

# Emanuele Smecca

## List of Publications by Year in descending order

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57  
papers

1,707  
citations

304368

22  
h-index

288905

40  
g-index

60  
all docs

60  
docs citations

60  
times ranked

2973  
citing authors

#	ARTICLE	IF	CITATIONS
1	Blackâ€Yellow Bandgap Tradeâ€Off During Thermal Stability Tests in Lowâ€Temperature Euâ€Doped CsPbI <sub>3</sub> . Solar Rrl, 2022, 6, .	3.1	8
2	Outâ€ofâ€Glovebox Integration of Recyclable Europiumâ€Doped CsPbI <sub>3</sub> in Tripleâ€Mesoscopic Carbonâ€Based Solar Cells Exceeding 9% Efficiency. Solar Rrl, 2022, 6, .	3.1	9
3	Two-step MAPbI <sub>3</sub> deposition by low-vacuum proximity-space-effusion for high-efficiency inverted semitransparent perovskite solar cells. Journal of Materials Chemistry A, 2021, 9, 16456-16469.	5.2	25
4	CsPbBr <sub>3</sub> , MAPbBr <sub>3</sub> , and FAPbBr <sub>3</sub> Bromide Perovskite Single Crystals: Interband Critical Points under Dry N <sub>2</sub> and Optical Degradation under Humid Air. Journal of Physical Chemistry C, 2021, 125, 4938-4945.	1.5	26
5	Optical behaviour of Î³-black CsPbI <sub>3</sub> phases formed by quenching from 80 Â°C and 325 Â°C. JPhys Materials, 2021, 4, 034011.	1.8	6
6	Formation of CsPbI <sub>3</sub> Î³â€Phase at 80â€%â€C by Europiumâ€Assisted Snowplow Effect. Advanced Energy and Sustainability Research, 2021, 2, 2100091.	2.8	8
7	Exploring the Structural Competition between the Black and the Yellow Phase of CsPbI <sub>3</sub> . Nanomaterials, 2021, 11, 1282.	1.9	12
8	MAPbI <sub>3</sub> Deposition by LV-PSE on TiO <sub>2</sub> for Photovoltaic Application. Frontiers in Electronics, 2021, 2, .	2.0	1
9	Ni/4H-SiC interaction and silicide formation under excimer laser annealing for ohmic contact. Materialia, 2020, 9, 100528.	1.3	12
10	Improved Electrical and Structural Stability in HTL-Free Perovskite Solar Cells by Vacuum Curing Treatment. Energies, 2020, 13, 3953.	1.6	7
11	Temperature-Dependent Optical Band Gap in CsPbBr <sub>3</sub> , MAPbBr <sub>3</sub> , and FAPbBr <sub>3</sub> Single Crystals. Journal of Physical Chemistry Letters, 2020, 11, 2490-2496.	2.1	173
12	Local Order and Rotational Dynamics in Mixed A-Cation Lead Iodide Perovskites. Journal of Physical Chemistry Letters, 2020, 11, 1068-1074.	2.1	31
13	Full Efficiency Recovery in Hole-Transporting Layer-Free Perovskite Solar Cells With Free-Standing Dry-Carbon Top-Contacts. Frontiers in Chemistry, 2020, 8, 200.	1.8	8
14	Nanostructured TiO <sub>2</sub> Grown by Low-Temperature Reactive Sputtering for Planar Perovskite Solar Cells. ACS Applied Energy Materials, 2019, 2, 6218-6229.	2.5	27
15	New Synthetic Route for the Growth of Î±-FeOOH/NH <sub>2</sub> -Mil-101 Films on Copper Foil for High Surface Area Electrodes. ACS Omega, 2019, 4, 18495-18501.	1.6	8
16	Bimodal Porosity and Stability of a TiO <sub>2</sub> Gig-Lox Sponge Infiltrated with Methyl-Ammonium Lead Iodide Perovskite. Nanomaterials, 2019, 9, 1300.	1.9	7
17	Pb clustering and PbI <sub>2</sub> nanofragmentation during methylammonium lead iodide perovskite degradation. Nature Communications, 2019, 10, 2196.	5.8	116
18	Porous Gig-Lox TiO <sub>2</sub> Doped with N <sub>2</sub> at Room Temperature for P-Type Response to Ethanol. Chemosensors, 2019, 7, 12.	1.8	4

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19	Properties of Al <sub>2</sub> O <sub>3</sub> thin films deposited on 4H-SiC by reactive ion sputtering. Materials Science in Semiconductor Processing, 2019, 93, 290-294.	1.9	10
20	Morphological and electrical properties of Nickel based Ohmic contacts formed by laser annealing process on n-type 4H-SiC. Materials Science in Semiconductor Processing, 2019, 97, 62-66.	1.9	25
21	Nitrogen doped spongy TiO <sub>2</sub> layers for sensors application. Materials Science in Semiconductor Processing, 2019, 98, 44-48.	1.9	8
22	Nitrogen Soaking Promotes Lattice Recovery in Polycrystalline Hybrid Perovskites. Advanced Energy Materials, 2019, 9, 1803450.	10.2	46
23	Heterogeneous growth of continuous ZIF-8 films on low-temperature amorphous silicon. Applied Surface Science, 2019, 473, 182-189.	3.1	7
24	Simulation of the Growth Kinetics in Group IV Compound Semiconductors. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800597.	0.8	6
25	Innovative spongy TiO <sub>2</sub> layers for gas detection at low working temperature. Sensors and Actuators B: Chemical, 2018, 259, 658-667.	4.0	23
26	Stability and Degradation in Hybrid Perovskites: Is the Glass Half-Empty or Half-Full?. Journal of Physical Chemistry Letters, 2018, 9, 3000-3007.	2.1	102
27	Revealing a Discontinuity in the Degradation Behavior of CH <sub>3</sub> NH <sub>3</sub> Pb <sub>3</sub> during Thermal Operation. Journal of Physical Chemistry C, 2017, 121, 13577-13585.	1.5	37
28	First Evidence of CH <sub>3</sub> NH <sub>3</sub> Pb <sub>3</sub> Optical Constants Improvement in a N <sub>2</sub> Environment in the Range 40–80 °C. Journal of Physical Chemistry C, 2017, 121, 7703-7710.	1.5	49
29	Pervasive infiltration and multi-branch chemisorption of N-719 molecules into newly designed spongy TiO <sub>2</sub> layers deposited by gig-lox sputtering processes. Journal of Materials Chemistry A, 2017, 5, 25529-25538.	5.2	12
30	Performance of natural-dye-sensitized solar cells by ZnO nanorod and nanowall enhanced photoelectrodes. Beilstein Journal of Nanotechnology, 2017, 8, 287-295.	1.5	21
31	Influence of hydrofluoric acid treatment on electroless deposition of Au clusters. Beilstein Journal of Nanotechnology, 2017, 8, 183-189.	1.5	8
32	Controlled Al <sup>3+</sup> Incorporation in the ZnO Lattice at 188 °C by Soft Reactive Co-Sputtering for Transparent Conductive Oxides. Energies, 2016, 9, 433.	1.6	9
33	Multi-Scale-Porosity TiO <sub>2</sub> scaffolds grown by innovative sputtering methods for high throughput hybrid photovoltaics. Scientific Reports, 2016, 6, 39509.	1.6	34
34	Spontaneous bidirectional ordering of CH <sub>3</sub> NH <sub>3</sub> <sup>+</sup> in lead iodide perovskites at room temperature: The origins of the tetragonal phase. Scientific Reports, 2016, 6, 24443.	1.6	37
35	Stability of solution-processed MAPb <sub>3</sub> and FAPb <sub>3</sub> layers. Physical Chemistry Chemical Physics, 2016, 18, 13413-13422.	1.3	208
36	Structural and electronic transitions in $G_{eS_2}b_2$	1.1	33

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37	From $\text{PbI}_2$ to $\text{MAPbI}_3$ through Layered Intermediates. <i>Journal of Physical Chemistry C</i> , 2016, 120, 19768-19777.	1.5	26
38	Phase Transitions in Ge-Sb-Te Alloys Induced by Ion Irradiations. <i>MRS Advances</i> , 2016, 1, 2701-2709.	0.5	2
39	A Comparison Among Low Temperature Piezoelectric Flexible Sensors Based on Polysilicon TFTs for Advanced Tactile Sensing on Plastic. <i>Journal of Display Technology</i> , 2016, 12, 209-213.	1.3	12
40	Metal-Organic Chemical Vapor Deposition (MOCVD) Synthesis of Heteroepitaxial $\text{Pr}_{0.7}\text{Ca}_{0.3}\text{MnO}_3$ Films: Effects of Processing Conditions on Structural/Morphological and Functional Properties. <i>ChemistryOpen</i> , 2015, 4, 523-532.	0.9	10
41	Similar Structural Dynamics for the Degradation of $\text{CH}_3\text{NH}_3\text{PbI}_3$ in Air and in Vacuum. <i>ChemPhysChem</i> , 2015, 16, 3064-3071.	1.0	80
42	Atomistic origins of $\text{CH}_3\text{NH}_3\text{PbI}_3$ degradation to $\text{PbI}_2$ in vacuum. <i>Applied Physics Letters</i> , 2015, 106, .	1.5	158
43	Low-cost high-haze films based on ZnO nanorods for light scattering in thin c-Si solar cells. <i>Applied Physics Letters</i> , 2015, 106, .	1.5	21
44	Texture of $\text{MAPbI}_3$ Layers Assisted by Chloride on Flat $\text{TiO}_2$ Substrates. <i>Journal of Physical Chemistry C</i> , 2015, 119, 19808-19816.	1.5	36
45	AlN texturing and piezoelectricity on flexible substrates for sensor applications. <i>Applied Physics Letters</i> , 2015, 106, .	1.5	33
46	Low temperature sputtered $\text{TiO}_2$ nano sheaths on electrospun PES fibers as high porosity photoactive material. <i>RSC Advances</i> , 2015, 5, 73444-73450.	1.7	14
47	Spatially Confined Functionalization of Transparent NiO Thin Films with a Luminescent (1,10-Phenanthroline)tris(2-thenoyltrifluoroacetato)europium Monolayer. <i>European Journal of Inorganic Chemistry</i> , 2015, 2015, 1261-1268.	1.0	7
48	Low-temperature flexible piezoelectric AlN capacitor integrated on ultra-flexible poly-Si TFT for advanced tactile sensing. , 2014, , .		2
49	Tetra-anionic porphyrin loading onto ZnO nanoneedles: A hybrid covalent/non covalent approach. <i>Materials Chemistry and Physics</i> , 2014, 143, 977-982.	2.0	6
50	A strategy to stabilise the local structure of $\text{Ti}^{4+}$ and $\text{Zn}^{2+}$ species against aging in $\text{TiO}_2$ /aluminium-doped ZnO bi-layers for applications in hybrid solar cells. <i>Journal of Applied Physics</i> , 2014, 116, .	1.1	5
51	Piezoelectric domains in $\text{BiFeO}_3$ films grown via MOCVD: Structure/property relationship. <i>Surface and Coatings Technology</i> , 2013, 230, 168-173.	2.2	12
52	Spectroscopic and Theoretical Study of the Grafting Modes of Phosphonic Acids on ZnO Nanorods. <i>Journal of Physical Chemistry C</i> , 2013, 117, 5364-5372.	1.5	45
53	Improvement of the fatigue resistance of NiTi endodontic files by surface and bulk modifications. <i>International Endodontic Journal</i> , 2010, 43, 866-873.	2.3	37
54	Engineered Si(100) surfaces for the gas-phase anchoring of metal $\beta^2$ -diketonate complexes. <i>Inorganica Chimica Acta</i> , 2007, 360, 170-178.	1.2	19

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55	Metal/P-GaN Contacts on AlGaIn/GaN Heterostructures for Normally-Off HEMTs. Materials Science Forum, 0, 858, 1170-1173.	0.3	7
56	High Resolution Investigation of Stacking Fault Density by HRXRD and STEM. Materials Science Forum, 0, 963, 346-349.	0.3	5
57	Structural and Electrical Characterization of Ni-Based Ohmic Contacts on 4H-SiC Formed by Solid-State Laser Annealing. Materials Science Forum, 0, 1062, 417-421.	0.3	2