Curriculum vitae *Giulia Grancini*

PERSONAL INFORMATION & TRACK RECORD

Surname, Name: **Grancini, Giulia**

Date of birth: **05/05/1984**; Nationality: **Italian**

Highly Cited Scientist for five years since 2019 Publons.
H index=54 (scopus); total number of citations >23000 (scopus).
N. of scientific Publications: 163; 5 patents; one book chapter.
Researcher unique identifiers:

ORCID ID: 0000-0001-8704-4222; Scopus ID: 6508101563;
Researcher ID: K-9060-2013; Web of Science Researcher ID: AAH-3557-2019

web site: https://pvsquared2.unipv.it/

EDUCATION

21/02/2012	**PhD *cum laude* in Physics,** Politecnico di Milano, Physics Department, Milano, Italy; PhD SupervisorS: Prof. Guglielmo Lanzani & Prof. Giulio Cerullo
2008	Master Degree in Physical Engineering, Politecnico di Milano Milano, Italy

CURRENT POSITIONS

07/2019 – now	**Associate Professor, Chemistry Department, University of Pavia**, Pavia, Italy Head of the PVsquared2 team of 12 scientists, responsible for the PVsquared2 laboratories. *Principal Investigator (PI)* of the ERC StG 2018 "HYNANO", ERC POC 2022 "Spike", Fare Project "Express", Fondazione Cariplo "FLHYPER" and MITE "GOPV" for a total of 5.3M Euros to my name since 2019. **Mission:** advance in fundamental and applied science on emerging solar technology: from developing advanced materials to sustainable photovoltaic technologies. **Output:** 40 scientific publications, 2 patents.
07/2020 –	**Editorial Advisory Board** of Chem Soc Rev, ACS Energy Letters, and JACS Au American Chemical Society

PREVIOUS POSITIONS

05/2017 – 06/2019	**Team Leader**, **École Polytechnique Fédérale de Lausanne** (EPFL) Valais, Sion, Switzerland. **Mission:** *Principal Investigator* of the Ambizione Energy HYPER grant (740 kCHF), Responsible of a group of 2 PhD students and 2 Post docs. **Output:** 23 publications, 10 invited talks, 10 oral contributions to conferences.
07/2022 – 01/2024	**Associate Editor** of Chem Soc Rev IF=46.2
09/2015 – 05/2017	**Scientist**, **École Polytechnique Fédérale de Lausanne** (EPFL) Valais, Sion, Switzerland with Prof. M. k. Nazeeruddin *EPFL COFUND Marie Skłodowska-Curie* (68 kCHF), **Mission:** Manager of optical spectroscopy lab on advanced perovskite solar cell. Responsible of a group of 2 PhD students and 1 Post doc. Co-PI of Project EPISODE (500K CHF) and of CTI project (760K CHF) **Output:** 10 publications, 1 book chapter, invited speaker at 7 international meetings.
01/2012 – 08/2015	**Post-Doc Researcher**, **Istituto Italiano di Tecnologia** (IIT), under MESO European Project of Dr. Petrozza. **Mission:** Understanding hybrid perovskites physics. Management of spectroscopy lab and of 4 PhDs and 2 students. **Output**: 30 publications, invited speaker at 5 international conferences.
02/2013 – 04/2013	**Visiting Scientist**, **University of Utah, Salt Lake City**, Utah, USA in the group of Prof. V. Vardeny. **Mission:** development of a new ultrafast transient absorption setup in the IR spectral region. **Output:** Established collaboration.
08/2010 – 04/2011	**Visiting PhD Student**, **Oxford University**, Oxford, UK with Dr. Henry Snaith. **Mission:** fabrication and optoelectronic characterization of hybrid solar cells

Output: ongoing collaboration; 3 publications and 2 patents.

RESEARCH ACHIEVEMENTS AND PEER RECOGNITION

164 Scientific Publications, most cited publications:
- Science 342 (6156) 341, 2013
- Nature Communications 5, 3586, 2014
- Nature Communications 8,15684, 2017
- Nature Reviews Materials 4, 4 – 221, 2019
- Nano Letters 14(6), 3247, 2014
- Nature Materials 12(1), 29, 2013

For a more complete list, please see:
https://scholar.google.com/citations?user=R1_uLQsAAAAJ&hl=en

Selected recent research achievements - since 2021 - (I conceived the idea and lead the research as corresponding author).

1. Zanetta, A.; Vishal, B.; Faini, F.; Pica, G.; Marras, S.; Yıldırım, B. K.; Babics, M.; Ugur, E.; Aydin, E.; De Wolf, S.; De Bastiani, M.; *Grancini, G. "Controlled Growth of the Inorganic Backbone in Low-Dimensional Perovskites for Efficient, Stable, Semi-Transparent Wide Bandgap Perovskite Solar Cells" 2023/7/12 *Research Square Platform LLC – available online* https://doi.org/10.21203/rs.3.rs-2985134/v1.
2. A. Zanetta & **G. Grancini**, Patent n. 102022000025854 (December 2022), Title "Process for inducing crystal orientation in low dimensional perovskites".
3. **G. Grancini**, Patent n. 102021000031412 (December 2021), Title: "Composite Material for solar cell".
4. Pietropaolo, A.; Mattoni, A.; Pica, G.; Fortino, M.; Schifino, G.; ***Grancini, G.** "Rationalizing the design and implementation of chiral hybrid perovskites" *Chem* **8**, 1–23 (2022); IF= 25.8.
5. Degani, M.; An, Q.; Albaladejo-Siguan, M.; Hofstetter, Y.J.; Cho, C.; Paulus, F.; ***Grancini, G.**; Vaynzof, Y. "23.7% Efficient inverted perovskite solar cells by dual interfacial modification" *Sci. Adv.* **7**, 1-10 (2021) IF=14.1.
6. Cacovich, S.; Vidon, G.; Degani, M.; Legrand, M.; Gouda, L.; Puel, J-B.; Vaynzof, Y.; Guillemoles, J-F.; Ory, D.; ***Grancini, G.** "Imaging and quantifying non-radiative losses at 23% efficient inverted perovskite solar cells interfaces" *Nat. Commun.* **13**, 1–9 (2022) IF= 16.6.
7. Zanetta, A.; Andaji-Garmaroudi, Z.; Pirota, V.; Pica, G.; Utama Kosasih, F.; Gouda, L.; Frohna, K.; Ducati,C.; Doria, F.; Stranks, S. D.; * **Grancini, G.** "Manipulating Color Emission in 2D Hybrid Perovskites by Fine Tuning Halide Segregation: A Transparent Green Emitter" *Adv. Mater*. **34**(1), 2105942 (2021) IF= 32.
8. Larini, V.; Ding, C.; Faini, F.; Pica, G.; Bruni, G.; Pancini, L.; Cavalli, S.; Manzi, M.; Degani, M.; Pallotta, R.; De Bastiani, M.; Ma, C.-Q.; ***Grancini, G.** "Sustainable and Circular Management of Perovskite Solar Cells via Green Recycling of Electron Transport Layer-Coated Transparent Conductive Oxide" *Adv. Funct. Mater.* https://doi.org/10.1002/adfm.202306040 (2023) IF=19.9.
9. M. De Bastiani, V. Larini, R. Montecucco, **G. Grancini*** "The levelized cost of electricity from perovskite photovoltaics" *Energy Environ. Sci.***16**, 421-429 (2023) IF=32.5.
10. R. Montecucco, G. Pica, V. Romano, F. De Boni, S. Cavalli, G. Bruni, E. Quadrivi, M. De Bastiani, M. Prato, R. Po, **G. Grancini*** "The Stabilization of CsPbI3−xBrx Phase by Lowering Annealing Temperature for Efficient All-Inorganic Perovskite Solar Cells" *Sol. RRL* **7**, 1–10 (2023), IF=9.1.

RESEARCH GRANTS

Project Leadership in individual projects as well as collaborative ones with industries
I have been Principal Investigator of 10 projects (since 2019) funded by H2020 ERCEA (ERC StGrant 2018 HYNANO, ERC POC 2022 Spike), Italian Ministry of University (FARE Express 2019, PRIN Impact 2023), ENI company (4 PhD Fellowship 2020), EDISON (internal collaborative project 2020), Cariplo

Foundation (Economia Circolare 2021 FLHYPER), Lombardy Region (Infrastructure DGR 4473/2021, Highlight 2020), MITE (GOPV, 2023), CRUI- Bilateral UK.Italy project (Gofor IT, 2019).

Here below a list of the ongoing projects.

Project Title	*Funding source*	*Amount*	*Period*
From computational design to material implementation:imparting chirality in luminescent hybrid perovskites (IMPACT)	MUR PNRR - "Fondo per il Programma Nazionale di Ricerca e Progetti di Rilevante Interesse Nazionale (**PRIN**)"	63.281 €	5/11/2023 - 4/11/2025
Materiali di nuova GenerazIOne Per celle fotoVoltaiche tandem (GoPV)	**MITE** Piano triennale 2019-2021 della Ricerca di sistema elettrico nazionale.	515.037 €	21/07/2023 - 20/07/2026
2D/3D Perovskite Heterojunction Solar Cells: Pairing Performance with Stability (HERO)	Competitive Research Grants (**CRG**) Program CRG11 2022, KAUST	81.600 $	1/04/2023 - 31/03/2026
Green Flexible Hybrid Perovskite Solar Module For The Market: From Smart Lead Manipulation To Recycling (FLHYPER)	Circular Economy for a sustainable future – 2020 **Fondazione Cariplo**	200. 000 €	01/01/2021 - 31/12/2024
Engineering Water Repellent Coatings by Functional Nano-Sponges: a Springboard to Stable Perovskite Devices (SPIKE)	**ERC**-2022-Proof of Concept (POC) Horizon Europe	150.000€	01/01/2023 - 30/06/2024
Exploring Photoferroelectricity in halide peRovskitES for optoelectronicS (EXPRESS)	**MUR** Framework Per L'attrazione E Il Rafforzamento Delle Eccellenze Per La Ricerca In Italia (FARE) 2018	299.816 €	22/06/2020 - 22/12/2025
Hybrid NANOstructured multifunctional interfaces for stable, efficient and ecofriendly photovoltaic devices (HY-NANO)	H2020 ERCEA **ERC** Starting Grant 2018	1.5M€	01/07/2019 - 30/06/2024

SELECTED PRIZES AND AWARDS

- The Second Nano Materials Science Award by Nanomaterials Science (2023)
- Rosa Camuna Award for Research 2023, Lombardy Region
- Special Honour from Italian Republic President Mattarella for Scientific Merits as "Cavaliere della Repubblica" (2021)
- Italian Abilitation for Full Professor obtained both in Chemistry and in Physics
- Journal of Materials Chemistry Lectureship from Royal Society of Chemistry (2020)
- Highly Cited Scientist for the last 5 years in a row since 2019 (ranking in the top 1% by citations for field and year) (cross field) – Clarivate Analytics
- USERN Laureate in Physical Science 2019, Budapest (2019).
- Swiss Physical Society Award 2018 in Applied Physics (2018)
- IUPAP Young Scientist Prize in Optics 2017 for "deep knowledge on photophysical properties and ultrafast light-induced dynamical processes" (2017)

MEMBERSHIPS

- Elected Member of the "Direttivo" of the Gruppo2003, May 2024
- Among the 10 Young Leaders selected by UK Embassy in Italy (2024-2025) for the UK-Italy bilateral program
- Member of "top 1% highly cited scientists" from Clarivative – mostly cited in the world (since 2019)

- Invited Fellow of the Royal Society of Chemistry (2023)
- Member Elected of "Accademia XL", one of the ancient academies of top italian scientists (2022)
- Invited Member of "Gruppo 2003 per la ricerca scientifica", made of the top1% highly cited scientist in Italy (2020)
- Vice-Chair Selection Committee Young Academy of Europe (2020-2021)
- Italian Ambassador USERN Universal Scientific Education and Research Network (since 2020)
- Member of "100 donne nella scienza contro gli stereotipi" Fondazione Bracco, Milano, selecting the most influential women scientists in Italy (since 2020).
- Member of the European consortium of research institutes working on perovskites (since 2019)
- Member of Board of the Young Academy of Europe (2019-2021)
- 2010-2012, 2015, 2017-2023 Member of the Materials Research Society (MRS)

SELECTED PLENARY (8 since 2020) and INVITED TALKS (32 since 2020)

In my scientific research community, there are world-scale conferences which are the references for the community such as the Material Research Society (MRS) meetings, the international conference on perovskite solar cells and optoelectronics and the series of conferences from NanoGe community.

Since 2020 I have been invited to deliver 10 plenary and 32 invited talks. Here a selection:
- Invited Talk at WIRE, SPIE, Strasbourg (2024)
- Invited Talk at MATSUS 2024, Barcelona (2024)
- Pleanary MRS Session, Featured Invited Talk at MRS/The Kavli Foundation Frontiers of Materials "Hybrid Perovskite Solar Cells—A Game Changer for Near-Future Photovoltaics", Boston, (2023)
- Two Invited Talks at EN05 and EN06 symposia, MRS Fall 2023 Boston (2023)
- Invited Talk at CMD30 FisMat 2023, Joint Conference of the Italian and European Community of Condensed Matter Physics, Milan (2023)
- Plenary Talk at The Second Nano Materials Science Award by Nanomaterials Science (2023)
- Invited Talk at the International Conference PSCO 23, Oxford (2023)
- Two Invited Talks at MRS Spring, online (2023)
- Invited Talk at MRS Fall 2022, online (2022)
- Invited Talk international conference nanoGe Spring Meeting 2022, Online (2022)
- Plenary Talk al 2D-HAPES2021, online (2021)
- Plenary Talk at 2021 Light Management in New Photovoltaic Materials (LMPV) at AMOLF (2021)
- Plenary Talk RSC Desktop Seminar Lectureship Series with Journal of Materials Chemistry A, B & C as winner of the Journal Material Chemistry Lectureship 2020 award (2021), online.
- Plenary Lecture at Centre for Innovation on New Energies, University of Campinas, online (2020).
- Plenary Lecture: USERN Congress and USERN Prize Awarding Festival organized by Universal Scientific Education and Research Network (USERN), online (2020)
- Invited Talk at the international conference MRS Fall, online (2021)
- Invited Talk at ENI Company, online (2021)
- Invited Talk at MRS Spring Meeting 2021, Symposium EN06, online (2021)
- Invited Talk at XIX Brazil MRS, Symposium C, online (2021)
- Invited Talk at NanoGe Fall Meeting 2020, Symposium: PeroPerFun20, online (2020).
- Invited Talk at Contemporary Stability Challenges in hybrid Perovskite Solar Cells, online (2020)
- Invited Talk at Women in Renewable Energy (WiRE) conference, online (2020)
- Invited Talk at Virtual Perovskite conference VIPERCON online (2020).
- Invited Talk at International Conference on Perovskite Thin Film Photovoltaics and Perovskite Photonics and Optoelectronics (NIPHO20), nanoGe Perovskite Conferences, Sevilla (Spain) (2020)

CONFERENCE ORGANIZATION

I actively take part in the organization of international symposia within the MRS and nanoGe conferences, such as the PEREMER21, NIPHO 22 (organized in Pavia) and NIPHO 24 (which will take place in Sardinia); the E-MRS Symposium O (Halide Perovskites for photonic applications: stability and durability issues); the MRS Fall 2021 symposia. I am in the scientific panel of SPIE Optics+Photonics International Conference 2024 (and I was part of the SPIE Organic Photonics + Electronics in 2022 and in 2020).

ADDITIONAL INFORMATION

- **Promotion of Research and Education:**

Since 2019, I serve as the Italian Ambassador for the Universal Scientific Education and Research Network (USERN), a worldwide network of scientists dedicated to promoting ethical and professional scientific research and education (https://en.wikipedia.org/wiki/USERN).
More recently, since 2024, I have been invited to be one of the 10 Young Leaders (defined as the top class in the field) from the UK Embassy in Italy for the new Italy-UK Programme.
I have been Board member of the Young Academy of Europe (YAE) from 2019 to 2022.
I delivered a TEDEX talk at TEDEX Pavia "Solare Innovativo e Materiali Strategici: verso la Sfida Energetica Globale", online 13 May 2021.
I have been supervisor of Senior researchers (2), Post-Doc Researchers (9), PhD Students (24), 2 Specialized Technician, Research Fellows (2) and master's degree students (18) since I have been appointed team leader.
Responsible for Teaching to Master Class in Chemistry at the University of Pavia on courses on: Spectroscopy for solid state, New Materials and Processing for new generation photovoltaics, Advanced Materials for innovative Devices.
I am actively promoting my research field and the challenges of developing new energy sources to sustain the energy independence (as set by European goals) through conferences and meeting with Italian and European stakeholders (i.e. ENI) engaging the general public and politicians.

- **Promotion of Women in STEM**

Since 2019 I am active in several initiative as role model promoting young women scientists and students. I have been listed in the "100 women in STEM agains stereotypes" funded by Fondazione Bracco since 2020 and I take part of the Women in Renewable Energy network (WIRE conferences). In 2021, I have been invited as Panelist of 6th International Day of Women & Girls in Science Assembly, organized by the Royal Academy of Science International Trust (RASIT), and ONU Permanent Missions, United Nations Headquarters, New York. (virtual), 11/02/2021.

- **Editorial Activities**

Editor in Chief International Journal of Photoenergy Hindawi (2020-2023); Associate Editor Materials Today Energy ELSEVIER (since 2020); Advisory Board Editor of Chem, Cell Press (2020-2023); Advisory Board Editor of JACS Au (since 2020); Editorial Board Member J. Phys. Mater (since 2020); Advisory Board Editor of ACS Energy Letters since 2023.