

Emanuele Smecca

List of Publications by Year in descending order

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57
papers

1,707
citations

304743

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289244

40
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60
all docs

60
docs citations

60
times ranked

2973
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Stability of solution-processed MAPbI ₃ and FAPbI ₃ layers. Physical Chemistry Chemical Physics, 2016, 18, 13413-13422. | 2.8 | 208 |
| 2 | Temperature-Dependent Optical Band Gap in CsPbBr ₃ , MAPbBr ₃ , and FAPbBr ₃ Single Crystals. Journal of Physical Chemistry Letters, 2020, 11, 2490-2496. | 4.6 | 173 |
| 3 | Atomistic origins of CH ₃ NH ₃ PbI ₃ degradation to PbI ₂ in vacuum. Applied Physics Letters, 2015, 106, . | 3.3 | 158 |
| 4 | Pb clustering and PbI ₂ nanofragmentation during methylammonium lead iodide perovskite degradation. Nature Communications, 2019, 10, 2196. | 12.8 | 116 |
| 5 | Stability and Degradation in Hybrid Perovskites: Is the Glass Half-Empty or Half-Full?. Journal of Physical Chemistry Letters, 2018, 9, 3000-3007. | 4.6 | 102 |
| 6 | Similar Structural Dynamics for the Degradation of CH ₃ NH ₃ PbI ₃ in Air and in Vacuum. ChemPhysChem, 2015, 16, 3064-3071. | 2.1 | 80 |
| 7 | First Evidence of CH ₃ NH ₃ PbI ₃ Optical Constants Improvement in a N ₂ Environment in the Range 40–80 °C. Journal of Physical Chemistry C, 2017, 121, 7703-7710. | 3.1 | 49 |
| 8 | Nitrogen Soaking Promotes Lattice Recovery in Polycrystalline Hybrid Perovskites. Advanced Energy Materials, 2019, 9, 1803450. | 19.5 | 46 |
| 9 | Spectroscopic and Theoretical Study of the Grafting Modes of Phosphonic Acids on ZnO Nanorods. Journal of Physical Chemistry C, 2013, 117, 5364-5372. | 3.1 | 45 |
| 10 | Improvement of the fatigue resistance of NiTi endodontic files by surface and bulk modifications. International Endodontic Journal, 2010, 43, 866-873. | 5.0 | 37 |
| 11 | Spontaneous bidirectional ordering of CH ₃ NH ₃ ⁺ in lead iodide perovskites at room temperature: The origins of the tetragonal phase. Scientific Reports, 2016, 6, 24443. | 3.3 | 37 |
| 12 | Revealing a Discontinuity in the Degradation Behavior of CH ₃ NH ₃ PbI ₃ during Thermal Operation. Journal of Physical Chemistry C, 2017, 121, 13577-13585. | 3.1 | 37 |
| 13 | Texture of MAPbI ₃ Layers Assisted by Chloride on Flat TiO ₂ Substrates. Journal of Physical Chemistry C, 2015, 119, 19808-19816. | 3.1 | 36 |
| 14 | Multi-Scale-Porosity TiO ₂ scaffolds grown by innovative sputtering methods for high throughput hybrid photovoltaics. Scientific Reports, 2016, 6, 39509. | 3.3 | 34 |
| 15 | AlN texturing and piezoelectricity on flexible substrates for sensor applications. Applied Physics Letters, 2015, 106. | 3.3 | 33 |
| 16 | Structural and electronic transitions in $G e_2 S b_2$ | 3.2 | 33 |
| 17 | Local Order and Rotational Dynamics in Mixed A-Cation Lead Iodide Perovskites. Journal of Physical Chemistry Letters, 2020, 11, 1068-1074. | 4.6 | 31 |
| 18 | Nanostructured TiO ₂ Grown by Low-Temperature Reactive Sputtering for Planar Perovskite Solar Cells. ACS Applied Energy Materials, 2019, 2, 6218-6229. | 5.1 | 27 |

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|----|---|------|-----------|
| 19 | From PbI_2 to MAPbI_3 through Layered Intermediates. <i>Journal of Physical Chemistry C</i> , 2016, 120, 19768-19777. | 3.1 | 26 |
| 20 | CsPbBr_3 , MAPbBr_3 , and FAPbBr_3 Bromide Perovskite Single Crystals: Interband Critical Points under Dry N_2 and Optical Degradation under Humid Air. <i>Journal of Physical Chemistry C</i> , 2021, 125, 4938-4945. | 3.1 | 26 |
| 21 | Morphological and electrical properties of Nickel based Ohmic contacts formed by laser annealing process on n-type 4H-SiC. <i>Materials Science in Semiconductor Processing</i> , 2019, 97, 62-66. | 4.0 | 25 |
| 22 | Two-step MAPbI_3 deposition by low-vacuum proximity-space-effusion for high-efficiency inverted semitransparent perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2021, 9, 16456-16469. | 10.3 | 25 |
| 23 | Innovative spongy TiO_2 layers for gas detection at low working temperature. <i>Sensors and Actuators B: Chemical</i> , 2018, 259, 658-667. | 7.8 | 23 |
| 24 | 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, . | 3.3 | 21 |
| 25 | Performance of natural-dye-sensitized solar cells by ZnO nanorod and nanowall enhanced photoelectrodes. <i>Beilstein Journal of Nanotechnology</i> , 2017, 8, 287-295. | 2.8 | 21 |
| 26 | Engineered Si(100) surfaces for the gas-phase anchoring of metal \hat{I}^2 -diketonate complexes. <i>Inorganica Chimica Acta</i> , 2007, 360, 170-178. | 2.4 | 19 |
| 27 | Low temperature sputtered TiO_2 nano sheaths on electrospun PES fibers as high porosity photoactive material. <i>RSC Advances</i> , 2015, 5, 73444-73450. | 3.6 | 14 |
| 28 | Piezoelectric domains in BiFeO_3 films grown via MOCVD: Structure/property relationship. <i>Surface and Coatings Technology</i> , 2013, 230, 168-173. | 4.8 | 12 |
| 29 | 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. | 1.2 | 12 |
| 30 | Pervasive infiltration and multi-branch chemisorption of N-719 molecules into newly designed spongy TiO_2 layers deposited by gig-lox sputtering processes. <i>Journal of Materials Chemistry A</i> , 2017, 5, 25529-25538. | 10.3 | 12 |
| 31 | Ni/4H-SiC interaction and silicide formation under excimer laser annealing for ohmic contact. <i>Materialia</i> , 2020, 9, 100528. | 2.7 | 12 |
| 32 | Exploring the Structural Competition between the Black and the Yellow Phase of CsPbI_3 . <i>Nanomaterials</i> , 2021, 11, 1282. | 4.1 | 12 |
| 33 | 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. | 1.9 | 10 |
| 34 | Properties of Al_2O_3 thin films deposited on 4H-SiC by reactive ion sputtering. <i>Materials Science in Semiconductor Processing</i> , 2019, 93, 290-294. | 4.0 | 10 |
| 35 | Controlled Al^{3+} Incorporation in the ZnO Lattice at 188 $\text{\AA}^\circ\text{C}$ by Soft Reactive Co-Sputtering for Transparent Conductive Oxides. <i>Energies</i> , 2016, 9, 433. | 3.1 | 9 |
| 36 | Out-of-Glovebox Integration of Recyclable Europium-Doped CsPbI_3 in Triple-Mesoscopic Carbon-Based Solar Cells Exceeding 9% Efficiency. <i>Solar Rrl</i> , 2022, 6, . | 5.8 | 9 |

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|----|---|-----|-----------|
| 37 | Influence of hydrofluoric acid treatment on electroless deposition of Au clusters. Beilstein Journal of Nanotechnology, 2017, 8, 183-189. | 2.8 | 8 |
| 38 | New Synthetic Route for the Growth of FeOOH/NH_2 -Mil-101 Films on Copper Foil for High Surface Area Electrodes. ACS Omega, 2019, 4, 18495-18501. | 3.5 | 8 |
| 39 | Nitrogen doped spongy TiO_2 layers for sensors application. Materials Science in Semiconductor Processing, 2019, 98, 44-48. | 4.0 | 8 |
| 40 | Full Efficiency Recovery in Hole-Transporting Layer-Free Perovskite Solar Cells With Free-Standing Dry-Carbon Top-Contacts. Frontiers in Chemistry, 2020, 8, 200. | 3.6 | 8 |
| 41 | Formation of CsPbI_3 Phase at 80°C by Europium-Assisted Snowplow Effect. Advanced Energy and Sustainability Research, 2021, 2, 2100091. | 5.8 | 8 |
| 42 | Black-Yellow Bandgap Trade-Off During Thermal Stability Tests in Low-Temperature Eu-Doped CsPbI_3 . Solar Rrl, 2022, 6, . | 5.8 | 8 |
| 43 | Spatially Confined Functionalization of Transparent NiO Thin Films with a Luminescent (1,10-Phenanthroline)tris(2-thenoyltrifluoroacetato)europium Monolayer. European Journal of Inorganic Chemistry, 2015, 2015, 1261-1268. | 2.0 | 7 |
| 44 | Metal/P-GaN Contacts on AlGaN/GaN Heterostructures for Normally-Off HEMTs. Materials Science Forum, 0, 858, 1170-1173. | 0.3 | 7 |
| 45 | Bimodal Porosity and Stability of a TiO_2 Gig-Lox Sponge Infiltrated with Methyl-Ammonium Lead Iodide Perovskite. Nanomaterials, 2019, 9, 1300. | 4.1 | 7 |
| 46 | Heterogeneous growth of continuous ZIF-8 films on low-temperature amorphous silicon. Applied Surface Science, 2019, 473, 182-189. | 6.1 | 7 |
| 47 | Improved Electrical and Structural Stability in HTL-Free Perovskite Solar Cells by Vacuum Curing Treatment. Energies, 2020, 13, 3953. | 3.1 | 7 |
| 48 | Tetra-anionic porphyrin loading onto ZnO nanoneedles: A hybrid covalent/non covalent approach. Materials Chemistry and Physics, 2014, 143, 977-982. | 4.0 | 6 |
| 49 | Simulation of the Growth Kinetics in Group IV Compound Semiconductors. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800597. | 1.8 | 6 |
| 50 | Optical behaviour of β -black CsPbI_3 phases formed by quenching from 80°C and 325°C . JPhys Materials, 2021, 4, 034011. | 4.2 | 6 |
| 51 | A strategy to stabilise the local structure of Ti^{4+} and Zn^{2+} species against aging in TiO_2 /aluminium-doped ZnO bi-layers for applications in hybrid solar cells. Journal of Applied Physics, 2014, 116, . | 2.5 | 5 |
| 52 | High Resolution Investigation of Stacking Fault Density by HRXRD and STEM. Materials Science Forum, 0, 963, 346-349. | 0.3 | 5 |
| 53 | Porous Gig-Lox TiO_2 Doped with N_2 at Room Temperature for P-Type Response to Ethanol. Chemosensors, 2019, 7, 12. | 3.6 | 4 |
| 54 | Low-temperature flexible piezoelectric AlN capacitor integrated on ultra-flexible poly-Si TFT for advanced tactile sensing. , 2014, , . | | 2 |

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|----|---|-----|-----------|
| 55 | Phase Transitions in Ge-Sb-Te Alloys Induced by Ion Irradiations. MRS Advances, 2016, 1, 2701-2709. | 0.9 | 2 |
| 56 | 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 |
| 57 | MAPbI ₃ Deposition by LV-PSE on TiO ₂ for Photovoltaic Application. Frontiers in Electronics, 2021, 2, . | 3.2 | 1 |