Christos L Chochos

List of Publications by Year
in descending order

82 papers	2,784 citations	159585 30 h-index	182427 51 g-index
83 all docs	83 docs citations	83 times ranked	3941 citing authors

#	Article	IF	Citations
1	How the structural deviations on the backbone of conjugated polymers influence their optoelectronic properties and photovoltaic performance. Progress in Polymer Science, 2011, 36, 1326-1414.	24.7	329
2	The role of exciton lifetime for charge generation in organic solar cells at negligible energy-level offsets. Nature Energy, 2020, 5, 711-719.	39.5	214
3	Rational design on n-type organic materials for high performance organic photovoltaics. RSC Advances, 2013, 3, 7160.	3.6	138
4	Porous organic polymers as emerging new materials for organic photovoltaic applications: current status and future challenges. Materials Horizons, 2017, 4, 546-556.	12.2	125
5	Impact of the Alkyl Side Chains on the Optoelectronic Properties of a Series of Photovoltaic Low-Band-Gap Copolymers. Macromolecules, 2010, 43, 9779-9786.	4.8	122
6	Highly Efficient Solid-State Near-infrared Organic Light-Emitting Diodes incorporating A-D-A Dyes based on Î±,Î²-unsubstituted â€œBODIPYâ€• Moieties. Scientific Reports, 2017, 7, 1611.	3.3	112
7	Rodâˆ'Coil Block Copolymers Incorporating Terfluorene Segments for Stable Blue Light Emission. Journal of Physical Chemistry B, 2005, 109, 8755-8760.	2.6	77
8	Influence of the Coil Block on the Properties of Rodâˆ'Coil Diblock Copolymers with Oligofluorene as the Rigid Segment. Macromolecules, 2004, 37, 2502-2510.	4.8	70
9	BODIPY-based polymeric dyes as emerging horizon materials for biological sensing and organic electronic applications. Progress in Polymer Science, 2017, 71, 26-52.	24.7	67
10	Novel Brush-Type Copolymers Bearing Thiophene Backbone and Side Chain Quinoline Blocks. Synthesis and Their Use as a Compatibilizer in Thiopheneâˆ'Quinoline Polymer Blends. Macromolecules, 2007, 40, 921-927.	4.8	64
11	High efficiency blue organic light-emitting diodes with below-bandgap electroluminescence. Nature Communications, 2021, 12, 4868.	12.8	62
12	A [3,2-b]thienothiophene-alt-benzothiadiazole copolymer for photovoltaic applications: design, synthesis, material characterization and device performances. Journal of Materials Chemistry, 2009, 19, 4946.	6.7	61
13	Photophysics of Molecularâ€Weightâ€Induced Losses in Indacenodithienothiopheneâ€Based Solar Cells. Advanced Functional Materials, 2015, 25, 4898-4907.	14.9	61
14	Influence of the Electron Deficient Coâ€Monomer on the Optoelectronic Properties and Photovoltaic Performance of Dithienogermoleâ€based Coâ€Polymers. Advanced Functional Materials, 2014, 24, 678-687.	14.9	59
15	An Alternative Strategy to Adjust the Recombination Mechanism of Organic Photovoltaics by Implementing Ternary Compounds. Advanced Energy Materials, 2015, 5, 1501527.	19.5	56
16	Systematic Analysis of Polymer Molecular Weight Influence on the Organic Photovoltaic Performance. Macromolecular Rapid Communications, 2015, 36, 1778-1797.	3.9	49
17	Ultra low band gap Î±,Î²-unsubstituted BODIPY-based copolymer synthesized by palladium catalyzed cross-coupling polymerization for near infrared organic photovoltaics. Journal of Materials Chemistry A, 2015, 3, 16279-16286.	10.3	49
18	Highly Efficient Indoor Organic Solar Cells by Voltage Loss Minimization through Fine-Tuning of Polymer Structures. ACS Applied Materials & Interfaces, 2019, 11, 36905-36916.	8.0	49

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19	Synthesis of a Soluble n-Type Cyano Substituted Polythiophene Derivative:â€‰ A Potential Electron Acceptor in Polymeric Solar Cells. Journal of Physical Chemistry C, 2007, 111, 10732-10740.	3.1	46
20	High performance polymer electrolytes based on main and side chain pyridine aromatic polyethers for high and medium temperature proton exchange membrane fuel cells. Journal of Power Sources, 2011, 196, 9382-9390.	7.8	45
21	High-Performance Organic Photodetectors from a High-Bandgap Indacenodithiophene-Based ï€-Conjugated Donorâ€“Acceptor Polymer. ACS Applied Materials & Interfaces, 2018, 10, 12937-12946.	8.0	42
22	Hyperbranched Polymers for Photolithographic Applications â€“ Towards Understanding the Relationship between Chemical Structure of Polymer Resin and Lithographic Performances. Advanced Materials, 2009, 21, 1121-1125.	21.0	41
23	3,6â€Dialkylthieno[3,2â€<i>b</i>]thiophene moiety as a soluble and electron donating unit preserving the coplanarity of photovoltaic low band gap copolymers. Journal of Polymer Science Part A, 2012, 50, 1861-1868.	2.3	39
24	Infrared Organic Photodetectors Employing Ultralow Bandgap Polymer and Nonâ€Fullerene Acceptors for Biometric Monitoring. Small, 2022, 18, e2200580.	10.0	39
25	Current status, challenges and future outlook of high performance polymer semiconductors for organic photovoltaics modules. Progress in Polymer Science, 2019, 91, 51-79.	24.7	36
26	Electronic Properties and Photovoltaic Performances of a Series of Oligothiophene Copolymers Incorporating Both Thieno[3,2â€<i>b</i>]thiophene and 2,1,3â€Benzothiadiazole Moieties. Macromolecular Rapid Communications, 2010, 31, 651-656.	3.9	35
27	Synthesis, optical and morphological characterization of soluble main chain 1,3,4-oxadiazole copolyarylethersâ€”potential candidates for solar cells applications as electron acceptors. Polymer, 2005, 46, 4654-4663.	3.8	34
28	Novel BODIPY-based conjugated polymers donors for organic photovoltaic applications. RSC Advances, 2013, 3, 10221.	3.6	33
29	Novel Hybrid Materials Consisting of Regioregular Poly(3â€octylthiophene)s Covalently Attached to Singleâ€Wall Carbon Nanotubes. Chemistry - A European Journal, 2008, 14, 8715-8724.	3.3	32
30	Optimization of the side-chain density to improve the charge transport and photovoltaic performances of a low band gap copolymer. Organic Electronics, 2012, 13, 114-120.	2.6	32
31	Revealing the structural effects of non-fullerene acceptors on the performances of ternary organic photovoltaics under indoor light conditions. Nano Energy, 2020, 75, 104934.	16.0	30
32	Enhancement of the Power Conversion Efficiency in Organic Photovoltaics by Unveiling the Appropriate Polymer Backbone Enlargement Approach. Advanced Functional Materials, 2016, 26, 1840-1848.	14.9	28
33	Immobilization of Oligoquinoline Chains on Single-Wall Carbon Nanotubes and Their Optical Behavior. Macromolecules, 2008, 41, 1825-1830.	4.8	27
34	Adjusting the energy of interfacial states in organic photovoltaics for maximum efficiency. Nature Communications, 2021, 12, 1772.	12.8	27
35	New conjugated polymer nanoparticles with high photoluminescence quantum yields for far-red and near infrared fluorescence bioimaging. Materials Chemistry Frontiers, 2020, 4, 2357-2369.	5.9	25
36	The impact of thienothiophene isomeric structures on the optoelectronic properties and photovoltaic performance in quinoxaline based donorâ€“acceptor copolymers. Polymer Chemistry, 2015, 6, 3098-3109.	3.9	24

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37	The role of chemical structure in indacenodithienothiophene-<i>alt</i>-benzothiadiazole copolymers for high performance organic solar cells with improved photo-stability through minimization of burn-in loss. Journal of Materials Chemistry A, 2017, 5, 25064-25076.	10.3	24
38	Î±,Î²-Unsubstituted <i>meso</i>-positioning thienyl BODIPY: a promising electron deficient building block for the development of near infrared (NIR) p-type donorâ€“acceptor (Dâ€“A) conjugated polymers. Journal of Materials Chemistry C, 2018, 6, 4030-4040.	5.5	22
39	Porous organic polymers in solar cells. Chemical Society Reviews, 2022, 51, 4465-4483.	38.1	21
40	Beyond Donor-Acceptor (D-A) Approach: Structure-Optoelectronic Properties-Organic Photovoltaic Performance Correlation in New D-A₁-D-A₂Low-Bandgap Conjugated Polymers. Macromolecular Rapid Communications, 2017, 38, 1600720.	3.9	20
41	Rational Design of Highâ€Performance Wideâ€Bandgap (â‰ˆ2 eV) Polymer Semiconductors as Electron Donors in Organic Photovoltaics Exhibiting High Open Circuit Voltages (â‰ˆ1 V). Macromolecular Rapid Communications, 2017, 38, 1600614.	3.9	20
42	Synthesis of Dâ€<i>Ï€</i>â€Aâ€<i>Ï€</i> type benzodithiopheneâ€quinoxaline copolymers by direct arylation and their application in organic solar cells. Journal of Polymer Science Part A, 2018, 56, 1457-1467.	2.3	20
43	Thermally Stable Blue Emitting Terfluorene Block Copolymers. Journal of Physical Chemistry B, 2006, 110, 4657-4662.	2.6	17
44	Theoretical study of phenyl-substituted indacenodithiophene copolymers for high performance organic photovoltaics. Journal of Chemical Physics, 2013, 138, 064901.	3.0	17
45	The Role of Intrachain and Interchain Interactions of Regioregular Poly(3-octylthiophene) Chains on the Optical Properties of a New Amphiphilic Conjugated Random Copolymer in Solution. Langmuir, 2008, 24, 11103-11110.	3.5	16
46	Simple syntheses of cyclic polyamines using selectively N-tritylated polyamines and succinic anhydride. Tetrahedron Letters, 2002, 43, 2593-2596.	1.4	15
47	Suppressing the Surface Recombination and Tuning the Open-Circuit Voltage of Polymer/Fullerene Solar Cells by Implementing an Aggregative Ternary Compound. ACS Applied Materials & Interfaces, 2018, 10, 28803-28811.	8.0	15
48	2-(2,3,4,5,6-Pentafluorophenyl)-1H-benzo[d]imidazole, a fluorine-rich building block for the preparation of conjugated polymer donors for organic solar cell applications. Polymer Chemistry, 2012, 3, 2236.	3.9	13
49	Endâ€functionalization of semiconducting species with dendronized terpyridineâ€“Ru(II)â€“terpyridine complexes. Journal of Polymer Science Part A, 2009, 47, 1939-1952.	2.3	11
50	Enhancement of the Power-Conversion Efficiency of Organic Solar Cells via Unveiling an Appropriate Rational Design Strategy in Indacenodithiophene-alt-quinoxaline Ï€-Conjugated Polymers. ACS Applied Materials & Interfaces, 2018, 10, 10236-10245.	8.0	11
51	Thermal Stabilization of the Bulkâ€Heterojunction Morphology in Polymer:Fullerene Solar Cells Using a Bisazide Crossâ€Linker. Solar Rrl, 2019, 3, 1800266.	5.8	11
52	4<i>H</i>-1,2,6-Thiadiazine-containing donorâ€“acceptor conjugated polymers: synthesis, optoelectronic characterization and their use in organic solar cells. Journal of Materials Chemistry C, 2018, 6, 3658-3667.	5.5	10
53	Experimental and theoretical investigations on the optical and electrochemical properties of Ï€-conjugated donor-acceptor-donor (DAD) compounds toward a universal model. Journal of Chemical Physics, 2018, 149, 124902.	3.0	10
54	Effects of alkyl side chains positioning and presence of fused aromatic units in the backbone of lowâ€bandgap diketopyrrolopyrrole copolymers on the optoelectronic properties of organic solar cells. Journal of Polymer Science Part A, 2018, 56, 138-146.	2.3	9

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55	Indacenodithienothiophene-Based Ternary Organic Solar Cells. Frontiers in Energy Research, 2017, 4, .	2.3	8
56	Synthesis and characterization of conjugated polymers and their blends for optoelectronic applications. Macromolecular Symposia, 2004, 205, 19-32.	0.7	7
57	New rodâ€“coil block copolymers consisting of terfluorene segments and electron transporting units as the flexible blocks. European Polymer Journal, 2007, 43, 5065-5075.	5.4	7
58	Optimization of the power conversion efficiency in high bandgap pyridopyridinedithiophene-based conjugated polymers for organic photovoltaics by the random terpolymer approach. European Polymer Journal, 2017, 91, 92-99.	5.4	7
59	New nâ€Type Solution Processable All Conjugated Polymer Network: Synthesis, Optoelectronic Characterization, and Application in Organic Solar Cells. Macromolecular Rapid Communications, 2018, 39, 1700629.	3.9	7
60	Monitoring fluorescent calcium signals in neural cells with organic photodetectors. Journal of Materials Chemistry C, 2019, 7, 9049-9056.	5.5	7
61	Unraveling the Complex Nanomorphology of Ternary Organic Solar Cells with Multimodal Analytical Transmission Electron Microscopy. Solar Rrl, 2020, 4, 2000114.	5.8	7
62	Rational design of aqueous conjugated polymer nanoparticles as potential theranostic agents of breast cancer. Materials Chemistry Frontiers, 2021, 5, 4950-4962.	5.9	7
63	Green Inks for the Fabrication of Organic Solar Cells: A Case Study on PBDTTPD:PC₆₁BM Bulk Heterojunctions. Advanced Energy and Sustainability Research, 2021, 2, 2100043.	5.8	7
64	Defect passivation in perovskite solar cells using an amino-functionalized BODIPY fluorophore. Sustainable Energy and Fuels, 2022, 6, 2570-2580.	4.9	7
65	Synthesis and Optical Properties on a Series of Polyethers Incorporating Terfluorene Segments and Methylene Spacers. Journal of Macromolecular Science - Pure and Applied Chemistry, 2006, 43, 419-431.	2.2	6
66	High performance conjugated terpolymers as electron donors in nonfullerene organic solar cells. Journal of Materials Chemistry C, 2020, 8, 13422-13429.	5.5	6
67	Impact of molecular structure of polymer in 193 nm resist performance. Microelectronic Engineering, 2009, 86, 796-799.	2.4	5
68	Using pyridal[2,1,3]thiadiazole as an acceptor unit in a low band-gap copolymer for photovoltaic applications. Organic Electronics, 2015, 23, 171-178.	2.6	5
69	An Electron-Transporting Thiazole-Based Polymer Synthesized Through Direct (Hetero)Arylation Polymerization. Molecules, 2018, 23, 1270.	3.8	5
70	Enhancing the lifetime of inverted perovskite solar cells using a new hydrophobic hole transport material. Energy Advances, 2022, 1, 312-320.	3.3	5
71	Effect of Aryl Substituents and Fluorine Addition on the Optoelectronic Properties and Organic Solar Cell Performance of a High Efficiency Indacenodithienothiopheneâ€<i>alt</i>â€Quinoxaline Ï€â€Conjugated Polymer. Macromolecular Chemistry and Physics, 2019, 220, 1800418.	2.2	4
72	Structural Study of (Hydroxypropyl)Methyl Cellulose Microemulsion-Based Gels Used for Biocompatible Encapsulations. Nanomaterials, 2020, 10, 2204.	4.1	4

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73	The role of the ethynylene bond on the optical and electronic properties of diketopyrrolopyrrole copolymers. RSC Advances, 2014, 4, 58404-58411.	3.6	3
74	Impact of the Catalytic System on the Formation of Structural Defects for the Synthesis of Wellâ€Defined Donorâ€"Acceptor Semiconducting Polymers. Macromolecular Chemistry and Physics, 2017, 218, 1700283.	2.2	3
75	PEDOT:PSS:sulfonium salt composite hole injection layers for efficient organic light emitting diodes. Organic Electronics, 2021, 93, 106155.	2.6	2
76	Synthesis and Characterization of Random Copolymers Combining Terfluorene Segments and Hole or Electron Transporting Moieties. Journal of Macromolecular Science - Pure and Applied Chemistry, 2007, 44, 923-930.	2.2	1
77	Organic Solar Cells: An Alternative Strategy to Adjust the Recombination Mechanism of Organic Photovoltaics by Implementing Ternary Compounds (Adv. Energy Mater. 24/2015). Advanced Energy Materials, 2015, 5, .	19.5	1
78	Far-Red to Near Infrared Emissive Aqueous Nanoparticles Based on a New Organic Material with Three BODIPY Dyes at the Periphery of the Core: A Combined Experimental and Theoretical Study. Electronic Materials, 2021, 2, 24-38.	1.9	1
79	Development of a Multi-Enzymatic Approach for the Modification of Biopolymers with Ferulic Acid. Biomolecules, 2022, 12, 992.	4.0	1
80	CORRELATION OF THE MOLECULAR ORIENTATION AND PHOTONIC PROPERTIES OF RIGID-FLEXIBLE AROMATIC POLYETHERS USING FT-IR LINEAR DICHROISM AND PHOTOLUMINESCENCE SPECTROSCOPIC TECHNIQUES. Journal of Macromolecular Science - Pure and Applied Chemistry, 2002, 39, 1317-1333.	2.2	0
81	On the Origin of Color Degradation in Polyfluorenes â€" Block Copolymer Approach for Stable Blue Light Emission. Materials Research Society Symposia Proceedings, 2004, 856, BB2.9.1.	0.1	0
82	Bulk Heterojunction Photovoltaic Cells from Polymer Mixtures with Soluble Oxadiazole and Quinoline Polymers as Electron Acceptors. Materials Research Society Symposia Proceedings, 2004, 836, L5.16.1.	0.1	0