Gerardo HernÃ¡ndez-Sosa

List of Publications by Year
in descending order

123 papers	3,383 citations	147726 31 h-index	168321 53 g-index
125 all docs	125 docs citations	125 times ranked	5184 citing authors

#	Article	IF	Citations
1	Plasmonic Photosensitization of a Wide Band Gap Semiconductor: Converting Plasmons to Charge Carriers. Nano Letters, 2011, 11, 5548-5552.	4.5	385
2	Inkjet-Printed Triple Cation Perovskite Solar Cells. ACS Applied Energy Materials, 2018, 1, 1834-1839.	2.5	156
3	Inkjetâ€Printed Micrometerâ€Thick Perovskite Solar Cells with Large Columnar Grains. Advanced Energy Materials, 2020, 10, 1903184.	10.2	142
4	Multipass inkjet printed planar methylammonium lead iodide perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 19207-19213.	5.2	112
5	Colorâ€Selective Printed Organic Photodiodes for Filterless Multichannel Visible Light Communication. Advanced Materials, 2020, 32, e1908258.	11.1	91
6	Flexible Inkjet-Printed Triple Cation Perovskite X-ray Detectors. ACS Applied Materials & Interfaces, 2020, 12, 15774-15784.	4.0	86
7	Rheological and Drying Considerations for Uniformly Gravureâ€Printed Layers: Towards Largeâ€Area Flexible Organic Lightâ€Emitting Diodes. Advanced Functional Materials, 2013, 23, 3164-3171.	7.8	83
8	The Compromises of Printing Organic Electronics: A Case Study of Gravureâ€Printed Lightâ€Emitting Electrochemical Cells. Advanced Materials, 2014, 26, 3235-3240.	11.1	79
9	Perovskite Solar Cells with Allâ€Inkjetâ€Printed Absorber and Charge Transport Layers. Advanced Materials Technologies, 2021, 6, 2000271.	3.0	72
10	Sulfone-Based Deep Blue Thermally Activated Delayed Fluorescence Emitters: Solution-Processed Organic Light-Emitting Diodes with High Efficiency and Brightness. Chemistry of Materials, 2017, 29, 9154-9161.	3.2	69
11	Inkjet-printed perovskite distributed feedback lasers. Optics Express, 2018, 26, A144.	1.7	68
12	Epitaxy of Rodlike Organic Molecules on Sheet Silicatesâ€”A Growth Model Based on Experiments and Simulations. Journal of the American Chemical Society, 2011, 133, 3056-3062.	6.6	61
13	Gravure printed flexible small-molecule organic light emitting diodes. Organic Electronics, 2013, 14, 3493-3499.	1.4	57
14	Fully Printed Lightâ€Emitting Electrochemical Cells Utilizing Biocompatible Materials. Advanced Functional Materials, 2018, 28, 1705795.	7.8	56
15	Vacuumâ€Processed Polyanilineâ€“C₆₀ Organic Field Effect Transistors. Advanced Materials, 2008, 20, 3887-3892.	11.1	55
16	Fabrication of polymer solar cells from organic nanoparticle dispersions by doctor blading or ink-jet printing. Organic Electronics, 2016, 28, 118-122.	1.4	54
17	Investigation of Solution-Processed Ultrathin Electron Injection Layers for Organic Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2014, 6, 6616-6622.	4.0	53
18	Aerosolâ€Jet Printed Flexible Organic Photodiodes: Semiâ€Transparent, Color Neutral, and Highly Efficient. Advanced Electronic Materials, 2015, 1, 1500101.	2.6	50

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19	Inkjet-printed polymer-based electrochromic and electrofluorochromic dual-mode displays. Journal of Materials Chemistry C, 2019, 7, 7121-7127.	2.7	48
20	Organic photodiodes: printing, coating, benchmarks, and applications. Flexible and Printed Electronics, 2019, 4, 043001.	1.5	48
21	Poly(lactic-<i>co</i>-glycolic acid) (PLGA) as Ion-Conducting Polymer for Biodegradable Light-Emitting Electrochemical Cells. ACS Sustainable Chemistry and Engineering, 2016, 4, 7050-7055.	3.2	46
22	Ultrathin Fully Printed Lightâ€Emitting Electrochemical Cells with Arbitrary Designs on Biocompatible Substrates. Advanced Materials Technologies, 2019, 4, 1800641.	3.0	45
23	Aerosol jet printed top grids for organic optoelectronic devices. Organic Electronics, 2014, 15, 2135-2140.	1.4	43
24	Organicâ€"Organic Heteroepitaxy of Red-, Green-, and Blue-Emitting Nanofibers. ACS Nano, 2010, 4, 6244-6250.	7.3	42
25	Biodegradable Polycaprolactone as Ion Solvating Polymer for Solution-Processed Light-Emitting Electrochemical Cells. Scientific Reports, 2016, 6, 36643.	1.6	39
26	Degradation Mechanisms in Organic Light-Emitting Diodes with Polyethylenimine as a Solution-Processed Electron Injection Layer. ACS Applied Materials & Interfaces, 2017, 9, 2776-2785.	4.0	39
27	Fully Digitally Printed Image Sensor Based on Organic Photodiodes. Advanced Optical Materials, 2018, 6, 1701108.	3.6	39
28	Biodegradable inkjet-printed electrochromic display for sustainable short-lifecycle electronics. Journal of Materials Chemistry C, 2020, 8, 16716-16724.	2.7	37
29	Epitaxial growth of sexithiophene on mica surfaces. Physical Review B, 2011, 83, .	1.1	35
30	Color Tuning of Nanofibers by Periodic Organicâ€"Organic Hetero-Epitaxy. ACS Nano, 2012, 6, 4629-4638.	7.3	35
31	Non-Fullerene-Based Printed Organic Photodiodes with High Responsivity and Megahertz Detection Speed. ACS Applied Materials & Interfaces, 2018, 10, 42733-42739.	4.0	34
32	Design and Color Flexibility for Inkjet-Printed Perovskite Photovoltaics. ACS Applied Energy Materials, 2019, 2, 764-769.	2.5	32
33	A digitally printed optoelectronic nose for the selective trace detection of nitroaromatic explosive vapours using fluorescence quenching. Flexible and Printed Electronics, 2017, 2, 024001.	1.5	31
34	SnO₂ Nanowire-Based Aerosol Jet Printed Electronic Nose as Fire Detector. IEEE Sensors Journal, 2018, 18, 494-500.	2.4	31
35	Nanocomposite of nickel oxide nanoparticles and polyethylene oxide as printable hole transport layer for organic solar cells. Sustainable Energy and Fuels, 2019, 3, 1418-1426.	2.5	31
36	Highâ€Efficiency Panchromatic Hybrid Schottky Solar Cells. Advanced Materials, 2013, 25, 256-260.	11.1	29

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37	Surface Lattice Resonances for Enhanced and Directional Electroluminescence at High Current Densities. ACS Photonics, 2016, 3, 2225-2230.	3.2	29
38	Improved performance of perovskite light-emitting diodes with a NaCl doped PEDOT:PSS hole transport layer. Journal of Materials Chemistry C, 2021, 9, 4344-4350.	2.7	28
39	The Swissâ€Armyâ€Knife Selfâ€Assembled Monolayer: Improving Electron Injection, Stability, and Wettability of Metal Electrodes with a Oneâ€Minute Process. Advanced Functional Materials, 2016, 26, 3172-3178.	7.8	27
40	Photo-Cross-Linkable Polyfluoreneâ€“Triarylamine (PFâ€“PTAA) Copolymer Based on the [2 + 2] Cycloaddition Reaction and Its Use as Hole-Transport Layer in OLEDs. Macromolecules, 2016, 49, 2957-2961.	2.2	27
41	Comparative Study of Printed Multilayer OLED Fabrication through Slot Die Coating, Gravure and Inkjet Printing, and Their Combination. Colloids and Interfaces, 2019, 3, 32.	0.9	27
42	The role of the polymer solid electrolyte molecular weight in light-emitting electrochemical cells. Organic Electronics, 2013, 14, 2223-2227.	1.4	26
43	Small-molecule vacuum processed melamine-C60, organic field-effect transistors. Organic Electronics, 2009, 10, 408-415.	1.4	25
44	Comparison of biodegradable substrates for printed organic electronic devices. Cellulose, 2016, 23, 3809-3817.	2.4	25
45	Digital Aerosol Jet Printing for the Fabrication of Terahertz Metamaterials. Advanced Materials Technologies, 2018, 3, 1700236.	3.0	25
46	High Photoconductive Responsivity in Solutionâ€Processed Polycrystalline Organic Composite Films. Advanced Functional Materials, 2011, 21, 927-931.	7.8	24
47	One-step additive crosslinking of conjugated polyelectrolyte interlayers: improved lifetime and performance of solution-processed OLEDs. Journal of Materials Chemistry C, 2016, 4, 11150-11156.	2.7	24
48	Substrate-Independent Surface Energy Tuning via Siloxane Treatment for Printed Electronics. Langmuir, 2018, 34, 5964-5970.	1.6	24
49	Slot Die Coated and Flexo Printed Highly Efficient SMOLEDs. Advanced Materials Technologies, 2017, 2, 1600230.	3.0	23
50	Inkjet-Printed Photoluminescent Patterns of Aggregation-Induced-Emission Chromophores on Surface-Anchored Metalâ€“Organic Frameworks. ACS Applied Materials & Interfaces, 2018, 10, 25754-25762.	4.0	23
51	A Singleâ€Step Hot Embossing Process for Integration of Microlens Arrays in Biodegradable Substrates for Improved Light Extraction of Lightâ€Emitting Devices. Advanced Materials Technologies, 2021, 6, 1900933.	3.0	23
52	Anticounterfeiting Labels with Smartphoneâ€Readable Dynamic Luminescent Patterns Based on Tailored Persistent Lifetimes in Gd₂O₂S:Eu³⁺/Ti⁴⁺. Advanced Materials Technologies, 2021, 6, 2100047.	3.0	23
53	Printed facial skin electrodes as sensors of emotional affect. Flexible and Printed Electronics, 2018, 3, 045001.	1.5	22
54	Soft Electronic Platforms Combining Elastomeric Stretchability and Biodegradability. Advanced Sustainable Systems, 2022, 6, 2100035.	2.7	21

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55	Solution-Processed Bio-OLEDs with a Vitamin-Derived Riboflavin Tetrabutyrate Emission Layer. ACS Sustainable Chemistry and Engineering, 2017, 5, 5368-5372.	3.2	20
56	Semiconductor:Insulator Blends for Speed Enhancement in Organic Photodiodes. Advanced Electronic Materials, 2018, 4, 1700345.	2.6	20
57	Diketopyrrolopyrrole-Polymer Meets Thiolâ€“Ene Click Chemistry: A Cross-Linked Acceptor for Thermally Stable Near-Infrared Photodetectors. Chemistry of Materials, 2019, 31, 7657-7665.	3.2	20
58	Para-sexiphenyl-CdSe/ZnS nanocrystal hybrid light emitting diodes. Applied Physics Letters, 2009, 94, .	1.5	19
59	Lab-on-Chip, Surface-Enhanced Raman Analysis by Aerosol Jet Printing and Roll-to-Roll Hot Embossing. Sensors, 2017, 17, 2401.	2.1	19
60	Lighting with organophosphorus materials: solution-processed blue/cyan light-emitting devices based on phosphaphenalenes. Dalton Transactions, 2019, 48, 7503-7508.	1.6	19
61	Manifestation of Carrier Relaxation Through the Manifold of Localized States in PCDTBT:PC₆₀BM Bulk Heterojunction Material: The Role of PC₈₄BM Traps on the Carrier Transport. Advanced Materials, 2012, 24, 2273-2277.	11.1	18
62	Digitally Printed Dewetting Patterns for Selfâ€Organized Microelectronics. Advanced Materials, 2016, 28, 7708-7715.	11.1	18
63	Search for a wetting layer in thin film growth of para-hexaphenyl on KCl(001). Thin Solid Films, 2008, 516, 2939-2942.	0.8	17
64	Naphthalene Tetracarboxydiimide-Based n-Type Polymers with Removable Solubility via Thermally Cleavable Side Chains. ACS Applied Materials & Interfaces, 2016, 8, 4940-4945.	4.0	17
65	Ink Formulation for Printed Organic Electronics: Investigating Effects of Aggregation on Structure and Rheology of Functional Inks Based on Conjugated Polymers in Mixed Solvents. Advanced Materials Technologies, 2021, 6, 2000335.	3.0	17
66	Analytical Study of Solutionâ€Processed Tin Oxide as Electron Transport Layer in Printed Perovskite Solar Cells. Advanced Materials Technologies, 2021, 6, 2000282.	3.0	16
67	Electrical transport properties of hot wall epitaxially grownpara -sexiphenyl nano-needles. Physica Status Solidi (B): Basic Research, 2006, 243, 3329-3332.	0.7	15
68	Alternately deposited heterostructures of Î±-sexithiopheneâ€“para-hexaphenyl on muscovite mica(001) surfaces: crystallographic structure and morphology. Journal of Materials Chemistry, 2012, 22, 15316.	6.7	15
69	High-Performance Electron Injection Layers with a Wide Processing Window from an Amidoamine-Functionalized Polyfluorene. ACS Applied Materials & Interfaces, 2016, 8, 12959-12967.	4.0	15
70	Modification of para-sexiphenyl layer growth by UV induced polarity changes of polymeric substrates. Organic Electronics, 2009, 10, 326-332.	1.4	14
71	Electrical and optical properties of reduced graphene oxide thin film deposited onto polyethylene terephthalate by spin coating technique. Applied Optics, 2017, 56, 7774.	0.9	14
72	Simple light-emitting electrochemical cell using reduced graphene oxide and a ruthenium (II) complex. Applied Optics, 2017, 56, 6476.	0.9	14

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73	Phase-Separated Nanophotonic Structures by Inkjet Printing. ACS Nano, 2021, 15, 7305-7317.	7.3	14
74	Controlled Molecular Orientation of Inkjet Printed Semiconducting Polymer Fibers by Crystallization Templating. Chemistry of Materials, 2017, 29, 10150-10158.	3.2	13
75	Organophosphorus-B(C₆F₅)₃ adducts: towards new solid-state emitting materials. Dalton Transactions, 2019, 48, 12803-12807.	1.6	13
76	Processing Follows Function: Pushing the Formation of Self-Assembled Monolayers to High-Throughput Compatible Time Scales. ACS Applied Materials & Interfaces, 2014, 6, 20234-20241.	4.0	12
77	Emissive Polyelectrolytes As Interlayer for Color Tuning and Electron Injection in Solution-Processed Light-Emitting Devices. ACS Applied Materials & Interfaces, 2016, 8, 7320-7325.	4.0	12
78	Aerosolâ€Jetâ€Printed Donorâ€Blocking Layer for Organic Photodiodes. Advanced Electronic Materials, 2021, 7, 2000811.	2.6	11
79	Surface energy patterning for ink-independent process optimization of inkjet-printed electronics. Flexible and Printed Electronics, 2021, 6, 015002.	1.5	11
80	Growth and optical properties of Î±-sexithiopene doped para-sexiphenyl nanofibers. Applied Physics Letters, 2009, 95, 013306.	1.5	10
81	Electron injection and interfacial trap passivation in solution-processed organic light-emitting diodes using a polymer zwitterion interlayer. Organic Electronics, 2017, 50, 384-388.	1.4	10
82	Photo-Fries-based photosensitive polymeric interlayers for patterned organic devices. Applied Physics A: Materials Science and Processing, 2012, 107, 985-993.	1.1	9
83	Reliability of Aerosol Jet Printed Fluorescence Quenching Sensor Arrays for the Identification and Quantification of Explosive Vapors. ACS Omega, 2017, 2, 6500-6505.	1.6	9
84	Solubility Modulation of Polyfluorene Emitters by Thermally Induced (Retro)-Dielsâ€"Alder Cross-Linking of Cyclopentadienyl Substituents. Chemistry of Materials, 2018, 30, 4157-4167.	3.2	9
85	Modelling and simulation of gate leakage currents of solution-processed OTFT. Organic Electronics, 2014, 15, 829-834.	1.4	7
86	Adjustable passivation of SiO2 trap states in OFETs by an ultrathin CVD deposited polymer coating. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	1.1	7
87	Inkjet-Printed Tin Oxide Hole-Blocking Layers for Organic Photodiodes. ACS Applied Electronic Materials, 2021, 3, 4959-4966.	2.0	7
88	Correlation of Device Performance and Fermi Level Shift in the Emitting Layer of Organic Light-Emitting Diodes with Amine-Based Electron Injection Layers. ACS Applied Materials & Interfaces, 2018, 10, 8877-8884.	4.0	6
89	Printing PPEs: Fundamental Structureâ€"Property Relationships. ACS Macro Letters, 2014, 3, 788-790.	2.3	5
90	Deoxyribonucleic Acid as a Universal Electrolyte for Bioâ€Friendly Lightâ€Emitting Electrochemical Cells. Advanced Sustainable Systems, 2021, 5, 2000203.	2.7	5

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91	Two-photon absorption induced photoluminescence in para-sexiphenyl nano-needles. Chemical Physics Letters, 2007, 446, 83-86.	1.2	4
92	Discrimination of trace nitroaromatics using linear discriminant analysis on aerosol jet printed fluorescent sensor arrays. , 2017, , .		4
93	Multispectral electroluminescence enhancement of single-walled carbon nanotubes coupled to periodic nanodisk arrays. Optics Express, 2017, 25, 18092.	1.7	4
94	A Hybrid Optoelectronic Sensor Platform with an Integrated Solutionâ€Processed Organic Photodiode. Advanced Materials Technologies, 2021, 6, 2000172.	3.0	4
95	Green ink formulation for inkjet printed transparent electrodes in OLEDs on biodegradable substrates. Synthetic Metals, 2021, 282, 116930.	2.1	4
96	Fe onto GaN(0001) grown in a full MOVPE process. Journal of Crystal Growth, 2008, 310, 1772-1776.	0.7	3
97	Origin of the low-energy emission band in epitaxially grown <i>para</i>-sexiphenyl nanocrystallites. Journal of Chemical Physics, 2009, 130, 084901.	1.2	3
98	Extension of the spectral responsivity of the photocurrent in solution-processed small molecule composite via a charge transfer excitation. Applied Physics Letters, 2011, 99, 163306.	1.5	3
99	New Configuration of Solidâ€State Neutron Detector Made Possible with Solutionâ€Based Semiconductor Processing. Advanced Functional Materials, 2012, 22, 3279-3283.	7.8	3
100	Polarizationâ€Sensitive Photodetectors Based on Directionally Oriented Organic Bulkâ€Heterojunctions. Advanced Optical Materials, 2022, 10, 2102397.	3.6	3
101	Quantitative luminous efficiency determination for large-area light-emitting devices. Applied Physics A: Materials Science and Processing, 2010, 98, 337-344.	1.1	2
102	Stretchable inkjet-printed electronics on mechanically compliant island-bridge architectures covalently bonded to elastomeric substrates. Flexible and Printed Electronics, 2022, 7, 025007.	1.5	2
103	White fluorescent nano-fibers prepared by periodic organic hetero-epitaxy. Proceedings of SPIE, 2013, , .	0.8	1
104	Microfluidic surface-enhanced Raman analysis systems by aerosol jet printing: Towards low-cost integrated sensor systems. , 2017, , .		1
105	Photoluminescent graphene oxide porous particles in solution under environmental conditions produced by hydrothermal treatment. Materials Today Communications, 2019, 20, 100621.	0.9	1
106	Extraction of 2â€²-O-apiosyl-6â€²-O-crotonic acid-betanin from the ayrampo seed (Opuntia soehrensii) cuticle and its use as an emitting layer in an organic light-emitting diode. RSC Advances, 2020, 10, 36695-36703.	1.7	1
107	Blue-emission tuning of perovskite light-emitting diodes with a simple TPBi surface treatment. MRS Communications, 0, , 1.	0.8	1
108	Realization of Colors and Patterns for Inkjet-Printed Perovskite Solar Cells. , 2018, , .		1

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109	Progress on Perovskite Solar Cells with All-Inkjet-Printed Absorber and Extraction Layers. , 2020, , .		1
110	Para-sexiphenyl-CdSe Nanocrystals Hybrid Light Emitting Diodes with Optimized Layer Thickness and Interfaces. Materials Research Society Symposia Proceedings, 2009, 1154, 1.	0.1	0
111	Organicâ€"Organic Heteroepitaxyâ€"The Method of Choice to Tune Optical Emission of Organic Nano-fibers?. Springer Series in Materials Science, 2013, , 49-78.	0.4	0
112	Motionless system to measure relative angular emission intensity of decaying or modulated light emitting diodes. Review of Scientific Instruments, 2014, 85, 103103.	0.6	0
113	â€œEngineering and Life Herrenhausen Symposiumâ€•Special Issue. Advanced Biology, 2017, 1, e1700192.	3.0	0
114	A low-cost versatile fluorescence quenching detection system for liquid- and vapor-phase sensing. , 2017, , .		0
115	Scalable and low cost fabrication methods for wavelength tunable solution processed perovskite distributed feedback lasers. , 2017, , .		0
116	Inkjet Printed Perovskite Photovoltaics. , 2018, , .		0
117	InnovationLab Special Section in <i>Advanced Materials Technologies</i>. Advanced Materials Technologies, 2021, 6, 2001069.	3.0	0
118	InnovationLab: InnovationLab Special Section in <i>Advanced Materials Technologies</i> (Adv. Mater.) Tj ETQq0 0 0 rgBT /Overlock 10 T	3.0	0
119	Anisotropic optical behavior of an amorphous organic polymer locally aligned by inkjet-printing. Progress in Organic Coatings, 2021, 154, 106184.	1.9	0
120	Two-photon absorption induced photoluminescence and the ultrafast dynamics of para-sexiphenyl nano-needles. , 2008, , .		0
121	Spectroscopy of Defects in Epitaxially Grown Para-sexiphenyl Nanostructures. Springer Proceedings in Physics, 2009, , 121-125.	0.1	0
122	Para-Sexiphenyl Layers Grown On Light Sensitive Polymer Substrates. Springer Proceedings in Physics, 2009, , 23-27.	0.1	0
123	Polarizationâ€Sensitive Photodetectors Based on Directionally Oriented Organic Bulkâ€Heterojunctions (Advanced Optical Materials 7/2022). Advanced Optical Materials, 2022, 10, .	3.6	0