Christian B Nielsen

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/6506708/publications.pdf

Version: 2024-02-01

91 papers	9,079 citations	53751 45 h-index	51562 86 g-index
92 all docs	92 docs citations	92 times ranked	9213 citing authors

#	Article	IF	Citations
1	Non-Fullerene Electron Acceptors for Use in Organic Solar Cells. Accounts of Chemical Research, 2015, 48, 2803-2812.	7.6	1,063
2	High-efficiency and air-stable P3HT-based polymer solar cells with a new non-fullerene acceptor. Nature Communications, 2016, 7, 11585.	5.8	1,053
3	Recent Advances in the Development of Semiconducting DPPâ€Containing Polymers for Transistor Applications. Advanced Materials, 2013, 25, 1859-1880.	11.1	793
4	A Rhodanine Flanked Nonfullerene Acceptor for Solution-Processed Organic Photovoltaics. Journal of the American Chemical Society, 2015, 137, 898-904.	6.6	446
5	The role of chemical design in the performance of organic semiconductors. Nature Reviews Chemistry, 2020, 4, 66-77.	13.8	444
6	Controlling the mode of operation of organic transistors through side-chain engineering. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 12017-12022.	3.3	364
7	Chalcogenophene Comonomer Comparison in Small Band Gap Diketopyrrolopyrrole-Based Conjugated Polymers for High-Performing Field-Effect Transistors and Organic Solar Cells. Journal of the American Chemical Society, 2015, 137, 1314-1321.	6.6	363
8	Molecular Design of Semiconducting Polymers for High-Performance Organic Electrochemical Transistors. Journal of the American Chemical Society, 2016, 138, 10252-10259.	6.6	270
9	Design of Semiconducting Indacenodithiophene Polymers for High Performance Transistors and Solar Cells. Accounts of Chemical Research, 2012, 45, 714-722.	7.6	256
10	N-type organic electrochemical transistors with stability in water. Nature Communications, 2016, 7, 13066.	5.8	242
11	Effect of Fluorination on the Properties of a Donorâ€“Acceptor Copolymer for Use in Photovoltaic Cells and Transistors. Chemistry of Materials, 2013, 25, 277-285.	3.2	218
12	On the Energetic Dependence of Charge Separation in Low-Band-Gap Polymer/Fullerene Blends. Journal of the American Chemical Society, 2012, 134, 18189-18192.	6.6	180
13	Fused Dithienogermolodithiophene Low Band Gap Polymers for High-Performance Organic Solar Cells without Processing Additives. Journal of the American Chemical Society, 2013, 135, 2040-2043.	6.6	145
14	Recent advances in high mobility donorâ€“acceptor semiconducting polymers. Journal of Materials Chemistry, 2012, 22, 14803.	6.7	138
15	Discrete Photopatternable Ï€-Conjugated Oligomers for Electrochromic Devices. Journal of the American Chemical Society, 2008, 130, 9734-9746.	6.6	122
16	Charge-Transfer State Dynamics Following Hole and Electron Transfer in Organic Photovoltaic Devices. Journal of Physical Chemistry Letters, 2013, 4, 209-215.	2.1	120
17	A Thieno[3,2â€b][1]benzothiophene Isoindigo Building Block for Additiveâ€•and Annealingâ€Free Highâ€Performance Polymer Solar Cells. Advanced Materials, 2015, 27, 4702-4707.	11.1	120
18	Recent advances in transistor performance of polythiophenes. Progress in Polymer Science, 2013, 38, 2053-2069.	11.8	117

#	Article	IF	Citations
19	An electron beam evaporated TiO₂layer for high efficiency planar perovskite solar cells on flexible polyethylene terephthalate substrates. Journal of Materials Chemistry A, 2015, 3, 22824-22829.	5.2	116
20	Random benzotrithiophene-based donorâ€“acceptor copolymers for efficient organic photovoltaic devices. Chemical Communications, 2012, 48, 5832.	2.2	111
21	Singlet Exciton Lifetimes in Conjugated Polymer Films for Organic Solar Cells. Polymers, 2016, 8, 14.	2.0	111
22	New Regiosymmetrical Dioxopyrrolo- and Dihydropyrrolo-Functionalized Polythiophenes. Organic Letters, 2004, 6, 3381-3384.	2.4	100
23	Effect of Fluorination of 2,1,3-Benzothiadiazole. Journal of Organic Chemistry, 2015, 80, 5045-5048.	1.7	96
24	2,1,3â€Benzothiadiazoleâ€5,6â€Dicarboxylic Imide â€“ A Versatile Building Block for Additiveâ€and Annealingâ€Free Processing of Organic Solar Cells with Efficiencies Exceeding 8%. Advanced Materials, 2015, 27, 948-953.	11.1	88
25	Influence of Crystallinity and Energetics on Charge Separation in Polymerâ€“Inorganic Nanocomposite Films for Solar Cells. Scientific Reports, 2013, 3, 1531.	1.6	84
26	Organic semiconductors for biological sensing. Journal of Materials Chemistry C, 2019, 7, 1111-1130.	2.7	84
27	Redoxâ€Stability of Alkoxyâ€BDT Copolymers and their Use for Organic Bioelectronic Devices. Advanced Functional Materials, 2018, 28, 1706325.	7.8	77
28	Tuning the effective spin-orbit coupling in molecular semiconductors. Nature Communications, 2017, 8, 15200.	5.8	70
29	Performance Improvements in Conjugated Polymer Devices by Removal of Waterâ€Induced Traps. Advanced Materials, 2018, 30, e1801874.	11.1	69
30	Benzotrithiophene - A Planar, Electron-Rich Building Block for Organic Semiconductors. Organic Letters, 2011, 13, 2414-2417.	2.4	68
31	Azaisoindigo conjugated polymers for high performance n-type and ambipolar thin film transistor applications. Journal of Materials Chemistry C, 2016, 4, 9704-9710.	2.7	65
32	Synthesis of novel thieno[3,2-b]thienobis(silolothiophene) based low bandgap polymers for organic photovoltaics. Chemical Communications, 2012, 48, 7699.	2.2	63
33	Dual Function Additives: A Small Molecule Crosslinker for Enhanced Efficiency and Stability in Organic Solar Cells. Advanced Energy Materials, 2015, 5, 1401426.	10.2	61
34	Stereoselective Reactions of ortho-Quinone Methide and ortho-Quinone Methide Imines and Their Utility in Natural Product Synthesis. Synthesis, 2018, 50, 4008-4018.	1.2	61
35	Thieno[3,2â€b]thiophene Flanked Isoindigo Polymers for High Performance Ambipolar OFET Applications. Advanced Functional Materials, 2014, 24, 7109-7115.	7.8	58
36	Benzotrithiophene Co-polymers with High Charge Carrier Mobilities in Field-Effect Transistors. Chemistry of Materials, 2011, 23, 4025-4031.	3.2	56

#	Article	IF	Citations
37	Efficient Charge Photogeneration by the Dissociation of PC70BM Excitons in Polymer/Fullerene Solar Cells. Journal of Physical Chemistry Letters, 2012, 3, 140-144.	2.1	56
38	Sodium and Potassium Ion Selective Conjugated Polymers for Optical Ion Detection in Solution and Solid State. Advanced Functional Materials, 2016, 26, 514-523.	7.8	56
39	High mobility, hole transport materials for highly efficient PEDOT:PSS replacement in inverted perovskite solar cells. Journal of Materials Chemistry C, 2017, 5, 4940-4945.	2.7	56
40	Mixed Ionic and Electronic Conduction in Small-Molecule Semiconductors. Chemical Reviews, 2022, 122, 4397-4419.	23.0	52
41	Pyrroloindacenodithiophene containing polymers for organic field effect transistors and organic photovoltaics. Journal of Materials Chemistry, 2011, 21, 18744.	6.7	50
42	Highly efficient perovskite solar cells with crosslinked PCBM interlayers. Journal of Materials Chemistry A, 2017, 5, 2466-2472.	5.2	49
43	A Systematic Approach to the Design Optimization of Lightâ€Absorbing Indenofluorene Polymers for Organic Photovoltaics. Advanced Energy Materials, 2012, 2, 260-265.	10.2	48
44	Efficient truxenone-based acceptors for organic photovoltaics. Journal of Materials Chemistry A, 2013, 1, 73-76.	5.2	48
45	Macroscopic Alignment of Graphene Stacks by Langmuirâ’Blodgett Deposition of Amphiphilic Hexabenzocoronenes. Langmuir, 2004, 20, 4139-4146.	1.6	46
46	Semiconducting Small Molecules as Active Materials for pâ€Type Accumulation Mode Organic Electrochemical Transistors. Advanced Electronic Materials, 2020, 6, 2000215.	2.6	46
47	A benzotrithiophene-based low band gap polymer for polymer solar cells with high open-circuit voltage. Journal of Materials Chemistry, 2011, 21, 17642.	6.7	44
48	New Fused Bis-Thienobenzothienothiophene Copolymers and Their Use in Organic Solar Cells and Transistors. Macromolecules, 2013, 46, 727-735.	2.2	43
49	Towards optimisation of photocurrent from fullerene excitons in organic solar cells. Energy and Environmental Science, 2014, 7, 1037.	15.6	42
50	Thermoelectric Materials: Current Status and Future Challenges. Frontiers in Electronic Materials, 2021, 1, .	1.6	41
51	Investigation of the thermoelectric response in conducting polymers doped by solid-state diffusion. Materials Today Physics, 2019, 8, 112-122.	2.9	40
52	From pâ€to nâ€Type Mixed Conduction in Isoindigoâ€Based Polymers through Molecular Design. Advanced Materials, 2022, 34, e2107829.	11.1	38
53	Effect of polar side chains on neutral and p-doped polythiophene. Journal of Materials Chemistry C, 2020, 8, 16216-16223.	2.7	34
54	Electron-deficient truxenone derivatives and their use in organic photovoltaics. Journal of Materials Chemistry A, 2014, 2, 12348-12354.	5.2	32

#	Article	IF	Citations
55	Structureâ^'Property Relations of Regiosymmetrical 3,4-Dioxy-Functionalized Polythiophenes. Macromolecules, 2005, 38, 10379-10387.	2.2	28
56	Benzotrithiophene Copolymers: Influence of Molecular Packing and Energy Levels on Charge Carrier Mobility. Macromolecules, 2014, 47, 2883-2890.	2.2	26
57	Glycolated Thiopheneâ€Tetrafluorophenylene Copolymers for Bioelectronic Applications: Synthesis by Direct Heteroarylation Polymerisation. ChemPlusChem, 2019, 84, 1384-1390.	1.3	26
58	Improved Field-Effect Transistor Performance of a Benzotrithiophene Polymer through Ketal Cleavage in the Solid State. ACS Applied Materials & Interfaces, 2013, 5, 1806-1810.	4.0	23
59	Synthesis of Hetero-bifunctional, End-Capped Oligo-EDOT Derivatives. CheM, 2017, 2, 125-138.	5.8	21
60	Influence of alkyl chain length on charge transport in symmetrically substituted poly(2,5-dialkoxy-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML") Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 542 Td (displ 2009, 79, .	1.1	20
61	New Insights into the Molecular Dynamics of P3HT:PCBM Bulk Heterojunction: A Time-of-Flight Quasi-Elastic Neutron Scattering Study. Journal of Physical Chemistry Letters, 2016, 7, 2252-2257.	2.1	19
62	Naphthacenodithiophene Based Polymersâ€"New Members of the Acenodithiophene Family Exhibiting High Mobility and Power Conversion Efficiency. Advanced Functional Materials, 2016, 26, 6961-6969.	7.8	19
63	Influence of side chain symmetry on the performance of poly(2,5-dialkoxy-p-phenylenevinylene): fullerene blend solar cells. Organic Electronics, 2009, 10, 562-567.	1.4	18
64	Correlation between microstructure and charge transport in poly(2,5-dimethoxy-p-phenylenevinylene) thin films. Physical Review B, 2007, 76, .	1.1	17
65	Aldol Polymerization to Construct Half-Fused Semiconducting Polymers. Macromolecules, 2021, 54, 10312-10320.	2.2	15
66	Post-Polymerization Ketalization for Improved Organic Photovoltaic Materials. Macromolecules, 2013, 46, 7727-7732.	2.2	14
67	Power conversion efficiency enhancement in diketopyrrolopyrrole based solar cells through polymer fractionation. Journal of Materials Chemistry C, 2014, 2, 8593-8598.	2.7	14
68	Mapping Microstructural Dynamics up to the Nanosecond of the Conjugated Polymer P3HT in the Solid State. Chemistry of Materials, 2019, 31, 9635-9651.	3.2	10
69	Influence of the Alkyl Mantle on the Self-Assembly of Phenyleneâ^'Thienylene-Based Oligomers. Chemistry of Materials, 2011, 23, 1939-1945.	3.2	8
70	Conjugated molecules for colourimetric and fluorimetric sensing of sodium and potassium. Materials Chemistry Frontiers, 2020, 4, 2370-2377.	3.2	8
71	Multi length scale porosity as a playground for organic thermoelectric applications. Journal of Materials Chemistry C, 2021, 9, 10173-10192.	2.7	8
72	Controlling morphology, adhesion, and electrochromic behavior of <scp>PEDOT</scp> films through molecular design and processing. Journal of Polymer Science, 2022, 60, 504-516.	2.0	8

#	Article	IF	Citations
73	Alkyl side-chain branching point effects in thieno[3,4-c]pyrrole-4,6-dione copolymers. Journal of Organic Semiconductors, 2013, 1, 30-35.	1.2	7
74	Epitaxial Templating of C60 with a Molecular Monolayer. Journal of Physical Chemistry Letters, 2016, 7, 3487-3490.	2.1	7
75	Effect of substituting non-polar chains with polar chains on the structural dynamics of small organic molecule and polymer semiconductors. Physical Chemistry Chemical Physics, 2021, 23, 7462-7471.	1.3	5
76	Drastic Enhancement of X-ray Scattering Contrast between Amorphous and Crystalline Phases of Poly(3-hexylthiophene) at the Sulfur K-Edge. , 0, , 764-769.		5
77	Organic/inorganic epitaxy: commensurate epitaxial growth of truxenone on Cu (111). RSC Advances, 2016, 6, 17125-17128.	1.7	4
78	Bis-lactam-based donor polymers for organic solar cells: Evolution by design. Thin Solid Films, 2014, 560, 82-85.	0.8	3
79	Dithienosilolothiophene: A New Polyfused Donor for Organic Electronics. Macromolecules, 2015, 48, 5557-5562.	2.2	3
80	Secondary kinetic deuterium isotope effects. The CC cleavage of labeled tetramethylethylenediamine radical cationsâ€"Who gets to keep the electron?. International Journal of Mass Spectrometry, 2017, 413, 92-96.	0.7	3
81	Resolving the backbone tilt of crystalline poly(3-hexylthiophene) with resonant tender X-ray diffraction. Materials Horizons, 2022, 9, 1649-1657.	6.4	3
82	Critical analysis of self-doping and water-soluble n-type organic semiconductors: structures and mechanisms. Journal of Materials Chemistry C, 0, , .	2.7	3
83	Effects of alkyl chain positioning on conjugated polymer microstructure and field-effect mobilities. MRS Communications, 2015, 5, 435-440.	0.8	2
84	Organic Photovoltaics: More than Ever, an Interdisciplinary Field. Polymers, 2016, 8, 70.	2.0	2
85	The effect of fluorination on the surface structure of truxenones. RSC Advances, 2016, 6, 67315-67318.	1.7	2
86	Solution-Processed Donorâ€"Acceptor Poly(3-hexylthiophene):Phenyl-C₆₁-butyric Acid Methyl Ester Diodes for Low-Voltage Î± Particle Detection. ACS Applied Materials & Interfaces, 2021, 13, 6470-6479.	4.0	2
87	Quantitative insights into the phase behaviour and miscibility of organic photovoltaic active layers from the perspective of neutron spectroscopy. Journal of Materials Chemistry C, 2021, 9, 11873-11881.	2.7	2
88	Correction to â€œImproved Field-Effect Transistor Performance of a Benzotrithiophene Polymer through Ketal Cleavage in the Solid Stateâ€• ACS Applied Materials & Interfaces, 2013, 5, 2783-2783.	4.0	0
89	Charge generation in polymer:fullerene photovoltaic systems (Conference Presentation). , 2016, , .		0
90	Conjugated Polymers for n- and p-Type Charge Transport. , 2019, , 325-428.		0

#	Article	IF	Citations
91	Quantitative Insights into the Adsorption Structure of Diindeno[1,2-a;1â€²,2â€²-c]fluorene-5,10,15-trione (Truxenone) on a Cu(111) Surface Using X-ray Standing Waves. ACS Omega, 2021, 6, 34525-34531.	1.6	0