Stuttgart Colloquium*, Nov. 2011; *Fritz Haber MPI Colloquium*, Nov. 2011; *iThemba Labs* (Cape Town, South Africa, Dec. 2011); *Leibnitz IOM Leipzig*, Jan. 2012; *Leibnitz IFW Dresden*, Jan. 2012; *University of Ottawa*, March 2012; *Washington State University*, Sept. 2012; *Florida International Univ.* (Miami), Nov. 2012; *Univ. Cergy* (France), Nov. 2012; *UNSW Sydney*, Dec. 2012, *Northeastern University* (Boston), Feb. 2013; *California State University, Northridge* (Distinguished Speaker) Feb. 2013; *Concordia University* (Montreal), March 2013; *Tsinghua University*, Nankai University, UESTC (Chengdu), SUSTC (Shenzhen), *Souzhou University*, May 2013; *UCLA CNSI*, June 2013; *Queensland University of Technology* (Brisbane) **IFE (Grand Challenge Lecture)**, Sept. 2013; *Flinders Univ.* (Adelaide), Sept. 2013; **CAP Lecture Tour**, *Univ. of Toronto* (Jan. 2014), **ASM Chapter Brian Ives Award Lecture**, *Laval University* (Feb. 2014); **CAP Lecture Tour**, *Simon Fraser University*, *University of the Fraser Valley*, *Okanagan College Vernon*, *Okanagan College Kelowna* (March 2014); *UBC Vancouver* (March 2014); *Colorado School of Mines* (April 2014); *IPE, Chinese Academy of Sciences*, Beijing (May 2014); *Univ Milano Bicocca*, (June 2014); *Univ Rome La Sapienza* (June 2014); *Hong Kong University of Science and Technology*, Aug. 2014; *UOIT Oshawa* (**CSC Award lecture on**

*excellence in materials chemistry*), Sept. 2014; *MUN St. John's (CSC Award lecture on excellence in materials chemistry)*, Oct. 2014; *McGill University (SPIE Visiting Lecture)*, Nov. 2014; *KU Leuven (Chemistry and Physics)*, Nov. 2014; *IROST (Iran)*, March 2015; *Carleton University (Ottawa) (CSC Award lecture on excellence in materials chemistry)*, March 2015; *University of Ottawa (CSC Award lecture on excellence in materials chemistry)*, April 2015; *University of Toronto*, May 2015; *NTU/Singapore IEEE Chapter (IEEE NTC Distinguished Lecture)*, June 2015; *Queen's University (Kingston, ON) (CSC Award lecture on excellence in materials chemistry)*, Oct. 2015; *University of Beijing / IEEE Chapter (IEEE NTC Distinguished Lecture)*, Oct. 2015; *University of Jinan*, Oct. 2015; *University of Victoria*, Dec. 2015 (*SPIE Visiting Lecture*); *York University, Toronto (CSC Award lecture on excellence in materials chemistry)* Jan. 2016; *QUT Distinguished Lecture*, Brisbane March 2016; *RMIT, Melbourne* March 2016; *University of Houston (Physics) Colloquium*, April 2016; *University of Houston (ECE; IEEE NTC Distinguished Lecture)*, April 2016; *Harbin Institute of Technology*, April 2016; *University of Waterloo*, June 2016; *Elettra Synchrotron Radiation Facility*, July 2016; *iNano Distinguished Lecture*, *University of Aarhus* Aug. 2016; *China Distinguished Materials Scientist Forum*, *University of Science and Technology Beijing*, Sept. 2016; *University of Jinan (China)*, Sept. 2016; *ASM India Lecture Tour Award: Mumbai, ASM India Chapter*, Nov. 2016; *Colloquium, Monash University*, Nov. 2016; *Colloquium, University of Melbourne*, Nov. 2016; *FUNSOM (Suzhou University)*, Dec. 2016; *Suzhou University School of Energy, Physics and Optoelectronics*, Dec. 2016; *University of South Australia, Institute for Future Industries*, Feb. 2017; *University of Adelaide, Institute for Photonics and Applied Sensing*, Feb. 2017; *ICTP, March 2017*; *Univ. of Köln (Germany)*, May 2017; *Western University (London, ON)*, June 2017; *Chinese Academy of Sciences, Beijing (Aug. 2017)*; *Univ. California, Irvine (Sept. 2017)*; *Univ. California, Riverside (Sept. 2017)*; *Univ. of Queensland, Brisbane (Sept. 2017)*; *Univ. of Sydney (Sept. 2017)*; *CAS Nano Center, CAS Institute of Chemistry, CAS Institute of Semiconductors, CAS Institute of Physics (Beijing)*, Oct. 2017; *Suzhou University*, Nov. 2017; *CUST (Changchun)*, Nov. 2017; *Changchun University*, Nov. 2017; *CAP Lecture Tour, Univ. of Victoria*, Feb. 2018; *CAP Lecture Tour, Kwantlen Polytechnic Univ.*, Feb. 2018; *UC San Diego*, Feb. 2018; *California State University, Northridge* Feb. 2018; *UC Santa Cruz*, March 2018; *Army Research Laboratory West, Los Angeles*, March 2018; *CAP Lecture Tour, Queen's Univ.*, March 2018; *CAP Lecture Tour, Royal Military College*, March 2018; *CAS Institute of Metal Research (Lee Hsun Award Lecture)*, *Shenyang*, April 2018; *CAS Changchun Institute of Applied Chemistry (Honourable Speaker for the Applied Chemistry Lecture Series)* *Changchun*, April 2018; *CAS Suzhou Institute of Nanotechnology, Suzhou*, April 2018; *SUSTech (Distinguished Guest Speaker)*, *Shenzhen*, April 2018; *CAS Shanghai Institute of Optics and Fine Mechanics*, April 2018; *CAS Shanghai Institute of Ceramics*, April 2018; *CAP Lecture Tour, Laval Univ.*, April 2018; *University of Rome Tor Vergata*, June 2018; *Karlsruhe Institute of Technology*, June 2018; *University of Alberta, Edmonton (OSA Traveling Lecturer)*, Sept. 2018; *Shanghai University*, Sept. 2018; *University of Science and Technology Beijing*, Sept. 2018; *Jilin Normal University (Changchun, China)*, Sept. 2018; *Research Center Juelich*, Oct. 2018; *University of Qingdao (China)*, Oct. 2018; *Suzhou University (China)*, Nov. 2018; *University of Stellenbosch (South Africa)*, Nov. 2018; *Suzhou University (China)*, July 2019; *Guilin University of Electronic Technology, Guilin (China)* July 2019; *McGill University, Montreal*, Aug. 2019; *University of Rome "La Sapienza" (Chemistry)*, *Rome*, Sept. 2019; *Jiangsu University, Zhenjiang (China)*, Sept. 2019; *UTAR (Kuala Lumpur, Malaysia)*, Jan. 2020; *Koc University (Istanbul)*, Feb. 2020; *EPFL*, Jan. 2021 (Virtual); *Univ. Ottawa*, Feb. 2021 (Virtual); *Univ. of Dayton (OH)*, Feb. 2021 (Virtual, IEEE Dist. Lecture); *Dongwu Master's Lecture Forum, Suzhou University (China)*, June 2021; *Qingdao University of Science and Technology, Qingdao (China)*, June 2021; *Skipper Lecture, CAS Institute of Process Engineering, Beijing (China)*, June 2021; *Gusu Lab, Suzhou (China)*, June 2021; *Università Ca' Foscari (Venezia, Virtual)*, Nov. 2021; *University of Toronto (Virtual)*, Jan. 2022; *Université de Sherbrooke (CAP Lecture Tour)*, Feb. 2022; *University of Houston (Houston, Texas), IEEE Photonics Society Distinguished Lecture*, June 2022; *University of Waterloo (Waterloo, Ontario), ECE Department Distinguished Lecture*, June 2022; *Università Ca' Foscari (Venezia)*, Sept. 2022; *Xinjiang University (Urumqi, China; Virtual)*, Sept. 2022; *Università di Trieste, Nov 9<sup>th</sup> 2022*; *CNR-IOM*, Nov. 2022; *Fondation MASCIR (Rabat, Morocco)*, Dec. 2022; *CAP Brockhouse Medal Award Lecture (Virtual)*, Jan. 2023.

## OUTREACH ACTIVITIES

### Public Lectures (36) and Lectures at International High Schools (13)

*Nanoscale Structure and Properties of Biocompatible Materials*. Given at: Mexican Academy of Engineering (Induction Ceremony and Presentation), Mexico City, Nov. 2017.

*Energy and Society: What Energy for the Future of Humanity?* Given at: Southern Illinois University (*Sigma Xi Distinguished Lecture*), Carbondale (IL), Feb. 2023; Italian Cultural Institute (Montreal), May 2018; CEGEP Ahuntsic (Montreal), Feb. 2018; California Nanosystems Institute (UCLA), Feb. 2018; Ministry of Foreign Affairs, Government of Madagascar (Dec. 2017); Ohio University (Athens, OH: Kennedy Series Lecture), April 2017; University of Adelaide, Flinders University, Macquarie University and Queensland University of Technology, November 2016; KU Leuven (Belgium), May 2016; Harbin Institute of Technology (Harbin, China), April 2016; Curtin University of Technology (Perth), RMIT (Melbourne), University of Sydney, University of New South Wales (Sydney), Griffith University (Brisbane), March 2016; University of Beijing, Oct. 2015; NTU School of EEE (Singapore), June 2015; ASM Ottawa Chapter, ASM Calgary Chapter, April 2015; ASM Vancouver Chapter, Jan. 2015; ASM Edmonton Chapter, Jan. 2015; ASM Montreal Chapter, Oct. 2014; ASM Ontario Chapter, Oakville (ON), May 2014 [*ASM Canada Brian Ives Lectureship Award*]; ARPICO Society, Vancouver, March 2014; Queensland University of Technology (Brisbane, Au), Sept. 2013; University of Western Ontario (London, ON), May 2011; Skywest lecture (UWA Albany Centre), May 2010; Monash University, Melbourne, March 2010; Lakehead University, Thunder Bay (ON), Oct. 2009; UWA, Perth (Au), May 2009; MUN, Corner Brook (NL), April 2009; MUN, St. Johns (NL), April 2009; Singapore Science Café, Singapore July 2008.

**Energy and Society: What Energy for the Future of Humanity?** International School of Trieste (Italy), May 2023; United World College of the Atlantic, St. Donat's Castle (Wales), Feb. 2022; United World College of East Africa, Arusha (Tanzania), Dec. 2019; United World College of China, Oct. 2017; Li Po Chun United World College of Hong Kong, Dec. 2016; United World College of the Adriatic, Duino (Trieste, Italy), Oct. 2008 and Oct. 2014; United World College of South East Asia, Singapore, Feb. 2008.

**Nanostructured Materials & Nanotechnology** Given at: United World College of South East Asia, Singapore, Dec. 2005; United World College of India, Pune, Dec. 2003; Upper Canada College, Nov. 2003; United World College of the Adriatic, Trieste, Nov. 2002 and Oct. 2014.

## PROFESSIONAL SERVICE

### Conference Organization and Committee Membership (136 in 27 countries)

1. **Member** of the International Scientific Advisory, *APHYS2003*, Badajoz (Spain), Oct. 2003.
2. **Member** of the Program Committee, *Nanomaterials Crossroads Workshop*, Montreal, Oct. 2003.
3. **Co-Chair**, *pre-APS meeting on Nanoscience and NanoMaterials*, Montreal, Mar. 2004.
4. **Co-Organizer** of the *Nanoscience Symposium*, ACFAS 2004, Montreal, May 2004.
5. **Co-Chair** of the *Symposium on Molecular Imaging*, held at UdeM, Montreal, May 2005.
6. **Co-Chair** of the *Symposium on Nanostructured Surfaces and Interfaces*, CSC in Saskatoon, May 2005.
7. **Co-Chair** of *Symposium R (nano-assemblies)*, MRS Fall Meeting, Boston Nov. 2005.
8. **Member** of the Int. Adv. Comm. of the *Int. Symposium on Functional Materials*, KL (Malaysia), Dec. 2005.
9. **Member** of the Scientific Comm. of the *Conf. on Low Dimensionality and Nanotechnology*, Morocco, Nov. 2006.
10. **Member** of the Int. Adv. Comm. of the *2<sup>nd</sup> Int. Symposium on Functional Materials*, Hangzhou (China), 2007.
11. **Co-Chair** of the *Symposium for young scientists, Nano and Giga 2009*, Hamilton (ON), 2009.
12. **Member** of the Int. Adv. Comm. of the *3<sup>rd</sup> Int. Symposium on Functional Materials*, Jinju (S. Korea), 2009.
13. **Member** of the Int. Adv. Comm., *Nano 2010*, Rome (Italy) Sept. 2010.
14. **Chair** of the *Workshop on Time Resolved Electron Microscopy*, Montreal, May 2011.
15. **Member** of the Int. Adv. Comm. of the *4<sup>th</sup> Int. Symposium on Functional Materials*, Sendai (Japan), Aug. 2011.
16. **Chair** of the *1<sup>st</sup> post-MRS Symposium on Advanced Materials and Nanotechnology*, Varennes (Canada), Dec. 2011.
17. **Co-Chair** of the *Symposium on Nanobiophotonics*, MRS Africa, December 2011 (Victoria Falls, Zimbabwe).
18. **Co-Chair** of the *Symposium on Advanced Materials for Photonics and Energy*, ICACS, Daytona Beach (FL), Jan. 2012.
19. **Co-Chair** of the Zing Conference *on Supramolecular Assemblies at Surfaces: Nanopatterning, Functionality, Reactivity*, Lanzarote (Spain), Feb. 2012.
20. **Co-Chair** of the *Symposium on Surface and Interface Characterization*, IMRC Cancun (Mexico), Aug. 2012.
21. **Chair** of the *2<sup>nd</sup> post-MRS Symposium on Advanced Materials and Nanotechnology*, Varennes (Canada), Dec. 2012.
22. **Member** of the Int. Adv. Comm. of the *5<sup>th</sup> Int. Symposium on Functional Materials*, Perth (Australia), Dec. 2012.
23. **Member** of the *Photonics Global Conference Technical Committee*, Singapore, Dec. 2012.
24. **Co-Chair** of the *Symposium on Advanced Materials for Photonics and Energy*, Daytona Beach (FL), ICACS 2013.
25. **Co-Chair** of the *Symposium on Metal Oxides and their applications*, MRS Spring Meeting, San Francisco (CA), April 2013.
26. **Co-Chair** of the *Symposium on Nanoscale Sensors, Devices & Systems*, IC4N, Corfu (Greece), June 2013.
27. **Co-Chair** of the *Symposium on Nanoceramics and Nanohybrids for Energy, Environment and Healthcare*, ICMAT 2013, July, Singapore.
28. **Co-Chair** of the *Symposium on Surfaces and Interfaces and their role in Materials Processing*, IMRC Cancun (Mexico), August 2013.
29. **Co-Chair** of the *Symposium on Synthesis and Structural and Functional Characterization of Thin Films and Self-assembled Nanostructures*, MS&T, Montreal, October 2013.
30. **Member** of the Int. Adv. Comm. of the *1<sup>st</sup> International Conference on Electrical Information and Communication Technology*, Khulna (Bangladesh), Nov. 2013.
31. **Chair** of the *Symposium on Materials and Technologies for Energy Conversion, Saving and Storage*, African MRS, Addis Ababa (Ethiopia), Dec. 2013.
32. **Co-Chair** of the *Symposium on Advanced Materials for Photonics and Energy*, ICACS, Daytona Beach (FL), Jan. 2014.
33. **Co-Chair** of the *Symposium on Molecular Self-Assembly*, ACS Spring Meeting, Dallas (TX), March 2014.
34. **Co-Chair** of the *Symposium on Metal Oxides and their applications*, NGC meeting, Phoenix (AZ), March 2014.
35. **Chair** of the *Inaugural Symposium of the UNESCO Chair MATECSS*, Montreal, April 2014.
36. **Co-Chair** of the *EMN East Spring Meeting*, Beijing (China), May 2014.
37. **Co-Chair** of the *Workshop on Surface Chemistry*, Les Houches (France), May 2014.
38. **Symposium Chair**, *Tech4Dev Conference 2014*, EPFL (Lausanne, Switzerland), June 2014.
39. **Member** of the *CIMTEC Technical Committee*, CIMTEC, Montecatini Terme (Italy), June 2014.
40. **Member** of the Int. Adv. Comm. of the *6<sup>th</sup> Int. Symposium on Functional Materials*, Singapore, Aug. 2014.
41. **Member** of the Int. Program Committee, *EMN Fall Meeting*, Orlando (FL), Nov. 2014.
42. **Co-Chair** of the *Symposium on Advanced Materials for Photonics and Energy*, ICACS, Daytona Beach (FL), Jan. 2015.

43. **Member** of the Program Committee, *Symposium on Synthesis and Photonics of Nanoscale Materials 2015, Photonics West*, San Francisco (CA), Feb. 2015.
44. **Member** of the International Advisory Committee of the *International conference on Energy Harvesting, Storage and Conversion*, Cochin (India), Feb. 2015.
45. **Co-Chair** of the *Symposium on Advances in Thin Films for Electronics and Photonics*, TMS, Orlando (FL), March 2015.
46. **Co-Chair** of the *EMN East Spring Meeting*, Beijing (China), April 2015.
47. **Member** of the Planning Committee, *Next Generation Solar 2015*, Toronto (ON, Canada), May 2015.
48. **Co-Chair** of the *Annual General Meeting of the Global Young Academy*, Chateau Montebello (QC, Canada), May 2015.
49. **Co-Chair** of *Symposium AA, Advanced Ceramics and Nanohybrids for Energy, Environment and Health* at ICMAT, Singapore, June-July 2015.
50. **Member** of the Int. Scientific Committee, *1<sup>st</sup> International Conference on Applied Surface Science*, Shanghai, July 2015.
51. **Co-Chair** of the *Symposium MATECSS*, IMRC (Cancun), August 2015.
52. **Member** of the Program Committee, *17<sup>th</sup> Canadian Semiconductor Science and Technology Conference*, Sherbrooke (QC), Aug. 2015.
53. **Co-Chair** of the *Symposium on Multiferroic Materials and their Application in Photovoltaics*, Santiago de Compostela (Spain), Sept. 2015.
54. **Member** of the Advisory Committee, *NanoS-E3 International Workshop and School on Nanotechnology*, Kingscliff (Australia), Sept./Oct. 2015.
55. **Co-Chair** of the *Symposium on Ceramic Materials and Processing for Advanced Applications*, Pacificchem, Honolulu (HI), Dec. 2015.
56. **Co-Chair** of the *Symposium on Nanostructured Oxides for Energy Harvesting and Water Splitting*, Pacificchem, Honolulu (HI), Dec. 2015.
57. **Co-Chair** of the *Symposium on Supramolecular Assemblies at Surfaces: Nanopatterning, Functionality, Reactivity*, Pacificchem, Honolulu (HI), Dec. 2015.
58. **Member** of the Int. Adv. Comm. of the *2<sup>nd</sup> International Conference on Electrical Information and Communication Technology*, Khulna (Bangladesh), Dec. 2015.
59. **Co-Chair** of the *Symposium on Advanced Materials for Photonics and Energy*, ICACS, Daytona Beach (FL), Jan. 2016.
60. **Member** of the International Organizing Committee, *1<sup>st</sup> International Energy & Environmental Materials Forum (IEEMF) and 3<sup>rd</sup> Inorganic & Nanomaterials Forum (INF)*, Gold Coast (Australia), Feb. 2016.
61. **Member** of the International Scientific Committee, *ICNS6*, Kish Island (Iran), March 2016.
62. **Symposium Chair**, *Tech4Dev Conference 2016*, EPFL (Lausanne), May 2016.
63. **Co-Chair** of the *Symposium on Laser Modification of Biomaterials*, World Biomaterials Congress, Montreal, May 2016.
64. **General Chair** of the *CMOS Emerging Technologies Conference*, Montreal, May 2016.
65. **Member** of the *CIMTEC Technical Committee*, CIMTEC, Perugia (Italy), June 2016.
66. **Co-Chair** of the *Symposium on Energy Conversion and Storage, 5<sup>th</sup> IC4N*, Porto Heli (Greece) June 2016.
67. **Co-Chair** of the *College on multiscale computational modeling of materials for energy applications*, ICTP (Trieste), July 2016.
68. **Co-Chair** of the *Energy, Materials and Photonics Conference*, Troyes (France), July 2016.
69. **Member** of the International Scientific Committee, *Nano2016*, Quebec City (QC, Canada), Aug. 2016.
70. **Co-Chair** of the *Symposium MATECSS*, IMRC (Cancun), August 2016.
71. **Member** of the International Scientific Committee, *4<sup>th</sup> Advanced Functional Materials and Devices meeting*, Suzhou (China), Aug. 2016.
72. **Member** of the International Advisory Committee, *8<sup>th</sup> International Conference on Low Dimensional Structures and Devices (LDSD 2016)*, Riviera Maya (Mexico) Aug. 2016.
73. **Member** of the International Advisory Committee, *4<sup>th</sup> Advanced Functional Materials and Devices Conference*, Singapore, Aug. 2016.
74. **Co-Chair** of the *Symposium on Multiferroic Materials and their Application in Photovoltaics*, Berlin (Germany), Sept. 2016.
75. **Member** of the International Advisory Board of the *Annual Workshop on Nanotechnology, Renewable Energy & Sustainability*, Xian (China), Oct. 2016.
76. **Member** of the Technical Program Committee, *2<sup>nd</sup> International Conference on Microsystems and Nanotechnology*, Shanghai (China), Nov. 2016.
77. **Co-Chair** of the *Symposium on Advanced Materials for Photonics and Energy*, ICACS, Daytona Beach (FL), Jan. 2017.
78. **Member** of the Technical Program Committee, *Microsystems and Nanotechnology Conference*, Shenzhen (China), May 2017.
79. **Co-Chair** of *Symposium on Photovoltaic and related materials and technologies*, at PACRIM, Kona (HI), May 2017.
80. **Co-Chair** of the *IEEE Summer School on Nanomaterials, Nanotools and Nanodevices*, Montreal, June 2017.
81. **Co-Chair** of *Symposium on Advanced Ceramics and Nanohybrids for Energy, Environment and Health* at ICMAT, Singapore, June-July 2017.
82. **Member** of the International Advisory Committee, *6<sup>th</sup> Advanced Functional Materials and Devices Conference*, Moscow (Russia), July 2017.

83. **Co-Chair** of the *Symposium MATECSS*, IMRC (Cancun), August 2017.
84. **Member** of the Program Committee, *18<sup>th</sup> Canadian Semiconductor Science and Technology Conference*, Waterloo (ON, Canada), Aug. 2017.
85. **Co-Chair** of the *Symposium on nanomaterials and nanotechnology (materials and processes)-related RF/microwave/electromagnetic devices and circuits*, at the IEEE MTT-S International Microwave Workshop Series on Advanced Materials and Processes, Pavia (Italy), Sept. 2017.
86. **Member** of the International Advisory Board, *ACTSEA 2017*, Kaohsiung (Taiwan), Nov. 2017.
87. **Co-Chair** of the *Symposium on Interfaces in Electrochemical Energy Storage*, MRS Fall Meeting, Boston (MA), Dec. 2017.
88. **Co-Chair** of the Session on *Piezoelectrics and photovoltaics for energy harvesting and conversion*, 6<sup>th</sup> ISIF, New Delhi, (India), Dec. 2017.
89. **Chair** of the *Symposium on Energy Conversion, Saving and Storage*, African MRS, Gaborone (Botswana) Dec. 2017.
90. **Member** of the Int. Adv. Comm. of the *3<sup>rd</sup> International Conference on Electrical Information and Communication Technology*, Khulna (Bangladesh), Dec. 2017.
91. **Co-Chair** of the *Symposium on Advanced Materials for Photonics and Energy*, ICACS, Daytona Beach (FL), Jan. 2018.
92. **Co-Chair** of the *Symposium on Nanoscale Luminescent Materials*, 233<sup>rd</sup> ECS Meeting, Seattle (WA), May 2018.
93. **Member** of the International Advisory Board, *Symposium on Advances in Electroceramics: Processing, Structure, Properties, and Applications* of the International Ceramics Congress (CIMTEC), Perugia (Italy), June 2018.
94. **Member** of the International Advisory Board, *6<sup>th</sup> International Solvothermal and Hydrothermal Association Conference*, Sendai (Japan) Aug. 2018.
95. **Member** of the International Advisory Committee, *International Symposium on Functional Materials (ISFM)*, Germany, Aug. 2018.
96. **Co-Chair** of the *Symposium MATECSS*, IMRC (Cancun), August 2018.
97. **Co-Chair** of the Canada / Italy *Symposium on Nanomaterials for Devices*, Varennes (QC), September 2018.
98. **Co-Chair** of the *Workshop on Green Electronics*, Ecole Polytechnique de Montreal, December 2018.
99. **Co-Chair** of the *Symposium on Advanced Materials for Photonics and Energy*, ICACS, Daytona Beach (FL), Jan. 2019.
100. **Co-Chair** of the *Symposium on Oxide-based Materials and Devices X*, SPIE Photonics West, San Francisco (CA), Feb. 2019.
101. **Co-Chair** of the *ACS Symposium on Supramolecular Assemblies at Surfaces*, ACS Spring Meeting, Orlando (FL), March 2019.
102. **Member** of the International Advisory Committee, *Chinese International Ceramics Conference II*, Kunming (China), May 2019.
103. **Co-Chair** of the Symposium on *Materials Education*, ICMAT, Singapore June 2019.
104. **Co-Chair** of the Symposium *Renewable Energy & Photo-Electrochemistry: from Basic Concepts and Materials to Real Devices*, International Society of Electrochemistry Annual Meeting, Durban (South Africa), August 2019.
105. Technical Program Committee **Member** of *IEEE IMWS-AMP 2019*, Bochum (Germany), August 2019.
106. **Co-Chair** of the *Symposium MATECSS*, IMRC Cancun (Mexico), August 2019.
107. **Co-Chair** of the *Symposium on Colloidal Quantum Dots for Emerging Technologies*, ACS Fall Meeting, San Diego (CA), August 2019.
108. **Co-Chair** of the *Symposium on Next Generation Biomaterials*, MS&T, Portland (OR), October 2019.
109. **Co-Chair** of the *Symposium on Challenges in Battery Technologies for Next-Generation Electric Vehicles and Grid Storage Applications*, MRS Fall Meeting, Boston (MA), Dec. 2019.
110. **Co-Chair** of the *Symposium on Materials for Energy Conversion, Saving and Storage*, African MRS, Arusha (Tanzania), Dec. 2019.
111. **Co-Chair** of the *Symposium on Advanced Materials for Photonics and Energy*, ICACS, Daytona Beach (FL), Jan. 2020.
112. **Member** of the Scientific Advisory Board, *International Conference on Nano Research and Development*, Singapore, March 2020.
113. **Member** of the International Advisory Board, *Functional Materials Society Meeting*, Suzhou (China), April 2020 (**post-poned to Aug. 2021 and moved to Chongqing due to COVID19 pandemic**).
114. **Co-Chair** of the *Symposium on Luminescent Nanoscale Materials*, ECS Spring Meeting, Montreal, May 2020. (**canceled due to COVID19 pandemic**)
115. **Member** of the International Advisory Committee, *Japan International conference on Carbon Materials and Materials Applied Sciences (JICCMAS)*, Osaka (Japan), May 2020.
116. **Co-Chair** of the *IEEE Nano conference*, Montreal, July 2020 (**post-poned to July 2021 due to COVID19 pandemic**).
117. **Co-Chair** of the *Symposium MATECSS*, IMRC (Cancun), August 2020. (**post-poned to Aug. 2021 due to COVID19 pandemic; hybrid event**).
118. **Member** of the Scientific Advisory Board of the *International Conference on Advanced Materials for Energy and Information Technology (AMEIT2020)*, Virtual Conference, Aug. 2020.
119. **Co-Chair** of the *Symposium on Materials for Energy Conversion and Storage*, SBPMat, Iguazu Falls (Brazil), Aug. 2020 (**post-poned to Aug. 2021 due to COVID19 pandemic; virtual event**).
120. **Co-Chair** of the *Symposium on Sustainable Electronics-Green Chemistry, Circular Materials, End-of-Life and Eco-Design*, MRS Fall Meeting, Boston (MA), Nov. 2021; hybrid event.

121. **Co-Chair** of the *Symposium on Supramolecular Assemblies at Surfaces: Nanopatterning, Functionality, Reactivity*, Pacificchem, Honolulu (HI), Dec. 2020 (**post-poned to Dec. 2021 due to COVID19 pandemic**). Virtual event.
122. **Co-Chair** of the *Symposium on Nanostructured Oxide for Energy Harvesting, Conversion and Storage*, Pacificchem, Honolulu (HI), Dec. 2020 (**post-poned to Dec. 2021 due to COVID19 pandemic**). Virtual event.
123. **Co-Chair** of the *Symposium on Advanced Materials for Photonics and Energy*, ICACS, Daytona Beach (FL), Feb. 2021 (Virtual).
124. **Member** of the Scientific Advisory Board of the *World Conference on Nanotechnology and Materials* (WCNM-2021), Kunming (China), April 2021.
125. **Co-Chair** of the *International Conference on Energy, Materials and Photonics 2021 (EMP21)*, Kunming (China) Aug. 2021.
126. **Member** of the Conference Program Organizing Committee, *AIP Publishing Horizons Conference on Energy Storage and Conversion* (Virtual), Aug. 2021.
127. **Co-Chair** of the *Symposium on Advanced Materials for Photonics and Energy*, ICACS, Daytona Beach (FL), Jan. 2022 (Virtual).
128. **Co-Chair** of the *Symposium on Nanoscale Luminescent Materials*, 241<sup>st</sup> ECS Meeting, Vancouver (Canada), May 2022.
129. **Co-Chair** of the *Symposium MATECSS*, IMRC (Cancun), August 2022.
130. **Co-Chair** of the *Symposium on Materials for Energy Conversion and Storage*, SBPMat, Iguazu Falls (Brazil), Sept. 2022 (**post-poned due to COVID19 pandemic; hybrid event**).
131. **Co-Chair** of the *Symposium on Low-Dimensional Nanoscale Electronic and Photonic Devices*, 242<sup>nd</sup> ECS Fall Meeting, Atlanta (GA), Oct. 2022.
132. **Co-Chair** of the *Symposium on Colloidal quantum dots for emerging technologies*, MRS Fall Meeting, Boston (MA), Nov. 2022.
133. **Co-Chair** of the *Symposium on Advanced Materials for Photonics and Energy*, ICACS, Daytona Beach (FL), Jan. 2023 (Hybrid).
134. **Co-Chair** of the *Symposium MATECSS*, IMRC (Cancun), August 2023.
135. **Co-Chair** of the *Symposium on Advanced Ceramics for Environmental Remediation*, EMRS Fall Meeting, Warsaw, Sept. 2023.
135. **Co-Chair** of the *Symposium on Materials for Energy Conversion and Storage*, SBPMat, Maceio (Brazil), Oct. 2023.
136. **Co-Chair** of the *Symposium on Low-Dimensional Nanoscale Electronic and Photonic Devices*, PRiME 2024, Honolulu (HI), Oct. 2024.

### Journal Refereeing (101)

Science, Science Adv., Nature, Nature Mater., Nature Chem., Nature Nano., Nature Phot, Nature Phys., Nature Energy, Nature Comm., Angew. Chemie, Chem, Joule, Matter, Phys Rev Lett, NanoLetters, J Am Chem Soc, Adv Mater, Adv Func Mater, Adv Energy Mater, Adv. Opt. Mater., Chem Rev, Chem Soc Rev, Small, Chem Mater, Chem Comm, Med Chem Comm, Acc Chem Res, Nanoscale, ACS Energy Lett, ACS Appl Mater Interf, J Phys Chem B & C, Langmuir, Phys Rev B & E, Appl Phys Lett, ACS Nano, Biomaterials, Chem Eng J, J Chem Phys, J Mater Chem A & C, Chem Eur J, Green Chem, Dalton Trans., Nanotechnology, IEEE Trans. Nanotech., IEEE Trans. UFFC, IEEE Sensors, IEEE Trans. Semic. Manuf., ChemPhysChem, Chem Phys Lett, Surf Science, Appl Surf Sci, Surf Coat Tech, Carbon, Materials Today, Materials Today Chem., Adv. Mater. Tech., Adv. Healthcare Mater., Adv Eng Mater, Physica E, Org Electronics, J Vac Sci Tech, J. Phys. C & D, MRS Comm., Electrochem Comm, Phys Chem Chem Phys, Phys Stat Solidi, Acta Materialia, Acta Biomaterialia, Synth Met, Microel Eng., J All Comp, Mat Sci Eng C., Thin Solid Films, New J Phys, J Elect Spectr Rel Phen, Particle, Plasma Proc. & Polymers, Biotech & Bioeng., J Mater Res, J Eur Cer Soc, J Exp Nanoscience, J Nanosci Nanotech, Superlattices & Microstructures, JM3, J Electrochem Soc, J Sc Probe Micr, Sci Tech Adv Mat, J Kor Phys Soc, J Mater Sci, J Photochem Photobio, Colloids & Surfaces, Cryst Growth & Design, MRS Symp Proc, J Nanopart Res., Fullerenes, Nanotubes and Carbon Nanostructures, Int. J. Biomater.

### Refereeing for Funding Agencies (31 in 16 countries)

NSF [*panelist*], DoE (US); European Science Foundation; EU FP6 [*panelist*]; EU-ERANano [*panelist*]; NSERC [*panelist*], NFRF [*panelist*], Ontario Research Fund [*panelist*], DFAIT, Canada Research Chairs, Killam Fellowships and Prizes (Canada Council for the Arts) [*panelist*]; FRQNT (Quebec); ASTAR, NRF, NUS (Singapore); CNR, CINECA (Italy); FOM (Netherlands); FWF (Austria); National Science Centre (Poland); ACS-PRF; DFG (Germany); FWO (Flanders); Czech Science Foundation (Czech Republic); Hong Kong Research Grants Council; City University of Hong Kong; ANR (France); Australian Research Council (ARC); SFI (Ireland); Mauritius Research Council; SNF (Swiss National Science Foundation); Shastri Institute (Canada/India).

### Assessor in cases of Research Misconduct

Swedish National Board for Assessment of Research Misconduct

### Ph.D. External Examiner (18 universities in 9 countries)

Trinity College Dublin (2005), Univ. British Columbia (2007), Univ. of Pune (2008), Laval Univ. (2009), Nanyang Technological Univ. (2009, 2011, 2012, 2017); Univ. Franche Comté (France, 2011); National Univ. Singapore (2011); Monash Univ. (2012); Univ. Toronto (2015, 2021, 2022); Univ. Aarhus (2016); Univ. Lahore (2016–2020); Lahore College for Women Univ. (2020); Univ. of Agriculture, Faisalbad (Pakistan, 2020); Anna University (Chennai, India 2021); Univ. Rome 2 (Italy); Polytechnique Montreal (2021); UNSW (2022); Univ. Waterloo (2022).

**External Assessor (hiring, promotion, tenure) (22 institutions in 7 countries)**

NUS, NTU, IMRE (Singapore); University of Regensburg (Germany); Portland State University, Colorado School of Mines, Northeastern University, Old Dominion University, University of Houston, Purdue University, University of California Riverside, Baylor University (USA); University of Basel (Switzerland); RMIT, University of Queensland, Monash University (Australia); Dalhousie University; Memorial University of Newfoundland; University of Toronto, York University, University of Ottawa (Canada); Univ. de Marseille (France).

**SUPERVISION OF STUDENTS/RESEARCHERS**

| Position supervised              | Total over career | Currently supervising |
|----------------------------------|-------------------|-----------------------|
| Research Assistants / Associates | 6                 | 2                     |
| Post-Doctoral Fellows            | 57                | 3                     |
| Visiting Scholars / Scientists   | 21                | 4                     |
| PhD Students                     | 51                | 13                    |
| MSc Students                     | 12                | 2                     |
| Undergraduate / summer students  | 44                | -                     |

Training of young scientists (MSc, PhD, summer students, exchange students, visiting scientists, post-doctoral fellows) per country (**46**) of origin:

|         |                |            |           |              |           |             |         |          |             |
|---------|----------------|------------|-----------|--------------|-----------|-------------|---------|----------|-------------|
| Algeria | Australia      | Bangladesh | Brazil    | Brunei       | Bulgaria  | Canada      | China   | Colombia | Congo       |
| 7       | 4              | 3          | 3         | 1            | 1         | 23          | 33      | 1        | 1           |
| Cuba    | Czech Republic | Egypt      | Ethiopia  | France       | Germany   | Ghana       | Greece  | Haiti    | India       |
| 1       | 1              | 1          | 2         | 10           | 7         | 1           | 2       | 1        | 16          |
| Iran    | Iraq           | Italy      | Macedonia | Mali         | Mauritius | Mexico      | Morocco | Nepal    | New Zealand |
| 8       | 2              | 20         | 1         | 1            | 1         | 2           | 2       | 1        | 1           |
| Nigeria | Palestine      | Romania    | Russia    | Saudi Arabia | Senegal   | South Korea | Spain   | Tanzania | Tunisia     |
| 1       | 2              | 3          | 1         | 1            | 1         | 1           | 3       | 1        | 1           |
| Turkey  | UK             | Ukraine    | USA       | Venezuela    | Vietnam   |             |         |          |             |
| 2       | 2              | 2          | 1         | 1            | 1         |             |         |          |             |

**Summer and intern students (44):**

Jonathan Borduas (Canada), Annie Bourdon (Canada), Laurence Timmerman (USA), Maxime Fradette (NSERC, Canada), Romain Perez (France), Chaoying Fu (China), Imen Saidi (Tunisia), Ryan Groome (Canada), Zied Ben Chaouch (Canada), Joanna Rowell (NSERC, Canada), Edoardo Zatterin (Italy), Ram Surya Gona (MITACS Globalink, India), Nikhil Gri (MITACS Globalink, Germany/Ukraine), Akshay Gupta (India), Orsen Zamor (MATECSS, Haiti/Canada), Riccardo Milan (Italy), Thierry Haddad (Canada), Abdellah Henni (Algeria), Mars Abdelkarim (Algeria), Nicola Rana (Italy), Raffaello Mazzaro (Italy), Jaskaran Singh Malhotra (MITACS Globalink, India), Tim Schaefer (Germany), Gurpreet Singh Selopal (India), Ines Serrano (Spain), Dimitra Papadaki (Greece), Erdem Irtem (Turkey), Oleksandr Dobrozhan (Ukraine), Pauline Karkel (France), Suzette Slim (NSERC, Canada), Gil Govin Cardoso (MITACS Globalink, Spain), Eva Schaefer (MITACS Globalink, Germany), Jacks Clinton (India), Bing Luo (CSC, China), Heng Guo (China), Isra Abichou (France), Ralph Chahine (NSERC, Canada), Nasser Alsayyari (MITACS Globalink, Saudi Arabia), Alma Paola Hernández González (MITACS Globalink, Mexico), Shanmugasundaram Kokilavani (MITACS Globalink, India), Karthik Suresh (MITACS Globalink, India), Brian Giam (MITACS Globalink, Hong Kong), Halima Hammami (Tunisia), Isabella Teck (MITACS Globalink, Germany/UK), Swedha Madhu (MITACS Globalink, India).

**Impact in Training HQP:**

Since joining INRS I supervised over **195** excellent trainees from **46** countries. All relations with my trainees aim to help them reach their true potential. My mentoring philosophy is embodied in two quotes: (i) *“Grim is the pupil who does not surpass his mentor”* (Leonardo DaVinci); (ii) *“But, how [can you inspire your team] to be better than they think they can be?”* (from the movie *Invictus*). I take pride in that **31** of my former trainees hold faculty positions in **14** countries, **8** are researchers in national labs, **19** more are staff scientists in industry. Over half my trainees received prestigious fellowships and awards (e.g. NSERC, FQRNT, FRSQ, CIHR, China Scholarship Council, Marie Curie, Vanier, Banting, von Humboldt) while working in my group or upon completion of their training.

**M.Sc. and Ph.D. Students (63)**

| Student         | Degree Program | Research Achievements             | Fellowships / Awards during studies | Fellowships / Awards after studies | Present employment     |
|-----------------|----------------|-----------------------------------|-------------------------------------|------------------------------------|------------------------|
| (co-supervised) | PhD            | Published 6 papers during PhD. In | NSERC eMPOWER Fellowship 2003       | NSERC PDF award                    | Director of Technology |

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| (previously at University of Sherbrooke)          | Sept. 2002 – Nov. 2006                                      | particular, as first author in <i>Appl. Phys. Lett.</i> (2), <i>Phys. Rev. B</i> and <i>Nanotechnology</i>   |   | <b>FQRNT PDF award</b> at Univ. of Montreal  | Transfer at MEI (government of Quebec)   |
| (previously at Queen's University (Kingston, ON)) | PhD June 2003 – Oct. 2008                                   | Published 7 papers during PhD. In particular, as first author in <i>J. Am. Chem. Soc.</i> (Comm.), <i>J. Phys. Chem. B</i> , <i>J. Phys. Chem. C</i> , <i>Nanotechnology</i>   | <b>Canadian Scandinavian Foundation Fellowship for Denmark</b>  | <b>Endeavour PDF Fellowship</b> (Government of Australia)                            | <i>Associate Professor</i> at University of Aarhus, Denmark  |
| (previously at University of Bucharest, Romania)  | PhD July 2003 – Dec. 2007                                   | Published 5 papers during PhD. In particular, as first author in <i>Appl. Phys. Lett.</i> (2) and <i>IEEE Trans. On Nanotechnology</i>   |   | <b>NSERC PDF award</b> at McGill   | Staff scientist at NRC in Boucherville   |
| (previously at University of Trieste, Italy)      | PhD Sept. 2003 – May 2007                                   | Published 11 papers during PhD; as first author in <i>Phys. Rev. Lett.</i> , <i>Small</i> , <i>Appl. Phys. Lett.</i> , <i>J. Appl. Phys.</i> , <i>Nanotechnology</i> and <i>Surf. Sci.</i>   | <b>JISTEC Fellowship for Japan; Gov. of Canada award</b> (CBIE); <b>FQRNT fellowship</b> ; Invited talk at APS March Meeting 2006 | <b>DAAD Exchange Fellowship</b> in Germany, post-doctoral fellowship from CNR, Italy | Permanent staff scientist at CNR Firenze   |
| (previously at Azad University of Karaj, Iran)    | MSc May 2005 – Aug. 2007<br>Then PhD Sept. 2007 – Dec. 2012 | Published as first author in <i>Chem. Comm.</i> , <i>Angew. Chem.</i> and <i>J. Mater. Chem. C</i> , co-authored papers in <i>Adv. Mater.</i> , <i>Adv. Func. Mater.</i> , <i>Chem. Mater.</i> , <i>J. Mater. Chem. C</i> , <i>J. Am. Chem. Soc.</i> | TNT travel grant 2008 and 2009; poster prize TNT 2010, Best paper award CSACS 2012  |  | Research Associate at NRC (Ottawa) then Lab Manager at McGill University Since Jan. 2022, Research Scientist at Cummins Inc. (Ontario)                     |
| (previously at University Waterloo, ON)           | MSc/PhD Sept. 2005 – Dec. 2011                              | Published as first author in <i>Appl. Phys. Lett.</i> , <i>Small</i> , <i>Chem. Comm.</i> and <i>J. Appl. Phys.</i>  | <b>NSERC MSc and PhD Scholarships, GSSSP award</b> from NRC   | <b>NSERC PDF</b>   | Research Associate at NRC (Ottawa) then post-doc at Max Planck Institute in Stuttgart with K. Kern<br>Current position: unknown (changed career)           |
| (previously at University of Trieste, Italy)      | PhD Sept. 2005 – Jan. 2010                                  | Published 8 papers during PhD. In particular, as first author in: <i>Biomaterials</i> , <i>Small</i> , <i>Surf. Sci.</i> , <i>Adv. Eng. Mater.</i> , <i>Appl. Spectroscopy</i>   | <b>JISTEC Fellowship for Japan; Govt. of Canada award</b> (CBIE); <b>FQRNT fellowship</b>   |  | <i>Full Professor, University of Ottawa.</i><br><i>Fabio started his own workshop on "Survival Skills for Scientists" at University of Ottawa in 2011.</i> |

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|---|---|---|--|------------------------|--|
| (previously Univ. South Australia)                      | MSc<br>Sept. 2006 – Dec. 2008                                       | Co-authored 2 papers during MSc. Published as 1 <sup>st</sup> author in <i>Phys. Rev. B</i>   | Best MSc presentation at INRS graduate seminar   |                        | General Manager Operations at Gelion, then Independent Contractor (Australia)  |
| (previously at University of Bamako, Mali)              | MSc<br>Sept. 2008 – Aug. 2010 then PhD student, graduated Aug. 2016 | Published as 1 <sup>st</sup> author in <i>J. Power Sources</i> , <i>J. Phys. Chem. C</i> and <i>J. Mater. Chem. A (Front Cover)</i>                               | Poster prize TNT 2008 and TNT 2009, TNT travel grant 2009 and 2010<br><b>PhD Presidential Fellowship (Government of Mali)</b><br><b>FRQNT PhD Fellowship</b> |                        | Independent consultant in quality, health, safety and environment in ISO standards, Bamako (Mali)  |
| (previously at INRS)                                    | PhD<br>Oct. 2007 – April 2014                                       | Co-authored a paper in <i>Appl. Phys. Lett.</i> , published as 1 <sup>st</sup> author in <i>Appl. Phys. Lett.</i> , <i>Phys. Rev. B</i> and <i>J. Appl. Phys.</i> | <b>FQRNT PhD Fellowship, NSERC PhD (CGS) Fellowship, M. Smith NSERC Supplement</b> , poster prize TNT 2009 and 2010, TNT travel grant 2009 and 2010          |                        | Instructor at John Abbott CEGEP in Montreal  |
| (co-supervised) (previously Shandong University, China) | PhD<br>Aug. 2009 – Feb. 2014  | Published as 1 <sup>st</sup> author in <i>Small</i> , <i>Int. J. Hydrogen Energy</i> and <i>JACS</i>  | <b>FQRNT-MELS PhD Fellowship for foreign students</b>  | <b>FQRNT PDF award</b> | Post-doctoral Fellow at the Institute of Physics, Chinese Academy of Sciences (Beijing), then PDF with Ted Sargent at University of Toronto<br>1000 Talent Young awardee, Tianjin University |
| (previously Univ. of Bucharest, Romania)                | PhD<br>May 2010 – Dec. 2015   | Published as 1 <sup>st</sup> author in <i>ACS Nano</i> , <i>Chem. Comm.</i> , <i>Nanoscale</i> and <i>J. Phys. Chem. C</i> .                                      | <b>FQRNT PhD Fellowship for foreign students</b>   |                        | Staff scientist at Agilrom Scientific, Bucharest (Romania)   |
| (co-supervised) (previously at Dresden Technical Univ.) | PhD<br>May 2010 – June 2014   | Published as 1 <sup>st</sup> author in <i>Adv. Funct. Mater.</i>  | <b>Vanier graduate scholarship</b>   |                        | Head of Physics and Founder, CREDOXYS GmbH, Dresden (Germany)  |
| (previously at Tianjin University, China)               | PhD<br>Sept. 2010 – Dec. 2014                                       | Published as 1 <sup>st</sup> author in <i>Appl. Phys. Lett.</i> , <i>J. Am. Cer. Soc.</i> , <i>Small</i> and <i>Chem. Comm.</i>                                   | <b>Fellowship from China Scholarship Council (CSC), FQRNT PhD Fellowship for foreign students</b>  |                        | Research Assistant Professor at South University of Science and Technology (Shenzhen), then Jinshan B Professor at Jiangsu University (Zhenjiang)  |

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|--|---|--|---|------------|--|---|
| ██████████, co-supervised                                      | PhD, May 2012 – Feb. 2017   | Published as 1 <sup>st</sup> author in <i>Nanoscale (twice)</i> and <i>J. Phys. Chem. B</i> .  | <b>FQRNT Fellowship</b>   | <b>PhD</b> |  | Post-Doctoral Fellow at University of Pennsylvania then Post-Doctoral Fellow at NIH   |
| ██████████, co-supervised (previously at IIT Kharagpur, India) | PhD, May 2013 – Dec. 2018   | Published as 1 <sup>st</sup> author in <i>Scientific Reports</i> , <i>Nanoscale</i> and <i>Electrochimica Acta</i>   |   |            |  | Post-Doctoral Fellow at McGill University   |
| ██████████ i (previously at Univ. Roma 2, Italy)               | MSc, Sept. 2012 – Sept. 2014  | Published as 1 <sup>st</sup> author in <i>J. Phys. Chem. C</i>   |   |            |  | Staff scientist at DALSA Teledyne (Bromont) then Process Engineer at Stathera (Montreal)  |
| ██████████   | PhD Jan. 2013 – June 2018   | Published as 1 <sup>st</sup> author in <i>J. Am. Cer. Soc.</i> , <i>Nanoscale Advances</i> , <i>J. Mater. Chem. A</i> and <i>ACS Appl. Mater. Inter.</i> (2)         |   |            |  | Staff scientist at HG Tech in Wuhan (China)   |
| ██████████   | PhD Jan. 2013 – March 2022  | Published as 1 <sup>st</sup> author in <i>Polymer</i> , <i>Scientific Reports</i> and <i>Smart Mater. and Struct.</i>  |   |            |  | Recently graduated; extended maternity leave  |
| ██████████   | MSc May 2011 – Dec. 2014; then PhD, Jan. 2015 – April 2018              | Published as 1 <sup>st</sup> author in <i>Optics Express</i> , <i>J. Am. Cer. Soc.</i> , <i>Nanotechnology</i> , <i>J. Power Sources</i> and <i>Nature Photonics</i> |   |            |  | Lecturer at CUET (Bangladesh), then staff scientist at Omniply (start-up company in Montreal), then Staff Scientist at Dalsa Teledyne |
| ██████████ (previously at Tianjin University)                  | MSc January 2013 – direct passage to PhD program, graduated summer 2018 | Published as 1 <sup>st</sup> author in <i>Chem. Comm.</i> (3), <i>Cryst. Eng. Comm.</i> , <i>J. Am. Chem. Soc. Small</i> (2) and <i>Nanoletters</i>                  | <b>FQRNT Fellowship to work with D.F. Perepichka at McGill University</b> | <b>PDF</b> | <b>Prix Relève étoile Louis-Berlinguet du FRQNT (2022)</b> | Post-doctoral Fellow with Prof. Perepichka at McGill University, in progress  |
| ██████████ (previously at Tianjin University)                  | MSc Jan. 2013 – April 2015 Then PhD May 2015 – Jan. 2019                | Published as 1 <sup>st</sup> author in <i>J. Mater. Chem. A</i> , <i>Adv. Sci. (Back Cover)</i> and <i>Nano Energy</i> ; review article in <i>Adv. En. Mater.</i>    | <b>FQRNT Fellowship</b>   | <b>PhD</b> |  | Post-doctoral Fellow (group leader) in my group, in collaboration with UESTC (in progress)  |
| ██████████ (previously at Univ. Roma 2, Italy)                 | PhD July 2013 – June 2019   | Published as 1 <sup>st</sup> author in <i>Phys. Chem. Chem.</i>  |   |            |  | Post-doctoral Fellow with Markus Lackinger at the   |

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|  |  | <i>Phys., Faraday Discussions, Nanoscale, Chem. Sci. and Nature Materials</i>   |   |  | Deutches Museum (Munich)  |
| (previously at Univ. Roma 2, Italy)          | PhD July 2013 – June 2019                              | Published as 1 <sup>st</sup> author in <i>J. Chem. Phys., Nanoscale (2)</i> and 2 <sup>nd</sup> author in <i>Appl. Surf. Sci.</i>           | Scholarship from the Society of Vacuum Coaters  |  | Staff scientist at DALSA Teledyne (Bromont), then Researcher at Aktyvus Photonics (Lithuania)     |
| (previously at University of Brescia, Italy) | PhD Jan. 2014 – April 2020<br>PDF May 2020 – Nov. 2022 | Published as 1 <sup>st</sup> author in <i>J. Mater. Chem. C, Sci. Rep., Small, Nano Energy and Nature Energy (News and Views)</i>           | Scholarship from the Society of Vacuum Coaters<br>MITACS Fellowship with Treal Technologies | FQRNT PDF Fellowship to work with D.F. Perepichka at McGill University | Post-doctoral Fellow (Marie Curie Fellow) with J. Durrant at Imperial College London, in progress |
| (co-supervised)                              | PhD, Sept. 2014 – November 2018                        | Published four articles as 1 <sup>st</sup> author in <i>Adv. En. Mater. (2), Nano Energy and Chem. Soc. Rev.</i>                            | PhD Excellence Scholarship, UNESCO Chair MATECSS  |  | Professor at Sichuan University, Chengdu (China)  |
| (co-supervised)                              | PhD, Sept. 2014 – Aug. 2019                            | Published as 1 <sup>st</sup> author in <i>Appl. Cat. B and Int. J. Hydrogen Energy (2)</i>  | PhD Excellence Scholarship, UNESCO Chair MATECSS  |  | Lecturer at University of Dar Es Salaam (Tanzania)  |
| (co-supervised)                              | PhD, Sept. 2014 – Aug. 2021                            | Published as 1 <sup>st</sup> author in <i>Chem. Mater. and Chem. Sci.</i>   |   |  |   |
|  | PhD Feb. 2014 – Dec. 2020                              | Published as 1 <sup>st</sup> author in <i>J. Power Sources, Catalysis Today and Chem. Eng. J.</i>   |   |  |   |
| (previously at Qingdao University, China)    | PhD May 2015 – July 2021                               | Published as 1 <sup>st</sup> author in <i>Nanotechnology, Mater. &amp; Design, Nanoscale and Adv. Funct. Mater.</i>                         |   |  | Lecturer at Yantai University (China), Apr. 2022 – Present  |
| r Mohammadnezhad                             | PhD Sept. 2015 – Jan. 2020                             | Published as 1 <sup>st</sup> author in <i>Chem Plus Chem, Journal of the Electrochemical Society (2), ACS Photonics and Electroch. Acta</i> | FRQNT PhD Fellowship  |  | Research Engineer in industry (Silfab Solar Inc., Mississauga, ON)                                |
| (previously at UESTC, Chengdu, China)        | PhD Sept. 2015 – Dec. 2018                             | Published as 1 <sup>st</sup> author in <i>Nano Energy, Adv. En. Mater. and Adv. Sci.</i>  | Fellowship from China Scholarship Council (CSC)   |  | Full professor at UESTC (Chengdu); UESTC 100-Talents Plan awards                                  |

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|---|---|---|--|--|---|
| (previously at Chengdu Green Energy Research Centre)          | PhD<br>Mar. 2016 – Mar. 2021  | Published as 1 <sup>st</sup> author in <i>Nanoscale</i> , <i>ACS Photonics</i> and <i>Nano Energy</i> | <b>PhD Excellence Scholarship, UNESCO Chair MATECSS Foreign Study Supplement in Taiwan (2018) FRQNT PhD Fellowship</b> |  | Assistant Professor, School of Advanced Materials and Nanotechnology, Xidian University                                 |
| (previously at Suzhou University)                             | PhD<br>Sept. 2016 – May 2022  | Published as 1 <sup>st</sup> author in <i>Small and Science China</i>                                 | <b>Scholarship from the Society of Vacuum Coaters</b>  |  | Since May 2022, Post-doctoral Fellow with Prof. Yabing Qi Okinawa Institute of Science and Technology, Japan            |
| (previously at Suzhou University)                             | PhD<br>Sept. 2016 – Aug. 2022                                       | Published as 1 <sup>st</sup> author in <i>J. Mater. Chem. A</i> and <i>Nano Energy</i>                |  |  | Post-doctoral Fellow at USTC (Suzhou campus)  |
| Liu, Jiabin   | PhD<br>Jan. 2017 – Present  | Published as 1 <sup>st</sup> author in <i>ACS Photonics</i> and <i>Appl. Surf. Sci.</i>               | <b>MITACS Fellowship in collaboration with Solstar Pharma</b>  |  | PhD student in my group, in progress  |
| (previously at University of Jinan)                           | PhD<br>May 2017 – Present   | Published as 1 <sup>st</sup> author in <i>Appl. Cat. B</i>  | <b>Fellowship from China Scholarship Council (CSC) and FQRNT PhD Fellowship</b>  |  | PhD student in my group, 2+2 program with University of Jinan, in progress  |
| (previously at University of Jinan)                           | PhD<br>Sept. 2017 – March 2023                                      | Published as 1 <sup>st</sup> author in <i>Appl. Cat. B and Small Methods</i>                          | <b>Fellowship from China Scholarship Council (CSC) and FQRNT PhD Fellowship</b>  |  | PhD student in my group, 2+2 program with University of Jinan, in progress  |
| (previously at University of Science and Technology, Beijing) | PhD<br>Sept. 2017 – Present   | Published as 1 <sup>st</sup> author in <i>J. Mater. Chem. A</i>                                       | <b>Fellowship from China Scholarship Council (CSC) and FQRNT PhD Fellowship</b>  |  | PhD student in my group, in progress  |
| (previously at Suzhou University)                             | PhD<br>Sept. 2017 – Sept. 2021                                      | Published as 1 <sup>st</sup> author in <i>J. Mater. Chem. A</i> and <i>Nanolett.</i>                  | <b>FQRNT PhD Fellowship</b>  | <b>MITACS Post-doctoral Fellowship</b> | MITACS post-doctoral fellow with Prof. Zhongwei Chen at University of Waterloo  |
| (University of Palermo)                                       | PhD<br>Sept. 2017 – Jan. 2022                                       | Published as 1 <sup>st</sup> author in <i>Tissue and Cells</i>  | <b>MITACS Fellowship in collaboration with Bioastra Technologies</b>   |  | Post-doctoral Fellow at Laval University with D. Mantovani  |
| (previously at Suzhou University)                             | MSc<br>Jan. 2018 – May 2019, then direct passage to the PhD program |   |  |  | MSc student in my group; direct passage to PhD program since June 2019, 2+2 program with Suzhou University, in progress |
| (transferred from)  | PhD   | Published as 1 <sup>st</sup> author in <i>PLOS</i>  | <b>MITACS PhD Fellowship in</b>  |  |   |

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|--|----------------------------|--|---|--|---|
| University; previously at McMaster University) | Feb. 2018 – July 2021      | <i>One</i> and <i>J. Coll. Int. Sci.</i>   | collaboration with Bioastra Technologies  |  |   |
|  | PhD Oct. 2018 – Aug. 2022  | Published as 1 <sup>st</sup> author in <i>J. Mater. Chem. A</i>  | PhD Excellence Scholarship, UNESCO Chair MATECCS PhD scholarship from the NSERC CREATE SEED program           |  | Just graduated                                      |
|  | PhD Jan. 2018 – Present    | Published as 1 <sup>st</sup> author in <i>Electroch. Comm., J. Mater. Chem. A</i> and <i>Nanoscale</i> |   |  | PhD student in my group, in progress                |
|  | PhD May 2019 – Present     | Published as 1 <sup>st</sup> author in <i>Small</i>  | PhD scholarship from the NSERC CREATE SEED program  |  | PhD student in my group, in progress                |
|  | PhD Sept. 2018 – Present   | Published as 1 <sup>st</sup> author in <i>Aggregate</i>  | MITACS Globalink PhD Scholarship  |  | PhD student in my group, in progress                |
| Putra Malaysia)                                | PhD Jan. 2020 – Present    |  |   |  | PhD student in my group, in progress                |
| (BSc at McGill University)                     | MSc Sept. 2020 – Dec. 2021 |  | Lionel-Boulet MSc Excellence Scholarship NSERC MSc scholarship Best MSc presentation at INRS graduate seminar |  | Process engineer at ASML in San Diego (California)  |
|  | MSc May 2021 – Present     |  | MSc scholarship from the NSERC CREATE SEED program  |  | MSc student in my group, in progress                |
|  | PhD May 2021 – Present     |  | Fellowship from China Scholarship Council (CSC)   |  | PhD student in my group, in progress                |
|  | PhD Sept. 2021 – Present   |  | Fellowship from China Scholarship Council (CSC)   |  | PhD student in my group, in progress                |
| (co-supervisor)                                | PhD Sept. 2021 – Present   |  | PhD Excellence Scholarship, UNESCO Chair MATECCS  |  | PhD student with Prof. D. Guay, co-supervised by me |
|  | PhD Sept. 2021 – Present   |  |   |  | PhD student in my group, in progress                |
|  | PhD May 2022 – Present     |  |   |  | PhD student in my group, in progress                |
|  | MSc Sept. 2022 – Present   |  | MITACS Globalink MSc Scholarship CREATE SEED MSc Scholarship  |  | MSc student in my group, in progress                |

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|  | MSc<br>Jan. 2023 – Present |  | <b>CREATE SEED MSc Scholarship</b> |  | MSc student in my group, in progress |
|  | PhD<br>Jan. 2023 - Present |  |                                    |  | PhD student in my group, in progress |

**Post-Doctoral Researchers (56)**

| <b>Fellow</b>   | <b>Period</b>         | <b>Research Achievements.</b>  | <b>Fellowships Awards</b> /  | <b>Present employment</b>  |
|---|-----------------------|--|--|--|
| (previously at University of Nagoya (Japan))          | Sept. 2004–April 2006 | Published two high impact papers as 1 <sup>st</sup> author in <i>J. Am. Chem. Soc.</i> and <i>J. Phys. Chem. C</i> (120 citations).  |  | Senior Scientist at Corning Japan, then Supervisor (R&D) at Eurofins   |
| o (previously at University of Firenze (Italy))       | March 2005–Aug. 2005  |  | <b>Fellowship Fondazione della Riccia (Italy)</b>  | High School Teacher  |
| (co-supervised, previously at University JF Grenoble) | July 2005–Aug. 2006   | Co-authored papers in <i>Phys. Rev. B</i> and <i>Appl. Phys. Lett.</i>   |  | Permanent research staff position at CEA/CNRS University JF Grenoble. Dr. Durand launched his own version of “Survival Skills for Scientists”. |
| (previously at EPFL)                                  | Sept. 2005–Aug. 2007. | Published 10 papers during post-doctoral work. In particular, as 1 <sup>st</sup> author in <i>Small</i> , <i>J. Phys. Chem. A</i> , <i>J. Mater. Chem.</i> , <i>Topics Curr. Chem.</i> | <b>Government of Canada Award (CBIE)</b> ; Invited Talk at NSBD in Morocco (2006) and Nanotech Insight (2007)  | <i>Full Professor at Ecole Polytechnique de Montreal.</i>  |
| (previously at Concordia University)                  | Nov. 2005–April 2008. | Published 3 papers during post-doctoral work. In particular, as 1 <sup>st</sup> author in <i>Nanoletters</i> and <i>Small</i> .  | <b>NSERC PDF Fellow</b> , NSERC Innovation Challenge Award; IUPAC Young Chemist Prize; Invited Talk at ICCE (2007) and Nanotech Insight (2007) Member of the College of the Royal Society of Canada Rutherford Medal in Chemistry (Royal Society of Canada) and Fellow of the Canadian | <i>Full Professor at INRS.</i>   |

|   |                       |  | Academy of Engineering  |  |
|---|-----------------------|--|-------------------------|--|
| █ (co-supervised) (previously at University JF Grenoble)          | Sept. 2006–Sept. 2007 | Published 2 papers during one year of post-doctoral work, one as first author in <i>Physica E</i> .                                |                         | Human Frontiers Science Fellowship (Harvard); Assistant Professor Univ. of Paris (UP7)   |
| █ (PhD at EPFL)   | Feb. 2007–Jan. 2008.  | Published 2 papers during one year of post-doctoral work, including one as 1 <sup>st</sup> author in <i>J. Chem. Phys.</i>         |                         | Permanent research staff position at CNRS Marseilles   |
| █ (PhD at University of Saarbrücken)                              | May–Sept. 2007        | Published 1 paper during 3 months of post-doctoral work, as 1 <sup>st</sup> author in <i>Nanotechnology</i> .                      |                         | Independent junior group leader, Institute of Materials Chemistry, Vienna University of Technology, Vienna, Austria (2010 – 2018); Heisenberg Position, Physics Institute, Goethe University Frankfurt, Germany (2019 – Present) |
| █ (co-supervised) (previously at University of Limoges)           | Oct. 2004–Sept. 2006  | Published 4 papers during post-doctoral work including one as 1 <sup>st</sup> author in <i>Surf. Sci.</i>                          |                         | Research Associate at University of Montreal.  |
| █ (co-supervised) (previously at University of Strasbourg)        | Nov. 2004–Aug. 2007.  | Published 4 papers during post-doctoral work. In particular, as 1 <sup>st</sup> author in <i>Adv. Mater.</i> and <i>Surf. Sci.</i> | <b>FRSQ Fellow PDF</b>  | Permanent research staff position at CNRS Strasbourg.  |
| █ (co-supervised) (previously at Ecole Polytechnique de Montreal) | Sept. 2008–April 2009 |  | <b>NSERC Fellow PDF</b> | NSERC PDF Fellow in Switzerland, then head of Blue Brain Project Administration  |
| █ (previously at QUT Brisbane, Australia)                         | Oct. 2008–May 2010    | Published two papers in <i>Nanoscale</i> and one in <i>ACS Nano</i> as 1 <sup>st</sup> author                                      | <b>FRSQ Fellow PDF</b>  | Associate Professor, University of Oxford, then Full Professor and Institute Director, Queensland  |

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|--|------------------------|---|--|--|
|  |                        |   |  | University of Technology   |
| ██████████ (previously at Dalian Institute of Technology, China) | Nov. 2008–April 2010   | Published 3 papers during post-doctoral work. In particular, as 1 <sup>st</sup> author in <i>Adv. Mater.</i> and a Communication in <i>J. Am. Chem. Soc.</i>  | <b>FQRNT PDF Fellow</b> (also received FRSQ PDF, declined)         | Humboldt Fellow at Max Planck Institute in Halle, Germany; then group leader at IFW Dresden, now <i>1000 talent young professor and Dean of the School of Energy</i> , Suzhou University (China) |
| ██████████ (previously at University of Trieste (Italy))         | May 2009–April 2011    | Co-authored papers in <i>Chem. Comm.</i> , <i>Chem. Eur. J.</i>   |  | High School Teacher in Udine (Italy)   |
| ██████████ (previously at McMaster University)                   | July 2009–Jan. 2011    |   |  | Grants and Contracts Officer at Toronto Metropolitan University  |
| ██████████ (PhD at INRS)   | Sept. 2009 – June 2015 | Created a sub group in my group, focusing on multifunctional materials for optoelectronics. Provisional patent approved. Published as 1 <sup>st</sup> author in <i>Nature Photonics</i> , <i>Adv. Mater.</i> , <i>Appl. Phys. Lett.</i> , <i>Nanoscale</i> and <i>J. Phys. Condens. Matt.</i> | <b>NSERC PDF Fellowship (also FQRNT PDF Fellowship (declined))</b> | Post-doc then Research Associate and group leader in my group within Joint Laboratory with Univ. Rome 2 (group leader). Researcher at ETS (Montreal) 2015 – 2019. Presently CEO of Watt by Watt  |
| ██████████ (previously at QUT Brisbane, Australia)               | Nov. 2009–March 2011   |   | <b>Marie Curie Fellowship</b> at KU Leuven with S. De Feyter       | <i>Lecturer at Griffith University</i> , Brisbane (Au).  |
| ██████████ (previously at LMU Munich, Germany)                   | Jan. 2010–Dec. 2011    | Published as 1 <sup>st</sup> author in <i>Chem. Comm.</i> and <i>Nanoscale</i> , co-authored other papers including a review in <i>Chem. Sci.</i>   |  | Group leader at MPI Stuttgart for Solid State Research with Klaus Kern, Then Research Scientist at Zentrum für Sonnenenergie in Stuttgart  |
| ██████████ (previously at University of Nancy)                   | Jan. 2010–Dec. 2013    | Published as 1 <sup>st</sup> author in <i>Chem. Sci.</i> , as co-author in <i>ACS Nano</i> , <i>Adv. Func. Mater.</i> , <i>Nanoscale</i> and <i>Chem. Sci.</i>  | <b>FRSQ PDF Fellow</b>   | Post-doc in my group, then staff Scientist at CNRS (Lyon) from Jan. 2014   |

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|---|-------------------------|--|--|---|
| ██████████ (previously at Murdoch University, Australia)              | Feb.–April 2010         |  |  | High School Teacher   |
| ██████████ (previously at Laval University, Quebec City (QC), Canada) | April 2010– Dec. 2012   | Published as 1 <sup>st</sup> author in <i>Appl. Surf. Sci.</i>   | <b>FQRNT PDF Fellow</b>                            | Unknown   |
| ██████████ (China)  | Sept. 2010 – Aug. 2013  | Published as 1 <sup>st</sup> author in <i>Adv. Func. Mater.</i> , <i>Chem. Comm.</i> (2), <i>Chem. Eur. J.</i> , <i>J. Phys. Chem. C</i>   |  | <i>Associate Professor</i> at University of Jinan (China)   |
| ██████████ (previously at Free University Berlin)                     | Sept. 2010–Aug. 2012    |  | <b>Banting PDF Fellow</b>                          | Post-doc in my group, then Research Associate with my colleague F. Legare.  |
| ██████████ (PhD MUN, Canada), co-supervised                           | Dec. 2010 – March 2012  |  |  | Started a company   |
| ██████████ (PhD in France)  | April 2011 – Dec. 2013  | Published as 1 <sup>st</sup> author in <i>Surf. Sci.</i> and <i>Chem. Asian J.</i>   |  | Post-doc at University of Strasbourg with P. Samori, then Post-doc at Univ. of Troyes, in progress.   |
| ██████████ (PhD University of Trento, Italy)                          | July 2012 – Sept. 2014. | Created a sub group in my group, focusing on Excitonic Solar Technologies (Dye Sensitized Solar Cells, Quantum Dot Solar Cells, Photoelectrochemical Cells for Hydrogen production and Luminescent Solar Concentrators). | <b>Marie Curie Outgoing International Fellow</b>   | Visiting scientist (group leader) in my group. Since October 2014, Chair Professor at Lulea University of Technology (Sweden); since Jan. 2019, Professor at Università Ca' Foscari, Venezia, Italy |
| ██████████ (Algeria, PhD at INRS in 2010)                             | Sept. 2012 – Dec. 2015  | Published as 1 <sup>st</sup> author in <i>Appl. Phys. Lett.</i> (2) and <i>Appl. Surf. Sci.</i>  |  | <i>Associate Professor</i> , College of Science and Engineering, Hamad Bin Khalifa University, Qatar Foundation, Doha, Qatar, July 2015 – Present   |
| ██████████ (China, PhD at INRS with D. Ma)                            | Sept. 2012 – Dec. 2017  | Published as 1 <sup>st</sup> author in <i>Nanoscale</i> (2), <i>J. Phys. Chem. C</i> , <i>Small</i>  | <b>NSERC PDF Fellowship</b> then <b>MITACS PDF</b> | <i>Professor</i> at Qingdao University since Sept. 2017   |

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| ██████████ (previously University of Sherbrooke)           | Co-supervised, Sept. 2012 – Dec. 2015            |   | <b>FRQNT PDF</b> and <b>CEGEP scholarship</b>        | Private sector employment   |
| ██████████ (PhD at Univ. of Shanghai, China)               | Nov. 2012 – June 2014                            |   | <b>FRQNT PDF Fellow, FRSQ PDF Fellow</b>             | Private sector employment.  |
| ██████████ (PhD in Germany, previously at LBNL)            | Nov. 2012 – May 2013                             |   |  | Product Line Manager at Asylum Research   |
| ██████████ (PhD at WSU Pullman)                            | Jan. 2013 – Oct. 2014                            |   |  | Co-Founder and VP R&D at IRYSTEC  |
| ██████████ (PhD at UQAM)                                   | Jan. 2013 – Dec. 2014                            |   |  | Post-doc in my group (collaboration with IREQ), then staff scientist position at IREQ.  |
| ██████████ (PhD at University of Bordeaux, France)         | Oct. 2013 – 2016                                 |   |  | R&D staff in industry, Sce France   |
| ██████████ (PhD at McGill)                                 | Feb. 2014 – May 2016                             | Published as 1 <sup>st</sup> author in <i>J. Mater. Res., Optics Express</i> and <i>Optics Comm.</i>  |  | <i>Lecturer</i> at University College Dublin (Ireland) since Jan. 2018                  |
| ██████████ (PhD at University of South Florida)            | June 2014 – June 2016                            | Published as first author in <i>Nanoscale</i>   |  | <i>Assistant Professor</i> at Appalachian State University, Boone (North Carolina), USA |
| ██████████ (PhD Indian Institute of Technology, Madras)    | July – Aug. 2014                                 |   |  | <i>Assistant Professor, Indian Institute of Technology</i>                              |
| ██████████, visiting scientist (PhD University of Nigeria) | Sept. – Nov. 2014<br>Then again in 2016 and 2018 |   | <b>APS Grant (three times)</b>                       | <i>Full Professor, University of Nigeria, Nsukka</i>                                    |
| ██████████, ██████████, ██████████ (PhD UNAM, Mexico)      | Nov. 2014 – Dec. 2019                            | Published as 1 <sup>st</sup> author in <i>J. Power Sources</i> and <i>Mater. Chem. Front., ECS Journal of Solid State Science and Tech., Acc. Chem. Res., Adv. Func. Mater.</i> and <i>Appl. Cat. B</i> | <b>Conacyt PDF Fellow</b><br><b>FRQNT PDF Fellow</b> | Senior R&D Scientist at Electro Carbon (Montreal)                                       |
| ██████████ (PhD Sun Moon University, South Korea)          | Dec. 2014 – March 2018                           | Published as 1 <sup>st</sup> author in <i>Nano Energy</i> and <i>J. Mater. Chem. A</i>  | <b>NSERC PDF</b>                                     | Principal Consultant at WorldEdit Biopharma Consulting                                  |
| ██████████ (PhD University of Brescia)                     | Feb. 2016 – June 2022                            | Published as 1 <sup>st</sup> author in <i>Adv. Func. Mater.</i> (2),  |  | Since July 2022, <i>Assistant Professor</i> at  |

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|   |  | <i>Nano Energy, Adv. Sci. and Nanoscale Horizons</i>                                 |   | Dalhousie University (Halifax, NS)  |
| [REDACTED] University of Sherbrooke)                              | April 1 <sup>st</sup> 2015 – March 31 <sup>st</sup> 2016 |  |   | Staff scientist in industry   |
| Dawit Gedamu (PhD Germany)  | May 1 <sup>st</sup> 2015 – June 30 <sup>th</sup> 2017    | Published as 1 <sup>st</sup> author in <i>Scientific Reports</i>                     |   | Yield Engineer at Intel Corporation   |
| [REDACTED] (PhD Laval University)                                 | Sept. 1 <sup>st</sup> 2016 – Jan. 2018                   |  | <b>CIHR PDF</b>   | Scientific advisor of the director of the Cervo research Centre, Université Laval |
| [REDACTED] (PhD Koç University, Istanbul, Turkey)                 | Oct. 1 <sup>st</sup> 2017 – Sept. 2018                   | Published as 1 <sup>st</sup> author in <i>ACS Appl. Mater. Int.</i>                  | <b>TUBITAK PDF</b>  | Lab Manager at NTU Singapore.   |
| Lucas Besteiro (PhD Universidad de Santiago de Compostela, Spain) | Oct. 1 <sup>st</sup> 2017 – Sept. 30 <sup>th</sup> 2020  | Published as 1 <sup>st</sup> author in <i>Nanoletters</i> .                          |   | Scientist in a Research Institute in Vigo (Spain)                                 |
| [REDACTED] (PhD at INRS with Prof. M.A. El Khakani)               | Jan. 1 <sup>st</sup> 2019 – Aug. 2021                    | Published as 1 <sup>st</sup> author in <i>ACS Photonics</i> and <i>Chem. Eng. J.</i> | <b>FRQNT PDF Fellowship</b>                                   | Chief Technology Officer at Watt by Watt  |
| [REDACTED] (PhD at Indian Institute of Science with D.D. Sarma)   | Nov. 1 <sup>st</sup> 2018 – Oct. 31 <sup>st</sup> 2020   | Published as 1 <sup>st</sup> author in <i>J. Chem. Phys.</i>                         |   | <i>Assistant Professor</i> at Ramananda College, Bishnupur (Bankura University)   |
| [REDACTED] (PhD at Politecnico di Milano, Italy)                  | Apr. 1 <sup>st</sup> 2019 – Aug. 31 <sup>st</sup> 2021   |  |   | Post-doc at Temple University (USA).  |
| [REDACTED] (PhD at INRS with Prof. F. Legare)                     | Dec. 1 <sup>st</sup> , 2018 – Dec. 31 <sup>st</sup> 2020 |  |   | Staff scientist at MPB Technologies   |
| [REDACTED] (PhD at University of Groningen, the Netherlands)      | September 2020 – October 2021                            | Published as 1 <sup>st</sup> author in <i>Nano Energy</i>                            |   | NREL (Golden, Colorado, USA), then <i>Assistant Professor</i> at Penn State       |
| [REDACTED]  | November 2020 – October 2021                             |  | <b>MITACS Fellowship</b> in partnership with Maxwellian, Inc. | Post-doc at ETS / Aeponyx, then Silicon photonics chip designer at Ciena.         |
| [REDACTED]  | April 2021 – June 2022                                   |  | <b>FRQNT PDF Fellowship</b>                                   | Post-doc at University of Windsor, in progress.                                   |
| [REDACTED]  | Oct. 2021 – Sept. 2022                                   |  | <b>MITACS Fellowship</b> in                                   | Research scientist at Watt by Watt.   |

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|  |                      |  | partnership with Watt by Watt                                    |   |
|  | Sept. 2021 – Present |  | <b>M. Hildred Blewett Fellowship</b> , American Physical Society | Post-doc (group leader) in my group, as of Oct. 1 <sup>st</sup> 2022, Research Associate, in progress |
|  | July 2022 – Present  |  | <b>FRQNT PDF Fellowship</b>                                      | Post-doc in my group, in progress   |
|  | Jan. 2023 – Present  |  | <b>FRQNT PDF Fellowship</b>                                      | Post-doc in my group, in progress   |

**Research Assistants / Associates (6)**

|  |   |   |   |  |  |
|--|---|---|---|--|--|
|  | (previously at INRS)                              | May–Aug. 2004<br>Research Assistant   |   | <b>NSERC PhD Scholarship</b>   | Staff scientist at IREQ  |
|  | (previously at Queen's University (Kingston, ON)) | July 2006–Oct. 2008 (post-doc)<br>Then 2009 – Dec. 2014<br>Research Associate | Published multiple papers during post-doctoral work; as 1 <sup>st</sup> author in <i>J. Am. Chem. Soc.</i> , <i>Nanotechnology</i> , <i>ACS Nano</i> , <i>Appl. Phys. Lett.</i>   | <b>NSERC PDF Fellowship</b> , <b>FQRNT PDF Fellowship (declined)</b> . | Associate Professor at QUT (Brisbane, Australia), awarded a Discovery Early Career Research Award by the ARC (2017)<br>Head of the School of Physics and Chemistry from 2020 |
|  | (previously at Queen's University (Kingston, ON)) | July 2006–Oct. 2008 (post-doc)<br>Then 2009 – Dec. 2014<br>Research Associate | Published multiple papers during post-doctoral work. In particular, as 1 <sup>st</sup> author in <i>Small</i> , <i>Proc. Nat. Acad. Sci.</i> and <i>Langmuir</i>  |  | Associate Professor and Principal Research Fellow at QUT (Brisbane, Australia)   |
|  | (PhD University of Sherbrooke)                    | Nov. 2013 – Present<br>Research Associate                                     | Created a sub group in my group, focusing on erbium doped fiber amplifiers, fiber bragg gratings and other aerospace materials. Published as 1 <sup>st</sup> author in <i>Appl. Phys. Lett.</i> and <i>J. Appl. Phys.</i> |  | Research Associate (group leader) in my group, in progress   |
|  | (PhD University of Waterloo)                      | Dec. 2014 – Dec. 2017<br>Research Associate                                   | Published as 1 <sup>st</sup> author in <i>Nature News &amp; Views</i> and <i>Nature Photonics News &amp; Views</i>  |  | Senior Scientist at Technical University Munich, Germany, then Assistant Professor and   |

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|  |   |   |  | Tier 2 Canada Research Chair at Lakehead University from July 2019 |
| ██████████ (PhD University of Toronto) | Aug. 2018 – Dec. 2021<br>Research Associate | Published as 1 <sup>st</sup> author a Perspective in <i>Science</i> . |  | Research Scientist at CBN Nano Technologies                        |

### Visiting Scholars / Scientists (21)

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|---|--|--|--|--|
| ██████████ (previously at University of Geneva)   | May 2006–July 2007<br>Visiting Fellow                                      | <b>Published four papers during visiting period. In particular, as 1st author in Appl. Phys. Lett.</b> | <b>Government of Canada Award (CBIE); Invited Talk at Nanotech Insight in Egypt (2007)</b>           | <i>Full Professor at Ecole Polytechnique de Montreal and Tier I Canada Research Chair.</i>                                   |
| ██████████ (PhD at EPFL in Switzerland)   | June 2010 – May 2011<br>Visiting Scientist                                 |  |  | <i>Staff scientist at Tekna (Sherbrooke)</i>   |
| ██████████ (PhD in Italy)   | Nov. – Dec. 2012<br>Visiting Scientist                                     | <b>Published as 1st author in J. Phys. Chem. Lett.</b>   |  | <i>Full Professor at Lulea University of Technology (Sweden).</i>  |
| ██████████ (PhD in Greece)  | June – Aug. 2013<br>Visiting Scientist                                     |  |  | <i>Researcher at Foundation for Research &amp; Technology Hellas, Crete</i>  |
| ██████████ (PhD in Spain)   | Aug. 2013<br>Visiting Scientist  |  |  | <i>Project Manager at BASF, then Director of NRW Chapter Sociedad CERFA</i>  |
| ██████████ (PhD at Ain Smas University, Cairo, Egypt, Professor at Al-Azhar University, Gaza) | October 2019<br>Visiting Scholar   |  | <b>Exchange Fellowship from FRQNT in the framework of the Quebec/Palestine collaborative program</b> | <i>Professor at Al-Azhar University, Gaza (Palestine)</i>  |
| ██████████ (PhD student at Xian Jiaotong University in China)                                 | Jan. 22 <sup>nd</sup> – Dec. 31 <sup>st</sup> 2018<br>Visiting Scholar     | Published as 1 <sup>st</sup> author in <i>Nano Energy</i>  | <b>Fellowship from China Scholarship Council (CSC)</b>   | Graduated from Xian Jiaotong University (China).   |
| ██████████ (PhD student at University of Electronic Science and Technology of China)          | Jan 30 <sup>th</sup> 2018 – Dec. 31 <sup>st</sup> 2018<br>Visiting Scholar | Published as 1 <sup>st</sup> author in <i>J. Mater. Chem. C</i>  |  | Post-doc at State Key Laboratory of Oil and Gas Reservoir and Exploitation, Southwest Petroleum University, Chengdu, (China) |

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|---|--|---|---|---|
| ██████████ (PhD student at Northeastern University in China)  | PhD<br>Oct. 2018 – July 2021<br>Visiting Scholar | Published as 1 <sup>st</sup> author in<br><i>Nano Energy</i>          |   | Graduated from Northeastern University (China), Jan. 2022                         |
| ██████████ (Sorbonne University (Paris))  | April 2018 – Aug. 2018,<br>Visiting Student      |   |   | Process Engineer  |
| ██████████, Harbin University of Science and Technology (China)   | Jan. 2018 – Dec. 2018<br>Visiting Fellow         |   |   | Professor at HUST (China).  |
| Hugo Gajardoni de Lemos, University of ABC (San Carlos, Brazil)   | Dec. 2018 – Jan. 2020<br>Visiting PhD student    | Published as 1 <sup>st</sup> author in<br><i>Solar Energy</i>         | <b>CAPES Fellowships</b><br>(Coordenação de Aperfeiçoamento de Pessoal de Nível Superior) and CNPq Foundation (Conselho Nacional de Desenvolvimento Científico e Tecnológico) | PhD student at University of ABC (San Carlos, Brazil)                             |
| ██████████ University of ABC (San Carlos, Brazil)   | Sept. 2019 – Feb. 2020<br>Visiting PhD student   | Published as 1 <sup>st</sup> author in<br><i>ACS Appl. Nanomat.</i>   | <b>CAPES Fellowship</b>   | Post-doctoral Fellow with Carlos Graeff at Universidade Estadual Paulista (UNESP) |
| ██████████, Institute of Materials Science and Technology (IMRE), Department of Physics, University of Havana | October 2017,<br>Visiting Fellow                 |   |   | <i>Professor at University of Havana, Cuba</i>                                    |
| ██████████ Kasdi Merbah University, Ouargla Algeria   | December 2017,<br>Visiting Fellow                | Published as 1 <sup>st</sup> author in<br><i>Solid State Sciences</i> |   | <i>Lecturer at Kasdi Merbah University, Algeria</i>                               |
| ██████████ Liaocheng University   | March 2022 – Feb. 2023                           |   | <b>CSC scholarship</b>  | Visiting scholar in my group  |
| ██████████ (PhD student at the University of Genova, Italy)   | June – Aug. 2022                                 |   |   | PhD student at Univ. of Genova  |
| ██████████ Agricultural University  | Sept. 2022 – Present                             |   | <b>CSC scholarship</b>  | Professor at Jilin Agricultural University  |
| ██████████, Professor at Al-Azhar University, Gaza  | July – August 2022<br>Visiting Scholar           |   | <b>Exchange Fellowship from FRQNT in the framework of the Quebec/Palestine collaborative program</b>  | <i>Professor at Al-Azhar University, Gaza (Palestine)</i>                         |
| ██████████ Sulphath, Professor at Saveetha university (India)   | Oct. 2022 – Apr. 2023<br>Visiting Scholar        |   | <b>Fellowship from DST</b>  | Professor at Saveetha university  |

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|  |   |  | <b>(Government of India)</b>                        |  |
| Bin Esa,<br>Universiti Brunei Darussalam | Dec. 2022 – March<br>2023<br>Visiting Scholar |  | <b>Fellowship from<br/>Government of<br/>Brunei</b> | PhD student at<br>Universiti<br>Brunei<br>Darussalam |

**RESEARCH FUNDING\* SINCE 2002****\$18 337 244**

\*calculated by dividing shared grants by number of PIs

- Operating funds \$8 790 919
- Equipment/Infrastructure funds \$9 546 325

**Funding currently / recently held**

| Title, PI and co-applicants  | Amount awarded  | Support type  | Funding Agency/program  | Period    |
|--|-----------------|---|---|-----------|
| <i>Canada Research Chair (Tier I) in Nanostructured Materials (individual)</i>   | <b>\$1.4M</b>   | Operating funds for basic research                          | <b>Canada Research Chairs</b>   | 2016–2023 |
| <i>Multifunctional materials: structure and properties</i>   | <b>\$340k</b>   | Operating funds for basic research                          | <b>NSERC Discovery Grant</b>  | 2018–2023 |
| <i>Multifunctional materials: structure and properties</i>   | <b>\$120k</b>   | Operating funds for basic research                          | <b>DGDND – DND/NSERC Discovery Grants Supplements</b>   | 2018–2021 |
| <i>Infrastructure for Advanced Imaging (PI F. Rosei, with 9 others across Canada)</i>  | <b>\$14.8M</b>  | Funds to acquire a Dynamic Transmission Electron Microscope | <b>CFI and MDEIE</b>  | 2013–2015 |
| <i>Tandem luminescent solar concentrators based on rare earth doped SiAlON and quantum dot thin films, with WattbyWatt Inc, PI F. Rosei</i>  | <b>\$200k</b>   | Operating costs   | <b>NSERC Alliance &amp; PSO International Quebec</b>  | 2021–2022 |
| <i>“Development of high power photoactive Erbium and Erbium-Ytterbium doped fibers for ultra-fast satellite telecommunications”, with MPB Communications Inc., Pi-SOLTECH, PI F. Rosei with C. Chilian</i> | <b>\$700.5k</b> | Operating costs   | <b>NSERC &amp; PRIMA Quebec</b>   | 2021–2024 |
| <i>Towards sustainable development: improving hydrogen production and integrating it in the global energy system, PI F. Rosei with D. Podmetina and J. Meadowcroft</i>                                     | <b>\$250k</b>   | Operating costs   | <b>NFRF</b>   | 2021–2023 |
| <i>Modules solaires de 3eme génération à base de perovskites organométalliques, performants et à faible coût, PI F. Rosei in collaboration with X. Tong (UESTC, Chengdu, Chine)</i>                        | <b>\$190k</b>   | Operating costs   | Ministère de l'économie et de l'Innovation du Québec (MEI), Programme innovation – volet 1 – Soutien aux projets d'innovation – Appel de projets Québec-Chine | 2021–2024 |
| <i>Critical and Urgent Upgrade for Ultra High Vacuum Scanning Probe Microscopy Facility, PI F. Rosei</i>   | <b>\$150k</b>   | Equipment grant   | <b>NSERC RTI</b>  | 2020–2021 |
| <i>COVID-19 Prevention: “Hybrid Polymer / Photoactive Ceramic Self-Disinfecting Coating” in collaboration with Bioastra Technologies Inc. PI F. Rosei</i>  | <b>\$50k</b>    | Operating costs   | <b>NSERC Alliance</b>   | 2020–2021 |
| <i>COVID-19 Prevention: “Hybrid Polymer / Photoactive Ceramic Self-Disinfecting Coating” in collaboration with Bioastra Technologies Inc. PI F. Rosei</i>  | <b>\$30k</b>    | Operating costs   | <b>MITACS scholarship and grant (matching funds)</b>  | 2020–2021 |

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|--|----------------|---|--|-----------|
| <i>Plasmonic optical biosensor for COVID-19 detection, in collaboration with Maxwellian, Inc. PI F. Rosei</i>  | <b>\$50k</b>   | Operating costs   | <b>NSERC Alliance</b>  | 2020–2021 |
| <i>Plasmonic optical biosensor for COVID-19 detection, in collaboration with Maxwellian, Inc. PI F. Rosei</i>  | <b>\$45k</b>   | Operating costs   | <b>MITACS scholarship and grant (matching funds)</b>                             | 2020–2021 |
| <i>Photoelectrochemical biosensing for COVID-19: virus and antibodies, in collaboration with Solstar Pharma, PI F. Rosei</i>   | <b>\$50k</b>   | Operating costs   | <b>NSERC Alliance</b>  | 2020–2021 |
| <i>Photoelectrochemical biosensing for COVID-19: virus and antibodies, in collaboration with Solstar Pharma, PI F. Rosei</i>   | <b>\$45k</b>   | Operating costs   | <b>MITACS scholarship and grant (matching funds)</b>                             | 2020–2021 |
| <i>Synthèse d'encre actives pour des cellules photovoltaïques de nouvelle génération à base de pérovskites organométalliques avec Pi-Sol Technologies, PI F. Rosei</i>                     | <b>\$45k</b>   | Operating costs   | <b>MITACS scholarship and grant (matching funds) in collaboration with PiSol</b> | 2020–2021 |
| <i>New solid electrolyte architecture for lithium metal-based battery, PI F. Rosei</i>   | <b>\$450k</b>  | Support for Post-docs, PhD students and associated costs. | <b>NSERC Collaborative Research and Development Grant with IREQ</b>              | 2018–2021 |
| <i>Synthèse dynamique en surface de polymères -conjugués bidimensionnels, PI F. Rosei with D.F. Perepichka</i>   | <b>\$240k</b>  | Support for Post-docs, PhD students and associated costs. | <b>FRQNT equipe</b>  | 2020–2023 |
| <i>Development of CuO-doped phosphate glass in Hydrogel matrix for bone Regeneration in collaboration with Bioastra Technologies Inc., PI F. Rosei</i>                                     | <b>\$30k</b>   | Operating costs   | <b>MITACS scholarship and grant</b>  | 2020–2021 |
| <i>Fast, Atomic-Scale Investigation of Assembly and Reaction at Surfaces, PI F. Rosei</i>  | <b>\$123k</b>  | Equipment grant   | <b>NSERC Research and Tools Instruments</b>                                      | 2020      |
| <i>Nouvelles réactions de surface pour la synthèse de nanomatériaux semi-conducteurs à base de carbone, PI F. Rosei with D.F. Perepichka</i>   | <b>\$205k</b>  | Support for Post-docs, PhD students and associated costs. | <b>FRQNT equipe</b>  | 2017–2020 |
| <i>Matériaux naturels abondants pour l'électronique verte, PI C. Santato, with F. Rosei and one other</i>  | <b>\$205k</b>  | Support for Post-docs, PhD students and associated costs. | <b>FRQNT equipe</b>  | 2017–2020 |
| <i>Collaborative Research and Training Experience in Sustainable Electronics and Eco-Design (CREATE SEED), PI C. Santato, with F. Rosei and eight others</i>                               | <b>\$1.65M</b> | Training program for graduate students                    | <b>NSERC CREATE</b>  | 2020–2026 |
| <i>Highly flexible perovskite oxide nanostructures-based hybrid nanogenerators for autonomous wearable devices and body metric applications (PI F. Rosei with R. Nechache and T. Falk)</i> | <b>\$622k</b>  | Support for Post-docs, PhD students and associated costs. | <b>NSERC Strategic Project Grant</b>   | 2016–2019 |
| <i>Nanoscale spatio-temporal characterization of multiferroic materials for optimization of structure and function (individual)</i>  | <b>\$250k</b>  | Funds for basic research                                  | <b>NSERC Steacie Fellowship</b>  | 2014–2016 |
| <i>(Nanoscale spatio-temporal characterization of multiferroic materials for optimization of structure and function) (individual)</i>  | <b>\$180k</b>  | Funds for release from teaching and administration        | <b>NSERC Steacie Fellowship Support</b>  | 2014–2016 |

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|---|-----------------|--|---|-----------|
| <i>Infrastructure for the synthesis and characterization of nanostructured metal functionalized multiferroic materials (individual)</i>   | <b>\$250k</b>   | Equipment grant: In situ XPS and cluster deposition tool                   | <b>Steacie Fellowship Equipment</b>   | 2014      |
| <i>Monolithic Integration of Nanostructured III/V semiconductors and perovskite oxides into photonic devices (individual)</i>   | <b>\$102k</b>   | Support for Post-docs, PhD students and associated costs.                  | <b>NSERC Collaborative Research and Development Grant plus MEIE passport innovation</b>                             | 2016–2017 |
| <i>Innovative erbium doped fiber amplifiers for radiation and harsh environment (individual)</i>  | <b>\$80k</b>    | Support for Post-docs, PhD students and associated costs.                  | <b>PRIMA Quebec</b>   | 2015–2017 |
| <i>Carbon Nanomaterials-based composites for hybrid organic photovoltaic devices (individual)</i>   | <b>\$285k</b>   | Support for Post-docs, PhD students and associated costs.                  | <b>NSERC Collaborative Research and Development Grant with Plasmionique and MPB Technologies, plus CIP (Quebec)</b> | 2015–2018 |
| <i>Optical process control for plasma-assisted deposition of functional nanoelectronic thin films (P.I. F. Legare, with F. Rosei and A. Ruediger)</i>   | <b>\$180k</b>   | Support for Post-docs, PhD students and associated costs.                  | <b>NSERC Collaborative Research and Development Grant</b>   | 2014–2016 |
| <i>Synthesis and characterization of Nanostructured Materials (individual)</i>  | <b>\$300k</b>   | Support for graduate students plus associated costs                        | <b>NSERC Discovery Grant</b>  | 2013–2018 |
| <i>Integration of optical sensors into smart composites and advanced instruments</i>  | <b>\$100k</b>   | Support for Post-docs, PhD students and associated costs.                  | <b>NSERC CRD, in partnership with MPB Technologies and Plasmionique</b>   | 2017–2019 |
| <i>Intégration de senseurs optiques au sein de matériaux et de dispositifs pour la réalisation de revêtements composites et d'instruments intelligents (individual)</i>                               | <b>\$100k</b>   | Support for Post-docs, PhD students and associated costs.                  | <b>PRIMA Quebec, in partnership with MPB Technologies and Plasmionique</b>  | 2017–2019 |
| <i>Canada Research Chair in Nanostructured Organic and Inorganic Materials (individual, renewed for a second term)</i>  | <b>\$500k</b>   | Partial salary support plus 2 PhD students and associated costs            | <b>Canada Research Chairs Program</b>   | 2008–2013 |
| <i>Centre for Self-Assembled Chemical Structures, P.I. L. Reven, with F. Rosei and 20 others</i>  | <b>\$412.5k</b> | Support for technicians, consumables                                       | <b>FQRNT Center CSACS</b>   | 2008–2014 |
| <i>Development of germanium fiber Bragg gratings and Er-doped fiber amplifiers for operation in harsh environments, PI F. Rosei with A. Ruediger and F. Schiettekatte</i>                             | <b>\$585k</b>   | Support for Post-docs, PhD students, summer students and associated costs. | <b>NSERC Strategic Project Grant</b>  | 2013–2016 |
| <i>Plasma Quebec, P.I. Joelle Margot, with F. Rosei and 20 others</i>   | <b>\$330k</b>   | Support for technicians, consumables                                       | <b>FQRNT Center Plasma Quebec</b>   | 2008–2016 |
| <i>Oxydes fonctionnels nanostructurés pour des applications innovantes dans les domaines photovoltaïque, des capteurs et dispositifs électroniques, PI F. Rosei with M. Chaker, D. Ma, F. Vetrone</i> | <b>\$1.24M</b>  | Support for Post-docs, PhD students, MSc students and associated costs.    | <b>MDEIE (Quebec) PSR</b>   | 2012–2015 |
| <i>Nouveaux phénomènes électroniques dans les polymères conjugués 2D, D. Perepichka, H. Guo, F. Rosei</i>   | <b>\$153k</b>   | Support for PhD students and associated costs                              | <b>FRQNT (Quebec)</b>   | 2012–2015 |
| <i>Structuration des surfaces par ablation laser pour l'obtention de propriétés de mouillage définies et l'augmentation de l'écoulement</i>   | <b>\$149k</b>   | Support for PhD students and associated costs                              | <b>FRQNT (Quebec)</b>   | 2012–2015 |

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| <i>des fluides, A.M. Kietzieg, R. Leask, F. Legare, F. Rosei</i>  |               |   |                       |           |
| <i>Nouveaux nanomatériaux pour élargir l'étendue de conversion de l'énergie solaire, B. Lennox, C. Santato, F. Vetrone, D.F. Perepichka, F. Rosei</i>   | <b>\$228k</b> | Support for PhD students and associated costs | <b>FRQNT (Québec)</b> | 2011–2014 |
| <i>Photovoltaïque d'oxydes accordable et à haute performance, A. Ruediger, V. Aimez, F. Rosei</i>   | <b>\$222k</b> | Support for PhD students and associated costs | <b>FRQNT (Québec)</b> | 2011–2014 |
| <i>Caractérisation des plasmas utilisés pour l'obtention de revêtements bactéricides: prédiction de la composition du revêtement à partir des caractéristiques spectroscopiques des plasmas, G. Laroche, D. Mantovani, F. Rosei</i> | <b>\$170k</b> | Support for PhD students and associated costs | <b>FRQNT (Québec)</b> | 2012–2015 |
| <i>Préparation et étude de semi-conducteurs bidimensionnels, J.F. Morin, F. Rosei</i>   | <b>\$193k</b> | Support for PhD students and associated costs | <b>FRQNT (Québec)</b> | 2012–2015 |
| <i>Interactions entre eumélanine et ions: une approche bioélectronique, C. Santato, F. Cicoira, M. Mateescu, A. Ruediger, F. Rosei</i>  | <b>\$186k</b> | Support for PhD students and associated costs | <b>FRQNT (Québec)</b> | 2012–2015 |