Prof. Francisco Molina-Lopez
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Department of Materials Engineering, KU Leuven, Belgium (Mar. 2024 – Present)

- **Associate Professor**.
- Active research: **Printed and flexible hybrid organic-inorganic energy harvesting and energy storage devices**.

Department of Materials Engineering, KU Leuven, Belgium (Mar. 2019 – Mar. 2024)

- **Assistant Professor** (tenure track).
- Active research: **Printed and flexible hybrid inorganic/organic energy harvesting and energy storage devices**.
- H2020 **ERC Starting Grant** 2021 awardee.

PROFESSIONAL EXPERIENCE

Hardware Engineering, Apple Inc., USA (Jan. 2018 – Feb. 2019)

- **Senior Touch Module Process Engineer**: Designing process steps, driving vendors in Asia, collaborating with cross-functional teams.

Department of Chemical Engineering, Stanford University, USA (Apr. 2016 – Jan. 2018)

- **Postdoctoral Researcher** at Bao Research Group.
- Project: **Inkjet-Printed Stretchable Organic and CNTs-Based Transistors for Biomedical Applications and Skin Electronics**.
- Supervisor: **Prof. Zhenan Bao**.

Department of Chemical Engineering, Stanford University, USA (Oct. 2014 – Apr. 2016)

- ***Swiss National Science Foundation Early PostDoc* research fellow** at Bao Research Group.
- Project: **Tuning the Morphology of Solution-Based Organic Semiconductors for Fully-Printed Electronics with Improved Performance.**
- Supervisor: **Prof. Zhenan Bao.**
- **Collaboration** in synchrotron X-ray characterization: Michael Toney's group at the **Stanford Synchrotron Radiation Lightsource (SSRL), SLAC** (USA).

EDUCATION AND TRAINING

Institute of Microengineering (IMT), EPFL, Switzerland (Mar. 2010 – Jun. 2014)

- **PhD** in Microsystems Engineering.
- Dissertation title: **Inkjet-Printed Multisensor Platform on Flexible Substrates for Environmental Monitoring.**
- Supervisors: **Dr. Danick Briand** and **Prof. Nico de Rooij** at the Sensors, Actuators and Microsystems Laboratory.
- Funding & Project: FP7-***Marie Curie*** Initial Training Network (ITN) **fellow** within the project ***FlexSmell*** - Gas Sensors on Flexible Substrates for Wireless Applications.
- **Research visit at VTT Technical Research Centre of Finland** under the supervision of **Dr. Maria Smolander** (Oct. 2011 – Jan. 2012 & Dec. 2012 – Feb. 2013).

University of Granada, Spain (Sep. 2002 – Sep. 2009)

- **Double major** in **Electrical Engineering** (**GPA: 8.091 / 10)** and **Physics** (**GPA: 8.265 / 10).**
- *Education abroad* **exchange program** at the **University of California San Diego,** USA (Sept. 2008 – Aug. 2009).
- *Erasmus* **exchange program** at **EPFL**, Switzerland (Oct. 2006 – Aug. 2007).
- **Awarded the highest GPA** in Electrical Engineering, class of 2008.

TEACHING AND MENTORING EXPERIENCE

- *Materials Physics and Technology for Nanoelectronics* course*,* **Master of Materials Engineering/Master of Nanoscience, Nanotechnology and Nanoengineering**, KU Leuven (Belgium), fall 2020-present.
- *Nanomaterials for Nanoelectronics* course*,* **Master of Materials Engineering/Master of Nanoscience, Nanotechnology and Nanoengineering**, KU Leuven (Belgium), Spring 2020-present.
- *Surface Science and Engineering* course*,* **Master of Materials Engineering**, KU Leuven (Belgium), spring 2020-present.
- *Industrial Internship/Experience* courses, **Master of Materials Engineering**, KU Leuven (Belgium), fall 2022-present.
- Supervised and currently supervising 3+ bachelor students, 18+ master students, 13 PhD students, and 7 postdoctoral researchers.

GRANTS

- **Horizon Europe Twinning Action, Widera project** *Stack-up: Strategic Twinning for Additive Manufacturing and Multilayer Stack-Up of Functional Printed Devices* (ref. 101339243), consortium budget 1.5 M€ (personal budget 343 k€), coordinator Institute of Solid-State Physics University of Latvia (ISSP UL), success rate ~ 9.4%, **Jan. 2027**.
- Research Foundation-Flanders (**FWO**) ***Junior Research Project****: AnICEotropic: 3D-Printed Ice-templated Anisotropic Organic Thermoelectrics* (ref. G024426N), budget 497.1 k€, success rate ~31%, **Dec. 2025.**
- **European Union ERC-Proof of Concept (PoC)** *SUSTEG: Sustainable Thermoelectric Generators for Low-Power Applications* (ref. 101248534), budget 150 k€, success rate ~ 35%, **Jul. 2025**.
- **KU Leuven** Internal Funding ***C2***: *LaPSusTec: Laser-printed flexible sustainable thermoelectrics,* (ref. C2E/25/004), budget 550 k€, success rate 25%, **Sept. 2025**.
- Belgium Excellence of Science (**EOS**): *CaloritrOnics iN magNEtiC Weyl semimeTals (CONENCT) (ref. 40007563)*, consortium budget 4 M€ (personal budget 667.7 k€), coordinator UC Lovain (Belgium), success rate ~ 20% (based on previous call), **Dec. 2021**.
- **KU Leuven** Internal Funding Interdisciplinary Network (**ID-N**): *Understanding and boosting the performance of organic thermoelectrics by a tailored molecular design guided by experiments and simulations (ref. IDN/21/012)*, budget 700 k€ shared with Prof. G. Koeckelberghs & Prof. D. Escudero (Dept. Chemistry, KU Leuven), success rate 47%, **Oct. 2021**.
- **KU Leuven** Internal Funding ***C1***: *Towards additive manufacturing of flexible thermoelectric energy harvesters: boosting the performance by laser sintering-induced nanostructuring* (ref. C14/21/078), budget 390 k€, success rate 45%, **Sept. 2021**.
- Research Foundation-Flanders (**FWO**) ***Junior Research Project****: Printed organic photovoltaics for energy harvesting in smart contact lenses* (ref. G065021N), budget 409.8 k€, success rate 21.4%, **Dec. 2020.**
- **European Union *H2020 ERC-2020-STG*** *3DALIGN*: *Enhancing the performance of 3D-printed organic thermoelectrics by electric field-assisted molecular alignment* (ref. 948922), budget 1.711 M€, success rate 13%, **Sept. 2020.**

MEMBERSHIPS

- IEEE, Electron Devices Society (EDS) Benelux Section Chapter Vice Chair.
- Materials Research Society (MRS).
- Leuven Brain Institute (LBI); KU Leuven Institute for Micro- and Nanoscale Integration (LIMNI); KU Leuven Additive Manufacturing Institute.

ACADEMIC/TEACHING HONORS AND AWARDS

- Invited as **Guest Professor** by the ITODYS group, Université de Paris Cité (France), Jul. 2025.

- Selected by the journal ***Advanced Materials*** in the special issue ***Rising Stars*** in Dec. 2023.
- Received the *Gouden Krijtje* (*Golden Chalk*) award for the **best teacher** and the "**funniest teacher**" in the Master of Nanoscience, Nanotechnology and Nanoengineering, KU Leuven (Belgium) by the VTK students association, **academic year 2022/2023** and **2024/2025**, respectively.
- Awarded the ***Swiss National Science Foundation Early PostDoc Mobility*** **Fellowship**, *Fully-printed organic electronics and sensors on flexible substrates for wearable point-of-care applications.* Budget to cover living and travel expenses as a postdoctoral researcher at Stanford University from **Oct. 2014 to Mar. 2016**.
- Awarded for obtaining the **highest GPA** (8.091 out of 10) in the major of **Electrical Engineering** at the **University of Granada** (Spain) in 2008.
- Elected by the University of California to participate in its undergrad *Education Abroad Program* in 2007.
- Honors in Final Degree Project (Semester Project at EPFL) in 2007.

EDITORIAL ACTIVITY

- **Reviewer** of the international journals: *Sensors and Actuators A: Physical*, and *Sensors and Actuators B: Chemical* (Elsevier); *Flexible and Printed Electronics* (IOPscience); *Energy & Environmental Science* (RCS); *ACS Energy Letters* (ACS); *Energy Material Advances* (Science Partner Journals); *Advanced Composites and Hybrid Materials*, *Nature Communications, NPJ Flexible Electronics, and Nature* (Springer Nature); *Advanced Materials*, *Advanced Energy Materials*, *Small* and *Advanced Science* (Wiley); *Device* and *Joule* (Cell Press).

OUTREACH

- Symposia organization: EN 09: *Innovations in materials and processes for printed, flexible and stretchable energy-autonomous sensing systems* in the **2024 MRS Fall Meeting** in Boston (USA), 1-6 Dec. 2024; EL 18: *Material, Device, and Fabrication Innovations for Flexible, Stretchable, and Printed Electronics* in the 2023 **MRS Spring Meeting** in San Francisco (USA), 10-14 Apr. 2023.
- *KU Leuven Inside* 600th anniversary open-doors weekend demo *Nanofillers for an elastic electronic skin*: I organized a stand to show my group's research to the general public (estimated audience **~ 1000 people**) over a weekend. Leuven (Belgium), 15-16 Feb. 2025.

PROJECT REVIEW EXPERIENCE

- Member of the panel for research mobility grants, Research Foundation-Flanders (**FWO**), Belgium, 2026-Present.
- Reviewer of European Research Innovation Actions **(RIA)** projects, European Union, 2025.
- Reviewer of European Innovation Council (**EIC**) **Pathfinder** projects, European Union, 2023.

- Member of the **panel W&T6:** Chemical Engineering, Material Sciences, Research Foundation-Flanders (**FWO**), Belgium, 2022-2024.
- Reviewer for the **ANR** (Agence Nationale de la Recherche), France, 2021.

SELECTED PUBLICATIONS (*h* index = 28, complete list in https://scholar.google.com/citations?user=YaAZ2PIAAAAJ&hl=en)

1. J. Park, S. Guchait, T. Sinha, C. Verduyckt, V. Ignatious, T.-Y. Yu, H. Xia, A. Kaidarova, M. Ng, S. Detavernier, M. Rosenthal, M. Alessio, D. Escudero, G. Koeckelberghs, **F. Molina-Lopez**, *Dicationic Ion-Pair Doping Enables Stable and High-Performing Conducting Polymers for Organic Thermoelectrics*, **Advanced Science** (2026), *Accepted***.**
2. I. Florenciano, V. Naenen, A. Kaidarova, M. Ng, **F. Molina-Lopez**, *Digital and scalable laser-based fabrication of reusable bismuth telluride thermoelectrics with superior performance and mechanical flexibility*, **npj Flexible Electronics** (2026). DOI: 10.1038/s41528-026-00561-5
3. T.-Y. T. Yu, T.-Y. Chou, V. Naenen, B. Zhang, H. E. Baysal, B. Bulut, M. Rosenthal, **F. Molina-Lopez**, *Unleashing the potential of Raman spectroscopy to estimate PEDOT:PSS doping level and crystalline morphology*, **Advanced Science** (2026), vol. 13, e13726. DOI: 0.1002/advs.202513726
4. M. Shojaeian*, I. Florenciano, C. Wang*, N. Kuznetsova, **F. Molina-Lopez***, M. Kraft, *Stress-engineered 3D thin-film micro-thermoelectrics for integrated energy harvesting and thermal management*, **Nano Energy** (2026), vol. 147, 111595. DOI: 10.1016/j.nanoen.2025.111595
5. T.-Y. Chou, T. Sinha, X. Jiang, E. Akdogan, B. Siegmund, M. Rosenthal, K. Vandewal, **F. Molina-Lopez**, *Process and design guidelines for inkjet-printed organic photovoltaic cells – using the example of PM6:Y6*, **Materials Advances** (2025), vol. 6, 8506 - 8519. DOI: 10.1039/d5ma01033k.
6. B. Zhang, T.-Y. Yu, A. Meulemans, V. Naenen, M. Rosenthal, D. Escudero, **F. Molina-Lopez**, *Brush and Dry: A Posttreatment-Free Simple Process to Pattern PEDOT:PSS Films with Enhanced Thermoelectric Performance via Shear Flow-Induced Morphology Tuning*, **ACS Applied Materials & Interfaces** (2025), vol. 17 (13), 20236-20247. DOI: 10.1021/acsami.5c00803.
7. A. Kaidarova, V. Naenen, R. Windey, N. Goossens, T. Sinha, V. Ignatious, B. Zhang, T. P. Mach, M. Wevers, J. Vleugels, **F. Molina-Lopez***, Hybrid organic-inorganic functional nanocomposites: From basis to applications in stretchable sensing and energy devices,* **Materials Science & Engineering: R** (2025), vol. 163, 100933. DOI: 10.1016/j.mser.2025.100933.
8. H. E. Baysal, T.-Y. Yu, V. Naenen, S. De Smedt, D. Hiz, B. Zhang, H. Xia, I. Florenciano, M. Rosenthal, R. Cardinaels, **F. Molina-Lopez***, Omnidirectional 3D Printing of PEDOT: PSS Aerogels with Tunable Electromechanical Performance: A Playground for Unconventional Stretchable Interconnects and Thermoelectrics,* **Advanced Science** (2025), vol. 12, 2412491. DOI: 10.1002/advs.202412491.
9. V. Toral, S. Gómez-Gijón, F. J. Romero. D. P. Morales, E. Castillo, N. Rodríguez, S. Rojas, **F. Molina-Lopez***, A. Rivadeneyra**, Future Trends in Alternative Sustainable Materials for Low-Temperature Thermoelectric Applications,* **ACS Applied Electronic Materials** (2024), vol. 6, 8640-8654. DOI: 10.1021/acsaelm.4c00770.

10. Y. Tian, I. Florenciano, H. Xia, Q. Li, H. E. Baysal, D. Zhu, E. Ramunni, S. Meyers, T.-Y. Yu, K. Baert, T. Hauffman, S. Nider, B. Göksel, **F. Molina-Lopez**, *Facile fabrication of flexible and high-performing thermoelectrics by direct laser printing on plastic foil*, **Advanced Materials** (2024), vol. 36, 2307945. DOI: 10.1002/adma.202307945.
11. N. Goossens, K. Lambrinou, B. Tunca, V. Kotasthane, M. C. Rodríguez González, A. Basylevska, P. O. Å. Persson, S. De Feyter, M. Radovic, **F. Molina-Lopez**, J. Vleugels, *Upscaled Synthesis Protocol for Phase-Pure, Colloidally Stable MXenes with Long Shelf Lives,* **Small Methods** (2024), vol. 8, 2300776, DOI: 10.1002/smtd.202300776.
12. W. Monnens, B. Zhang, Z. Zhou, L. Snels, K. Binnemans, **Francisco Molina-Lopez***, Jan Fransaer*, *Scalable electrodeposition of liquid metal from an acetonitrile-based electrolyte for highly-integrated stretchable electronics*, **Advanced Materials** (2023), vol. 35, 2305967. DOI: 10.1002/adma.202305967.
13. Y. Tian and **F. Molina-Lopez***, *Boosting the performance of printed thermoelectric materials by inducing morphological anisotropy*, **Nanoscale** (2021), vol. 13, 5202. DOI: 10.1039/D0NR08144B.
14. J. Liu, J. Wang, Z. Zhang, **F. Molina-Lopez**, G.-J. N. Wang, B.C. Schroeder, X. Yan, Y. Zeng, O. Zhao, H. Tran, T. Lei, Y. Lu, Y.-X. Wang, J. B.-H. Tok, R. Dauskardt, J. W. Chung, Y. Yun and Z. Bao, *Fully Stretchable Active-Matrix Organic Light-Emitting Electrochemical Cell Array*, **Nature Communications** (2020), vol. 11, 3362. DOI: 10.1038/s41467-020-17084-w.
15. U. Kraft, **F. Molina-Lopez**, D. Son, Z. Bao and B. Murmann, *Ink Development and Printing of Conducting Polymers for Intrinsically Stretchable Interconnects and Circuits*, **Advanced Electronic Materials** (2019), vol. 6, 1900681. DOI: 10.1002/aelm.201900681.
16. **F. Molina-Lopez**, T. Z. Gao, U. Kraft, C. Zhu, T. Öhlund, R. Pfattner, V. R. Feig, Y. Kim, S. Wang, Y. Yun and Z. Bao, *Inkjet-Printed Stretchable and Low Voltage Synaptic Transistor Array,* **Nature Communications** (2019), vol. 10, 2676. DOI: 10.1038/s41467-019-10569-3.
17. G. Chen, R. Rastak, Y. Wang, H. Yan, V. Feig, Y. Liu, Y. Jiang, S. Chen, F. Lian, **F. Molina-Lopez**, L. Jin, K. Cui, J.W Chung, E. Pop, C. Linder and Zhenan Bao, *Strain- and Strain-Rate-Invariant Conductance in a Stretchable and Compressible 3D Conducting Polymer Foam*, **Matter** (2019), vol. 1. DOI: 10.1016/j.matt.2019.03.011.
18. J. Xu, H.-C. Wu, C. Zhu, A. Ehrlich, L. Shaw, M. Nikolka, S. Wang, **F. Molina-Lopez**, X. Gu, S. Luo, D. Zhou, Y.-H. Kim, G.-J.N. Wang, K. Gu, V.R. Feig, S. Chen, Y. Kim, T. Katsumata, Y.-Q. Zheng, H. Yan, J.W. Chung, J. Lopez, B. Murmann and Z. Bao, *Multi-Scale Ordering in Highly Stretchable Polymer Semiconducting Films,* **Nature Materials** (2019), vol. 18, 594-601. DOI: 10.1038/s41563-019-0340-5.
19. A. Gasperini, G.-J.N. Wang, **F. Molina-Lopez**, H.-C. Wu, J. Lopez, J. Xu, S. Luo, D. Zhou, G. Xue, J.B.-H. Tok and Z. Bao, *Characterization of Hydrogen Bonding Formation and Breaking in Semiconducting Polymers under Mechanical Strain,* **Macromolecules** (2019), vol. 52 (6), 2476-2486. DOI: 10.1021/acs.macromol.9b00145.
20. D. Son, J. Kang, O. Vardoulis, Y. Kim, N. Matsuhisa, J.Y. Oh, J.W.F. To, J. Mun, T. Katsumata, Y. Liu, A.F. McGuire, M. Krason, **F. Molina-Lopez**, J. Ham, U. Kraft, Y. Lee, Y. Yun, J.B.-H. Tok and Z. Bao, *An integrated self-healable electronic skin system fabricated via dynamic reconstruction of a nanostructured conducting network,* **Nature Nanotechnology** (2018), vol. 13 (11), 1057-1065.

21. T.Z. Gao, T. Lei, **F. Molina-Lopez** and Z. Bao, *Enhanced Process Integration and Device Performance of Carbon Nanotubes via Flocculation*, **Small Methods** (2018), vol. 2 (10), 1800189.
22. G.-J.N. Wang, **F. Molina-Lopez**, H. Zhang, J. Xu, H.-C. Wu, J. Lopez, L. Shaw, J. Mun, Q. Zhang, S. Wang, A. Ehrlich and Z. Bao, *Nonhalogenated Solvent Processable and Printable High-Performance Polymer Semiconductor Enabled by Isomeric Nonconjugated Flexible Linkers*, **Macromolecules** (2018), vol. 51 (13), 4976-4985.
23. **F. Molina-Lopez**, H.-C. Wu, G.-J. N. Wang, H. Yan, L. Shaw, J. Xu, M.F. Toney and Z. Bao, *Enhancing Molecular Alignment and Charge Transport of Solution-Sheared Semiconducting Polymer Films by the Electrical ‐Blade Effect*, **Advanced Electronic Materials** (2018), vol. 4, 1800110.
24. S. Wang, J. Xu, W. Wang, G.-J.N. Wang, R. Rastak, **F. Molina-Lopez**, J.W. Chung, S. Niu, V.R. Feig, J. Lopez, T. Lei, S.-K. Kwon, Y. Kim, A.M. Foudeh, A. Ehrlich, A. Gasperini, Y. Yun, B. Murmann, J.B.-H. Tok and Z. Bao, *Skin electronics from scalable fabrication of an intrinsically stretchable transistor array*, **Nature** (2018), vol. 555 (7694), 83-88.
25. X. Gu, Y. Zhou, K. Gu, T. Kurosawa, Y. Guo, Y. Li, H. Lin, B.C. Schroeder, H. Yan, **F. Molina-Lopez**, C.J. Tassone, C. Wang, S.C.B. Mannsfeld, H. Yan, D. Zhao, M.F. Toney and Z. Bao, *Roll-to-Roll Printed Large Area All-Polymer Solar Cells with 5% Efficiency Based on a Low Crystallinity Conjugated Polymer Blend*, **Advanced Energy Materials** (2017), vol. 7 (14), 1602742.
26. Y. Wang, C. Zhu, R. Pfattner, H. Yan, L. Jin, S. Chen, **F. Molina-Lopez**, F. Lissel, J. Liu, N.I. Rabiah, Z. Chen, J.W. Chung, C. Linder, M.F. Toney, B. Murmann and Z. Bao, *A Highly Stretchable, Transparent and Conductive Polymer*, **Science Advances** (2017), vol. 3 (3), e1602076.
27. **F. Molina-Lopez**, H. Yan, X. Gu, Y. Kim, M.F. Toney, Z. Bao, *Electric Field Tuning Molecular Packing and Electrical Properties of Solution-Shearing Coated Organic Semiconducting Thin Films*, **Advanced Functional Materials** (2017), vol. 27 (8), 1605503.
28. X. Gu, H. Yan, T. Kurosawa, B.C. Schroeder, K.L. Gu, Y. Zhou, J.W.F. To, S.D. Oosterhout, V. Savikhin, **F. Molina-Lopez**, C.J. Tassone, S.C.B. Mannsfeld, C. Wang, M.F. Toney, Z. Bao, *Comparison of the Morphology Development of Polymer-Fullerene and Polymer–Polymer Solar Cells during Solution ‐Shearing Blade Coating*, **Advanced Energy Materials** (2016), vol. 6 (22), 1601225.
29. A. Vásquez Quintero, **F. Molina-Lopez**, E.C.P. Smits, E. Danesh, J. van den Brand, K. Persaud, A. Oprea, N. Barsan, U. Weimar, N.F. de Rooij, D. Briand, *RFID Label with Printed Multisensor Platform for the Monitoring of Perishable Goods*, **Flexible and Printed Electronics** (2016), vol. 1 (2), 025003.
30. **F. Molina-Lopez**, D. Briand, N.F. de Rooij, *Inkjet and Microcontact Printing of Functional Materials on Foil for the Fabrication of Pixel-Like Capacitive Vapor Microsensors*, **Organic Electronics** (2015), vol. 16, 136-147.
31. **F. Molina-Lopez**, R.E. De Araujo, M. Jarrier, J. Courbat, D. Briand and N.F. de Rooij, *Study of Bending Reliability and Electrical Properties of Platinum Lines on Flexible Polyimide Substrates*, **Microelectronics Reliability**, vol. 54 (11), 2542-2549.

32. E. Danesh, **F. Molina-Lopez**, M. Camara, A. Bontempi, A. Vásquez Quintero, D. Teyssieux, L. Thiery, D. Briand, N.F. de Rooij, K.C. Persaud, *Development of a New Generation of Ammonia Sensors on Printed Polymeric Hotplates*, **Analytical Chemistry** (2014), vol. 86 (18), 8951-8958.
33. J.F. Salmerón, **F. Molina-Lopez**, D. Briand, J.J. Ruan, A. Rivadeneyra, M.A. Carvajal, L.F. Capitan-Vallvey, N.F. de Rooij and A.J. Palma, *Properties and Printability of Inkjet and Screen-Printed Silver Patterns for RFID Antennas*, **Journal of Electronic Materials** (2014), vol. 86 (18), 604-617.
34. **F. Molina-Lopez**, D. Briand and N.F. De Rooij, *Decreasing the Size of Printed Comb Electrodes by the Introduction of a Dielectric Interlayer for Capacitive Gas Sensors on Polymeric Foil: Modeling and Fabrication*, **Sensors and Actuators B: Chemical** (2013), vol. 189, 89-96.
35. **F. Molina-Lopez**, T. Kinkeldei, G. Tröster, D. Briand, N.F. de Rooij, *Theoretical and Experimental Study of the Bending Influence on the Capacitance of Interdigitated Micro-Electrodes Patterned on Flexible Substrates*, **Journal of Applied Physics** (2013), vol. 114, 174907.
36. **F. Molina-Lopez**, A. Vásquez Quintero, G. Mattana, D. Briand, N.F. de Rooij, *Large-Area Compatible Fabrication and Encapsulation of Inkjet-Printed Humidity Sensors on Flexible Foils with Integrated Thermal Compensation*, **Journal of Micromechanics and Microengineering** (2013), vol. 23, 025012.
37. **F. Molina-Lopez**, D. Briand and N.F. de Rooij, *All Additive Inkjet Printed Humidity Sensors on Flexible Substrate*, **Sensors and Actuators B: Chemical** (2012), vol. 166-167, 212-222.

INVITED PRESENTATIONS

1. **F. Molina-Lopez**, *TBD,* Materials Research Society Spring (**2027 MRS Spring)** in Seattle (USA), 5 – 9 April 2027.
2. **F. Molina-Lopez**, *TBD,* International Conference on Organic and Hybrid Thermoelectrics (**ICOT2026**) in Istanbul (Turkey), May 2027 (expected).
3. **F. Molina-Lopez**, J. Park, S. Guchait, *A universal dopant for performing and stable conducting p-type polymers,* Materials for Sustainable Development Conference (**MATSUS Spring**) in Barcelona (Spain), 23 – 27 March 2026.
4. **F. Molina-Lopez**, *Organic thermoelectrics for skin heat harvesting: materials, device design, and skin coupling considerations*, European Materials Research Society (**2025 E-MRS)** in Strasbourg (France), 26 – 30 May 2025.
5. **F. Molina-Lopez**, *2D- and 3D-printed organic thermoelectric materials leading to performing devices*, **Conference on Functional Materials Engineering** organized by IMO-IMOMEC in Hasselt (Belgium), 30 September – 3 October 2024.
6. **F. Molina-Lopez**, *Reconciling Material Morphology Control and Device Integration for High-Performance Flexible and Printed Organic Thermoelectrics,* The International Conference on Flexible and Printed Electronics (**ICFPE 2024**) in Taipei (Taiwan), 28-30 August 2024.

7. H. Baysal, **F. Molina-Lopez**, *Direct Ink Writing of Stretchable Organic Thermoelectrics*, The 5th IEEE International Flexible Electronics Technology Conference (**IEEE IFETC 2023**) in San Jose (California, USA), 13-16 August 2023.
8. **F. Molina-Lopez**, *Uniaxial Molecular Anisotropy as a Strategy to Boost the Performance of Organic Electronics: a Case Study for OFETs and Thermoelectrics*, The 16th edition of the International Conference on Organic Electronics (**ICOE 2023**) in Madrid (Spain), 3-7 July 2023.
9. **F. Molina-Lopez**, *Emerging Thermoelectric Generators Based on Printed and Flexible Electronics Technology*, In Proceedings of the 19th IEEE Sensors Conference, **IEEE SENSORS 2020**, Virtual Conference, 25-28 October 2020.

PARTICIPATION IN INTERNATIONAL DOCTORAL COMMITTEES

1. Matin Forouzmehr (PhD candidate), *Thin-Film Transistors and Circuits from Solution Processing and ALD and Their Integration into Sensor Devices*, **Tampere University** (Finland), supervisor Prof. Donald Lupo & Prof. Paul Berger, **Oct. 2025.**
2. Anders F. Wolstrup (PhD candidate), *3D Printed Constriction Resistance Based Electromechanical Sensors*, **Technical University of Denmark-DTU** (Denmark), supervisor Prof. Gabriel Zsurzsan, **May 2025.**
3. Dries Theunissen (PhD candidate), *Widening the Gap: Optimizing Donor and Acceptor Materials for Organic Photovoltaics*, **Hasselt University** (Belgium), supervisor Prof. Wouter Maes, **Jan. 2025.**
4. Joao Silvano (PhD candidate), *Fabrication of Monolithic Perovskite-on-Chalcogenide Photovoltaic Tandem Devices by Ultrasonic Spray Coating*, **Hasselt University** (Belgium), supervisor Prof. Wim Deferme, **Sept. 2024**.
5. Nathan Pataki (PhD candidate), *Printed Organic Micro Thermoelectric Generators*, **Italian Institute of Technology-IIT & The Polytechnic University of Milan** (Italy), supervisor Dr. Mario Caironi, **Sept. 2024**.
6. (Opponent of) Karem Lozano Montero (PhD candidate), *Development of Printed Devices for Self-Powered Wearable Electronics*, **Tampere University** (Finland), supervisor Prof. Matti Mäntysalo, **Apr. 2024.**
7. Raheel Riaz (PhD candidate), *Triboelectric Nanogenerators: From Energy Harvesters to Wearable Sensors*, **Free University of Bolzano** (UNIBIZ, Italy), supervisors Prof. P. Lugli, Dr. M. A. Costa Angeli, and Prof. L. Petti, **Aug. 2023**.
8. Francisco J. Romero (PhD candidate), *Design, Modeling and Fabrication of Flexible Sensors for IoE Applications using Emerging Technologies*, **University of Granada** (Spain), supervisors Prof. D. P. Morales Santos and Prof. N. Rodriguez, **Jul. 2021**.
9. Fernando Moreno Cruz (PhD candidate), *Wireless power for IoT*, **University of Granada** (Spain), supervisors Prof. D. P. Morales Santos and Dr. A. Rivadeneyra, **Dec. 2020**.
10. Cecilia Teixeira da Rocha (PhD candidate), *Improved Organic Semiconductor Thin-Film Formation through the Addition of Vibrations to the Solution Shearing Method*, **Dresden University of Technology** (Germany), supervisor Prof. S. Mannsfeld, **Jun. 2020**.

OTHER PERSONAL SKILLS

- Languages: **Spanish** (Native), **English** (Fluent), **French** (Fluent), **Dutch** (Intermediate, B2), **Mandarin** (Beginner).
- Extracurricular activities: certificate for intermediate level in piano from the Superior Conservatory of Music Victoria Eugenia of Granada (Spain).