

# Johann Toudert

## List of Publications by Year in descending order

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49  
papers

1,310  
citations

304743

22  
h-index

361022

35  
g-index

49  
all docs

49  
docs citations

49  
times ranked

2081  
citing authors

#	ARTICLE	IF	CITATIONS
1	Exploring the Optical Potential of Nano-Bismuth: Tunable Surface Plasmon Resonances in the Near Ultraviolet-to-Near Infrared Range. <i>Journal of Physical Chemistry C</i> , 2012, 116, 20530-20539.	3.1	182
2	Interband transitions in semi-metals, semiconductors, and topological insulators: a new driving force for plasmonics and nanophotonics [Invited]. <i>Optical Materials Express</i> , 2017, 7, 2299.	3.0	74
3	Circumventing UV Light Induced Nanomorphology Disorder to Achieve Long Lifetime PTB7 $\alpha$ :PCBM Based Solar Cells. <i>Advanced Energy Materials</i> , 2017, 7, 1701201.	19.5	67
4	Optical management for efficiency enhancement in hybrid organic-inorganic lead halide perovskite solar cells. <i>Science and Technology of Advanced Materials</i> , 2018, 19, 411-424.	6.1	62
5	Unveiling the Far Infrared-to-Ultraviolet Optical Properties of Bismuth for Applications in Plasmonics and Nanophotonics. <i>Journal of Physical Chemistry C</i> , 2017, 121, 3511-3521.	3.1	61
6	Advanced optical effective medium modeling for a single layer of polydisperse ellipsoidal nanoparticles embedded in a homogeneous dielectric medium: Surface plasmon resonances. <i>Physical Review B</i> , 2012, 86, .	3.2	51
7	Nanobismuth: Fabrication, Optical, and Plasmonic Properties – Emerging Applications. <i>Journal of Nanotechnology</i> , 2018, 2018, 1-23.	3.4	48
8	Light Harvesting at Oblique Incidence Decoupled from Transmission in Organic Solar Cells Exhibiting 9.8% Efficiency and 50% Visible Light Transparency. <i>Advanced Energy Materials</i> , 2020, 10, 1904196.	19.5	46
9	Quantitative modelling of the surface plasmon resonances of metal nanoclusters sandwiched between dielectric layers: the influence of nanocluster size, shape and organization. <i>Nanotechnology</i> , 2008, 19, 125709.	2.6	45
10	Natural Random Nanotexturing of the Au Interface for Light Backscattering Enhanced Performance in Perovskite Solar Cells. <i>ACS Photonics</i> , 2018, 5, 2243-2250.	6.6	39
11	When Eutectics Meet Plasmonics: Nanoplasmonic, Volumetric, Self-Organized, Silver-Based Eutectic. <i>Advanced Optical Materials</i> , 2015, 3, 381-389.	7.3	38
12	Selective Dichroic Patterning by Nanosecond Laser Treatment of Ag Nanostripes. <i>Advanced Materials</i> , 2011, 23, 848-853.	21.0	37
13	Preventing the Degradation of Ag Nanoparticles Using an Ultrathin $\alpha$ -Al <sub>2</sub> O <sub>3</sub> Layer as Protective Barrier. <i>Journal of Physical Chemistry C</i> , 2013, 117, 9431-9439.	3.1	36
14	Morphology and surface-plasmon resonance of silver nanoparticles sandwiched between Si <sub>3</sub> N <sub>4</sub> and BN layers. <i>Journal of Applied Physics</i> , 2005, 98, 114316.	2.5	32
15	Tailoring of the optical properties of Ag:Si <sub>3</sub> N <sub>4</sub> nanocermet by changes of the cluster morphology. <i>Applied Physics B: Lasers and Optics</i> , 2005, 80, 89-96.	2.2	30
16	Tunable Nanostructure and Photoluminescence of Columnar ZnO Films Grown by Plasma Deposition. <i>Journal of Physical Chemistry C</i> , 2010, 114, 20932-20940.	3.1	30
17	A Two-Resonance Tapping Cavity for an Optimal Light Trapping in Thin-Film Solar Cells. <i>Advanced Energy Materials</i> , 2017, 7, 1700356.	19.5	29
18	Ultraviolet-visible interband plasmonics with p-block elements. <i>Optical Materials Express</i> , 2016, 6, 2434.	3.0	28

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19	Monolithic CIGS Perovskite Tandem Cell for Optimal Light Harvesting without Current Matching. ACS Photonics, 2017, 4, 861-867.	6.6	27
20	High open-circuit voltage and short-circuit current flexible polymer solar cells using ternary blends and ultrathin Ag-based transparent electrodes. Journal of Materials Chemistry A, 2017, 5, 25476-25484.	10.3	25
21	Inverse Optical Cavity Design for Ultrabroadband Light Absorption Beyond the Conventional Limit in Low-Bandgap Nonfullerene Acceptor-Based Solar Cells. Advanced Energy Materials, 2019, 9, 1900463.	19.5	24
22	Mid-to-far infrared tunable perfect absorption by a sub- $\lambda/100$ nanofilm in a fractal phasor resonant cavity. Optics Express, 2018, 26, 34043.	3.4	24
23	Temperature and atmosphere tunability of the nanoplasmonic resonance of a volumetric eutectic-based Bi <sub>2</sub> O <sub>3</sub> -Ag metamaterial. Optics Express, 2015, 23, 19098.	3.4	23
24	Excitation transfer mechanism along the visible to the Near-IR in rhodamine J-heteroaggregates. Chemical Communications, 2010, 46, 4372.	4.1	22
25	Spectroscopic ellipsometry for active nano- and meta-materials. Nanotechnology Reviews, 2014, 3, .	5.8	21
26	Plasmonic Optical Interferences for Phase-Monitored Nanoscale Sensing in Low-Loss Three-Dimensional Metamaterials. ACS Photonics, 2015, 2, 1443-1450.	6.6	20
27	Polaritonic-to-Plasmonic Transition in Optically Resonant Bismuth Nanospheres for High-Contrast Switchable Ultraviolet Meta-Filters. IEEE Photonics Journal, 2016, 8, 1-11.	2.0	20
28	Tunable In-Plane Optical Anisotropy of Ag Nanoparticles Deposited by DC Sputtering onto SiO <sub>2</sub> Nanocolumnar Films. Plasmonics, 2010, 5, 241-250.	3.4	18
29	Linear and third-order nonlinear optical responses of multilayered Ag:Si <sub>3</sub> N <sub>4</sub> nanocomposites. Nanotechnology, 2009, 20, 475705.	2.6	17
30	Optical properties of bismuth nanostructures towards the ultrathin film regime. Optical Materials Express, 2019, 9, 2924.	3.0	17
31	Topological Materials for Functional Optoelectronic Devices. Advanced Functional Materials, 2022, 32, .	14.9	15
32	Relation between Fluorescence Quantum Yield and Open-Circuit Voltage in Complete Perovskite Solar Cells. Solar Rrl, 2020, 4, 1900554.	5.8	13
33	Plasmonic metamaterials for ultra-sensitive sensing: topological darkness. Rendiconti Lincei, 2015, 26, 175-182.	2.2	11
34	Ergodic Light Propagation in a Half-Cylinder Photonic Plate for Optimal Absorption in Perovskite Solar Cells. Advanced Optical Materials, 2019, 7, 1900018.	7.3	11
35	Self-Assembled Nanostructured Photonic-Plasmonic Metasurfaces for High-Resolution Optical Thermometry. Advanced Materials Interfaces, 2018, 5, 1800241.	3.7	9
36	Formamidinium Incorporation into Compact Lead Iodide for Low Band Gap Perovskite Solar Cells with Open-Circuit Voltage Approaching the Radiative Limit. ACS Applied Materials & Interfaces, 2019, 11, 9083-9092.	8.0	9

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37	Active analog tuning of the phase of light in the visible regime by bismuth-based metamaterials. <i>Nanophotonics</i> , 2020, 9, 885-896.	6.0	9
38	Annealing Effect on the Structural and Optical Properties of Sputter-Grown Bismuth Titanium Oxide Thin Films. <i>Materials</i> , 2014, 7, 3427-3434.	2.9	7
39	Comments on "Surface plasmon resonance of metal nanoparticles sandwiched between dielectric layers: theoretical modeling". <i>Applied Optics</i> , 2010, 49, 3630.	2.1	5
40	Self-Assembled, 10 nm-Tailored, Near Infrared Plasmonic Metasurface Acting as Broadband Omnidirectional Polarizing Mirror. <i>Advanced Optical Materials</i> , 2020, 8, 2000321.	7.3	5
41	Enhanced photoluminescence of nanostructured Er <sup>3+</sup> -doped a-Si/a-Al <sub>2</sub> O <sub>3</sub> thin films prepared by PLD. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2008, 146, 141-145.	3.5	4
42	Spectrally Tailored Light-Matter Interaction in Lithography-Free Functional Nanomaterials. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2020, 217, 1900677.	1.8	4
43	Quantum nanostructures for plasmonics and high refractive index photonics. <i>JPhys Photonics</i> , 2021, 3, 011003.	4.6	4
44	Nanosecond Laser Switching of Phase-Change Random Metasurfaces with Tunable ON-State. <i>Advanced Optical Materials</i> , 2022, 10, 2101405.	7.3	4
45	Rare Earth-Ion/Nanosilicon Ultrathin Layer: A Versatile Nanohybrid Light-Emitting Building Block for Active Optical Metamaterials. <i>Journal of Physical Chemistry C</i> , 2015, 119, 11800-11808.	3.1	3
46	Conformal covering and optical response of pulsed laser deposited bidimensional Ag nanoparticle arrays. <i>Applied Surface Science</i> , 2019, 473, 442-448.	6.1	2
47	Light Recycling Using Perovskite Solar Cells in a Half-Cylinder Photonic Plate for an Energy Efficient Broadband Polarized Light Emission. <i>Advanced Photonics Research</i> , 2021, 2, 2100077.	3.6	2
48	Dichroic Optical Structures: Selective Dichroic Patterning by Nanosecond Laser Treatment of Ag Nanostripes ( <i>Adv. Mater.</i> 7/2011). <i>Advanced Materials</i> , 2011, 23, 800-800.	21.0	0
49	Bismuth-based gap-plasmon metasurfaces for visible photonics with volatile tuning potential. , 2021, , .		0