Gerardo HernÃ¡ndez-Sosa

List of Publications by Year
in descending order

123 papers	3,383 citations	147801 31 h-index	168389 53 g-index
125 all docs	125 docs citations	125 times ranked	5184 citing authors

#	Article	IF	Citations
1	Soft Electronic Platforms Combining Elastomeric Stretchability and Biodegradability. Advanced Sustainable Systems, 2022, 6, 2100035.	5.3	21
2	Polarizationâ€Sensitive Photodetectors Based on Directionally Oriented Organic Bulkâ€Heterojunctions. Advanced Optical Materials, 2022, 10, 2102397.	7.3	3
3	Polarizationâ€Sensitive Photodetectors Based on Directionally Oriented Organic Bulkâ€Heterojunctions (Advanced Optical Materials 7/2022). Advanced Optical Materials, 2022, 10, .	7.3	0
4	Stretchable inkjet-printed electronics on mechanically compliant island-bridge architectures covalently bonded to elastomeric substrates. Flexible and Printed Electronics, 2022, 7, 025007.	2.7	2
5	Deoxyribonucleic Acid as a Universal Electrolyte for Bioâ€Friendly Lightâ€Emitting Electrochemical Cells. Advanced Sustainable Systems, 2021, 5, 2000203.	5.3	5
6	A Hybrid Optoelectronic Sensor Platform with an Integrated Solutionâ€Processed Organic Photodiode. Advanced Materials Technologies, 2021, 6, 2000172.	5.8	4
7	Analytical Study of Solutionâ€Processed Tin Oxide as Electron Transport Layer in Printed Perovskite Solar Cells. Advanced Materials Technologies, 2021, 6, 2000282.	5.8	16
8	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.	5.8	23
9	Perovskite Solar Cells with Allâ€Inkjetâ€Printed Absorber and Charge Transport Layers. Advanced Materials Technologies, 2021, 6, 2000271.	5.8	72
10	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.	5.8	17
11	Aerosolâ€Jetâ€Printed Donorâ€Blocking Layer for Organic Photodiodes. Advanced Electronic Materials, 2021, 7, 2000811.	5.1	11
12	Surface energy patterning for ink-independent process optimization of inkjet-printed electronics. Flexible and Printed Electronics, 2021, 6, 015002.	2.7	11
13	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.	5.5	28
14	InnovationLab Special Section in Advanced Materials Technologies. Advanced Materials Technologies, 2021, 6, 2001069.	5.8	0
15	InnovationLab: InnovationLab Special Section in Advanced Materials Technologies (Adv. Mater.) Tj ETQq1 1 0.784314 rgBT /Ov	5.8	0
16	Phase-Separated Nanophotonic Structures by Inkjet Printing. ACS Nano, 2021, 15, 7305-7317.	14.6	14
17	Anticounterfeiting Labels with Smartphoneâ€Readable Dynamic Luminescent Patterns Based on Tailored Persistent Lifetimes in Gd₂O₂S:Eu³⁺/Ti⁴⁺. Advanced Materials Technologies, 2021, 6, 2100047.	5.8	23
18	Anisotropic optical behavior of an amorphous organic polymer locally aligned by inkjet-printing. Progress in Organic Coatings, 2021, 154, 106184.	3.9	0

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19	Inkjet-Printed Tin Oxide Hole-Blocking Layers for Organic Photodiodes. ACS Applied Electronic Materials, 2021, 3, 4959-4966.	4.3	7
20	Green ink formulation for inkjet printed transparent electrodes in OLEDs on biodegradable substrates. Synthetic Metals, 2021, 282, 116930.	3.9	4
21	Inkjetâ€Printed Micrometerâ€Thick Perovskite Solar Cells with Large Columnar Grains. Advanced Energy Materials, 2020, 10, 1903184.	19.5	142
22	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.	3.6	1
23	Biodegradable inkjet-printed electrochromic display for sustainable short-lifecycle electronics. Journal of Materials Chemistry C, 2020, 8, 16716-16724.	5.5	37
24	Flexible Inkjet-Printed Triple Cation Perovskite X-ray Detectors. ACS Applied Materials & Interfaces, 2020, 12, 15774-15784.	8.0	86
25	Colorâ€Selective Printed Organic Photodiodes for Filterless Multichannel Visible Light Communication. Advanced Materials, 2020, 32, e1908258.	21.0	91
26	Progress on Perovskite Solar Cells with All-Inkjet-Printed Absorber and Extraction Layers. , 2020, , .		1
27	Organophosphorus-B(C₆F₅)₃ adducts: towards new solid-state emitting materials. Dalton Transactions, 2019, 48, 12803-12807.	3.3	13
28	Diketopyrrolopyrrole-Polymer Meets Thiolâ€“Ene Click Chemistry: A Cross-Linked Acceptor for Thermally Stable Near-Infrared Photodetectors. Chemistry of Materials, 2019, 31, 7657-7665.	6.7	20
29	Photoluminescent graphene oxide porous particles in solution under environmental conditions produced by hydrothermal treatment. Materials Today Communications, 2019, 20, 100621.	1.9	1
30	Inkjet-printed polymer-based electrochromic and electrofluorochromic dual-mode displays. Journal of Materials Chemistry C, 2019, 7, 7121-7127.	5.5	48
31	Comparative Study of Printed Multilayer OLED Fabrication through Slot Die Coating, Gravure and Inkjet Printing, and Their Combination. Colloids and Interfaces, 2019, 3, 32.	2.1	27
32	Lighting with organophosphorus materials: solution-processed blue/cyan light-emitting devices based on phosphaphenalenes. Dalton Transactions, 2019, 48, 7503-7508.	3.3	19
33	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.	4.9	31
34	Organic photodiodes: printing, coating, benchmarks, and applications. Flexible and Printed Electronics, 2019, 4, 043001.	2.7	48
35	Ultrathin Fully Printed Lightâ€Emitting Electrochemical Cells with Arbitrary Designs on Biocompatible Substrates. Advanced Materials Technologies, 2019, 4, 1800641.	5.8	45
36	Design and Color Flexibility for Inkjet-Printed Perovskite Photovoltaics. ACS Applied Energy Materials, 2019, 2, 764-769.	5.1	32

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37	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.	8.0	6
38	Inkjet-Printed Triple Cation Perovskite Solar Cells. ACS Applied Energy Materials, 2018, 1, 1834-1839.	5.1	156
39	Fully Digitally Printed Image Sensor Based on Organic Photodiodes. Advanced Optical Materials, 2018, 6, 1701108.	7.3	39
40	Semiconductor:Insulator Blends for Speed Enhancement in Organic Photodiodes. Advanced Electronic Materials, 2018, 4, 1700345.	5.1	20
41	Fully Printed Lightâ€Emitting Electrochemical Cells Utilizing Biocompatible Materials. Advanced Functional Materials, 2018, 28, 1705795.	14.9	56
42	Substrate-Independent Surface Energy Tuning via Siloxane Treatment for Printed Electronics. Langmuir, 2018, 34, 5964-5970.	3.5	24
43	SnO₂ Nanowire-Based Aerosol Jet Printed Electronic Nose as Fire Detector. IEEE Sensors Journal, 2018, 18, 494-500.	4.7	31
44	Digital Aerosol Jet Printing for the Fabrication of Terahertz Metamaterials. Advanced Materials Technologies, 2018, 3, 1700236.	5.8	25
45	Non-Fullerene-Based Printed Organic Photodiodes with High Responsivity and Megahertz Detection Speed. ACS Applied Materials & Interfaces, 2018, 10, 42733-42739.	8.0	34
46	Inkjet Printed Perovskite Photovoltaics. , 2018, , .		0
47	Printed facial skin electrodes as sensors of emotional affect. Flexible and Printed Electronics, 2018, 3, 045001.	2.7	22
48	Inkjet-printed perovskite distributed feedback lasers. Optics Express, 2018, 26, A144.	3.4	68
49	Inkjet-Printed Photoluminescent Patterns of Aggregation-Induced-Emission Chromophores on Surface-Anchored Metalâ€“Organic Frameworks. ACS Applied Materials & Interfaces, 2018, 10, 25754-25762.	8.0	23
50	Solubility Modulation of Polyfluorene Emitters by Thermally Induced (Retro)-Dielsâ€“Alder Cross-Linking of Cyclopentadienyl Substituents. Chemistry of Materials, 2018, 30, 4157-4167.	6.7	9
51	Realization of Colors and Patterns for Inkjet-Printed Perovskite Solar Cells. , 2018, , .		1
52	A digitally printed optoelectronic nose for the selective trace detection of nitroaromatic explosive vapours using fluorescence quenching. Flexible and Printed Electronics, 2017, 2, 024001.	2.7	31
53	Solution-Processed Bio-OLEDs with a Vitamin-Derived Riboflavin Tetrabutyrate Emission Layer. ACS Sustainable Chemistry and Engineering, 2017, 5, 5368-5372.	6.7	20
54	Discrimination of trace nitroaromatics using linear discriminant analysis on aerosol jet printed fluorescent sensor arrays. , 2017, , .		4

#	Article	IF	Citations
55	Slot Die Coated and Flexo Printed Highly Efficient SMOLEDs. Advanced Materials Technologies, 2017, 2, 1600230.	5.8	23
56	Degradation Mechanisms in Organic Light-Emitting Diodes with Polyethylenimine as a Solution-Processed Electron Injection Layer. ACS Applied Materials & Interfaces, 2017, 9, 2776-2785.	8.0	39
57	Reliability of Aerosol Jet Printed Fluorescence Quenching Sensor Arrays for the Identification and Quantification of Explosive Vapors. ACS Omega, 2017, 2, 6500-6505.	3.5	9
58	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.	6.7	69
59	Electron injection and interfacial trap passivation in solution-processed organic light-emitting diodes using a polymer zwitterion interlayer. Organic Electronics, 2017, 50, 384-388.	2.6	10
60	Controlled Molecular Orientation of Inkjet Printed Semiconducting Polymer Fibers by Crystallization Templating. Chemistry of Materials, 2017, 29, 10150-10158.	6.7	13
61	â€œEngineering and Life Herrenhausen Symposiumâ€•Special Issue. Advanced Biology, 2017, 1, e1700192.	3.0	0
62	A low-cost versatile fluorescence quenching detection system for liquid- and vapor-phase sensing. , 2017, , .		0
63	Microfluidic surface-enhanced Raman analysis systems by aerosol jet printing: Towards low-cost integrated sensor systems. , 2017, , .		1
64	Electrical and optical properties of reduced graphene oxide thin film deposited onto polyethylene terephthalate by spin coating technique. Applied Optics, 2017, 56, 7774.	1.8	14
65	Multispectral electroluminescence enhancement of single-walled carbon nanotubes coupled to periodic nanodisk arrays. Optics Express, 2017, 25, 18092.	3.4	4
66	Simple light-emitting electrochemical cell using reduced graphene oxide and a ruthenium (II) complex. Applied Optics, 2017, 56, 6476.	1.8	14
67	Lab-on-Chip, Surface-Enhanced Raman Analysis by Aerosol Jet Printing and Roll-to-Roll Hot Embossing. Sensors, 2017, 17, 2401.	3.8	19
68	Scalable and low cost fabrication methods for wavelength tunable solution processed perovskite distributed feedback lasers. , 2017, , .		0
69	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.	14.9	27
70	Emissive Polyelectrolytes As Interlayer for Color Tuning and Electron Injection in Solution-Processed Light-Emitting Devices. ACS Applied Materials & Interfaces, 2016, 8, 7320-7325.	8.0	12
71	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.	4.8	27
72	Naphthalene Tetracarboxydiimide-Based n-Type Polymers with Removable Solubility via Thermally Cleavable Side Chains. ACS Applied Materials & Interfaces, 2016, 8, 4940-4945.	8.0	17

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73	High-Performance Electron Injection Layers with a Wide Processing Window from an Amidoamine-Functionalized Polyfluorene. ACS Applied Materials & Interfaces, 2016, 8, 12959-12967.	8.0	15
74	Digitally Printed Dewetting Patterns for Selfâ€Organized Microelectronics. Advanced Materials, 2016, 28, 7708-7715.	21.0	18
75	Poly(lactic-co-glycolic acid) (PLGA) as Ion-Conducting Polymer for Biodegradable Light-Emitting Electrochemical Cells. ACS Sustainable Chemistry and Engineering, 2016, 4, 7050-7055.	6.7	46
76	Comparison of biodegradable substrates for printed organic electronic devices. Cellulose, 2016, 23, 3809-3817.	4.9	25
77	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.	5.5	24
78	Surface Lattice Resonances for Enhanced and Directional Electroluminescence at High Current Densities. ACS Photonics, 2016, 3, 2225-2230.	6.6	29
79	Multipass inkjet printed planar methylammonium lead iodide perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 19207-19213.	10.3	112
80	Biodegradable Polycaprolactone as Ion Solvating Polymer for Solution-Processed Light-Emitting Electrochemical Cells. Scientific Reports, 2016, 6, 36643.	3.3	39
81	Fabrication of polymer solar cells from organic nanoparticle dispersions by doctor blading or ink-jet printing. Organic Electronics, 2016, 28, 118-122.	2.6	54
82	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.	2.3	7
83	Aerosolâ€Jet Printed Flexible Organic Photodiodes: Semiâ€Transparent, Color Neutral, and Highly Efficient. Advanced Electronic Materials, 2015, 1, 1500101.	5.1	50
84	Motionless system to measure relative angular emission intensity of decaying or modulated light emitting diodes. Review of Scientific Instruments, 2014, 85, 103103.	1.3	0
85	Processing Follows Function: Pushing the Formation of Self-Assembled Monolayers to High-Throughput Compatible Time Scales. ACS Applied Materials & Interfaces, 2014, 6, 20234-20241.	8.0	12
86	Aerosol jet printed top grids for organic optoelectronic devices. Organic Electronics, 2014, 15, 2135-2140.	2.6	43
87	Printing PPEs: Fundamental Structureâ€“Property Relationships. ACS Macro Letters, 2014, 3, 788-790.	4.8	5
88	Investigation of Solution-Processed Ultrathin Electron Injection Layers for Organic Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2014, 6, 6616-6622.	8.0	53
89	Modelling and simulation of gate leakage currents of solution-processed OTFT. Organic Electronics, 2014, 15, 829-834.	2.6	7
90	The Compromises of Printing Organic Electronics: A Case Study of Gravureâ€Printed Lightâ€Emitting Electrochemical Cells. Advanced Materials, 2014, 26, 3235-3240.	21.0	79

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91	Gravure printed flexible small-molecule organic light emitting diodes. Organic Electronics, 2013, 14, 3493-3499.	2.6	57
92	The role of the polymer solid electrolyte molecular weight in light-emitting electrochemical cells. Organic Electronics, 2013, 14, 2223-2227.	2.6	26
93	Organicâ€“Organic Heteroepitaxyâ€”The Method of Choice to Tune Optical Emission of Organic Nano-fibers?. Springer Series in Materials Science, 2013, , 49-78.	0.6	0
94	Rheological and Drying Considerations for Uniformly Gravureâ€Printed Layers: Towards Largeâ€Area Flexible Organic Lightâ€Emitting Diodes. Advanced Functional Materials, 2013, 23, 3164-3171.	14.9	83
95	Highâ€Efficiency Panchromatic Hybrid Schottky Solar Cells. Advanced Materials, 2013, 25, 256-260.	21.0	29
96	White fluorescent nano-fibers prepared by periodic organic hetero-epitaxy. Proceedings of SPIE, 2013, , .	0.8	1
97	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
98	Color Tuning of Nanofibers by Periodic Organicâ€“Organic Hetero-Epitaxy. ACS Nano, 2012, 6, 4629-4638.	14.6	35
99	New Configuration of Solidâ€State Neutron Detector Made Possible with Solutionâ€Based Semiconductor Processing. Advanced Functional Materials, 2012, 22, 3279-3283.	14.9	3
100	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.	21.0	18
101	Photo-Fries-based photosensitive polymeric interlayers for patterned organic devices. Applied Physics A: Materials Science and Processing, 2012, 107, 985-993.	2.3	9
102	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.	13.7	61
103	Plasmonic Photosensitization of a Wide Band Gap Semiconductor: Converting Plasmons to Charge Carriers. Nano Letters, 2011, 11, 5548-5552.	9.1	385
104	High Photoconductive Responsivity in Solutionâ€Processed Polycrystalline Organic Composite Films. Advanced Functional Materials, 2011, 21, 927-931.	14.9	24
105	Epitaxial growth of sexithiophene on mica surfaces. Physical Review B, 2011, 83, .	3.2	35
106	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.	3.3	3
107	Quantitative luminous efficiency determination for large-area light-emitting devices. Applied Physics A: Materials Science and Processing, 2010, 98, 337-344.	2.3	2
108	Organicâ€”Organic Heteroepitaxy of Red-, Green-, and Blue-Emitting Nanofibers. ACS Nano, 2010, 4, 6244-6250.	14.6	42

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109	Growth and optical properties of Î±-sexithiopene doped para-sexiphenyl nanofibers. Applied Physics Letters, 2009, 95, 013306.	3.3	10
110	Para-sexiphenyl-CdSe/ZnS nanocrystal hybrid light emitting diodes. Applied Physics Letters, 2009, 94, .	3.3	19
111	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
112	Origin of the low-energy emission band in epitaxially grown para-sexiphenyl nanocrystallites. Journal of Chemical Physics, 2009, 130, 084901.	3.0	3
113	Modification of para-sexiphenyl layer growth by UV induced polarity changes of polymeric substrates. Organic Electronics, 2009, 10, 326-332.	2.6	14
114	Small-molecule vacuum processed melamine-C60, organic field-effect transistors. Organic Electronics, 2009, 10, 408-415.	2.6	25
115	Spectroscopy of Defects in Epitaxially Grown Para-sexiphenyl Nanostructures. Springer Proceedings in Physics, 2009, , 121-125.	0.2	0
116	Para-Sexiphenyl Layers Grown On Light Sensitive Polymer Substrates. Springer Proceedings in Physics, 2009, , 23-27.	0.2	0
117	Vacuumâ€Processed Polyanilineâ€“C₆₀ Organic Field Effect Transistors. Advanced Materials, 2008, 20, 3887-3892.	21.0	55
118	Fe onto GaN(0001) grown in a full MOVPE process. Journal of Crystal Growth, 2008, 310, 1772-1776.	1.5	3
119	Search for a wetting layer in thin film growth of para-hexaphenyl on KCl(001). Thin Solid Films, 2008, 516, 2939-2942.	1.8	17
120	Two-photon absorption induced photoluminescence and the ultrafast dynamics of para-sexiphenyl nano-needles. , 2008, , .		0
121	Two-photon absorption induced photoluminescence in para-sexiphenyl nano-needles. Chemical Physics Letters, 2007, 446, 83-86.	2.6	4
122	Electrical transport properties of hot wall epitaxially grownpara -sexiphenyl nano-needles. Physica Status Solidi (B): Basic Research, 2006, 243, 3329-3332.	1.5	15
123	Blue-emission tuning of perovskite light-emitting diodes with a simple TPBi surface treatment. MRS Communications, 0, , 1.	1.8	1