

Christian B Nielsen

List of Publications by Year in descending order

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91
papers

9,079
citations

53751

45
h-index

51562

86
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92
all docs

92
docs citations

92
times ranked

9213
citing authors

#	ARTICLE	IF	CITATIONS
1	Controlling morphology, adhesion, and electrochromic behavior of PEDOT films through molecular design and processing. <i>Journal of Polymer Science</i> , 2022, 60, 504-516.	2.0	8
2	Mixed Ionic and Electronic Conduction in Small-Molecule Semiconductors. <i>Chemical Reviews</i> , 2022, 122, 4397-4419.	23.0	52
3	From p-Type to n-Type Mixed Conduction in Isoindigo-Based Polymers through Molecular Design. <i>Advanced Materials</i> , 2022, 34, e2107829.	11.1	38
4	Resolving the backbone tilt of crystalline poly(3-hexylthiophene) with resonant tender X-ray diffraction. <i>Materials Horizons</i> , 2022, 9, 1649-1657.	6.4	3
5	Multi length scale porosity as a playground for organic thermoelectric applications. <i>Journal of Materials Chemistry C</i> , 2021, 9, 10173-10192.	2.7	8
6	Effect of substituting non-polar chains with polar chains on the structural dynamics of small organic molecule and polymer semiconductors. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 7462-7471.	1.3	5
7	Solution-Processed Donor-Acceptor Poly(3-hexylthiophene):Phenyl-C ₆₁ -butyric Acid Methyl Ester Diodes for Low-Voltage Particle Detection. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 6470-6479.	4.0	2
8	Thermoelectric Materials: Current Status and Future Challenges. <i>Frontiers in Electronic Materials</i> , 2021, 1, .	1.6	41
9	Quantitative insights into the phase behaviour and miscibility of organic photovoltaic active layers from the perspective of neutron spectroscopy. <i>Journal of Materials Chemistry C</i> , 2021, 9, 11873-11881.	2.7	2
10	Aldol Polymerization to Construct Half-Fused Semiconducting Polymers. <i>Macromolecules</i> , 2021, 54, 10312-10320.	2.2	15
11	Quantitative Insights into the Adsorption Structure of Diindeno[1,2-a;1,2-c]fluorene-5,10,15-trione (Truxenone) on a Cu(111) Surface Using X-ray Standing Waves. <i>ACS Omega</i> , 2021, 6, 34525-34531.	1.6	0
12	The role of chemical design in the performance of organic semiconductors. <i>Nature Reviews Chemistry</i> , 2020, 4, 66-77.	13.8	444
13	Effect of polar side chains on neutral and p-doped polythiophene. <i>Journal of Materials Chemistry C</i> , 2020, 8, 16216-16223.	2.7	34
14	Semiconducting Small Molecules as Active Materials for p-Type Accumulation Mode Organic Electrochemical Transistors. <i>Advanced Electronic Materials</i> , 2020, 6, 2000215.	2.6	46
15	Conjugated molecules for colourimetric and fluorimetric sensing of sodium and potassium. <i>Materials Chemistry Frontiers</i> , 2020, 4, 2370-2377.	3.2	8
16	Mapping Microstructural Dynamics up to the Nanosecond of the Conjugated Polymer P3HT in the Solid State. <i>Chemistry of Materials</i> , 2019, 31, 9635-9651.	3.2	10
17	Organic semiconductors for biological sensing. <i>Journal of Materials Chemistry C</i> , 2019, 7, 1111-1130.	2.7	84
18	Glycolated Thiophene-Tetrafluorophenylene Copolymers for Bioelectronic Applications: Synthesis by Direct Heteroarylation Polymerisation. <i>ChemPlusChem</i> , 2019, 84, 1384-1390.	1.3	26

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19	Investigation of the thermoelectric response in conducting polymers doped by solid-state diffusion. <i>Materials Today Physics</i> , 2019, 8, 112-122.	2.9	40
20	Conjugated Polymers for n- and p-Type Charge Transport. , 2019, , 325-428.		0
21	Redoxâ€Stability of Alkoxyâ€BDT Copolymers and their Use for Organic Bioelectronic Devices. <i>Advanced Functional Materials</i> , 2018, 28, 1706325.	7.8	77
22	Performance Improvements in Conjugated Polymer Devices by Removal of Waterâ€Induced Traps. <i>Advanced Materials</i> , 2018, 30, e1801874.	11.1	69
23	Stereoselective Reactions of ortho-Quinone Methide and ortho-Quinone Methide Imines and Their Utility in Natural Product Synthesis. <i>Synthesis</i> , 2018, 50, 4008-4018.	1.2	61
24	Synthesis of Hetero-bifunctional, End-Capped Oligo-EDOT Derivatives. <i>CheM</i> , 2017, 2, 125-138.	5.8	21
25	Highly efficient perovskite solar cells with crosslinked PCBM interlayers. <i>Journal of Materials Chemistry A</i> , 2017, 5, 2466-2472.	5.2	49
26	High mobility, hole transport materials for highly efficient PEDOT:PSS replacement in inverted perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2017, 5, 4940-4945.	2.7	56
27	Tuning the effective spin-orbit coupling in molecular semiconductors. <i>Nature Communications</i> , 2017, 8, 15200.	5.8	70
28	Secondary kinetic deuterium isotope effects. The CC cleavage of labeled tetramethylethylenediamine radical cationsâ€Who gets to keep the electron?. <i>International Journal of Mass Spectrometry</i> , 2017, 413, 92-96.	0.7	3
29	Singlet Exciton Lifetimes in Conjugated Polymer Films for Organic Solar Cells. <i>Polymers</i> , 2016, 8, 14.	2.0	111
30	Organic Photovoltaics: More than Ever, an Interdisciplinary Field. <i>Polymers</i> , 2016, 8, 70.	2.0	2
31	New Insights into the Molecular Dynamics of P3HT:PCBM Bulk Heterojunction: A Time-of-Flight Quasi-Elastic Neutron Scattering Study. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 2252-2257.	2.1	19
32	Sodium and Potassium Ion Selective Conjugated Polymers for Optical Ion Detection in Solution and Solid State. <i>Advanced Functional Materials</i> , 2016, 26, 514-523.	7.8	56
33	Azaisoindigo conjugated polymers for high performance n-type and ambipolar thin film transistor applications. <i>Journal of Materials Chemistry C</i> , 2016, 4, 9704-9710.	2.7	65
34	Controlling the mode of operation of organic transistors through side-chain engineering. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 12017-12022.	3.3	364
35	Epitaxial Templating of C60 with a Molecular Monolayer. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 3487-3490.	2.1	7
36	Naphthacenodithiophene Based Polymersâ€New Members of the Acenodithiophene Family Exhibiting High Mobility and Power Conversion Efficiency. <i>Advanced Functional Materials</i> , 2016, 26, 6961-6969.	7.8	19

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37	The effect of fluorination on the surface structure of truxenones. RSC Advances, 2016, 6, 67315-67318.	1.7	2
38	Molecular Design of Semiconducting Polymers for High-Performance Organic Electrochemical Transistors. Journal of the American Chemical Society, 2016, 138, 10252-10259.	6.6	270
39	N-type organic electrochemical transistors with stability in water. Nature Communications, 2016, 7, 13066.	5.8	242
40	Charge generation in polymer:fullerene photovoltaic systems (Conference Presentation). , 2016, , .		0
41	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
42	Organic/inorganic epitaxy: commensurate epitaxial growth of truxenone on Cu (111). RSC Advances, 2016, 6, 17125-17128.	1.7	4
43	A Thieno[3,2 <i>b</i>]benzothiophene Isoindigo Building Block for Additive- and Annealing-Free High-Performance Polymer Solar Cells. Advanced Materials, 2015, 27, 4702-4707.	11.1	120
44	Effects of alkyl chain positioning on conjugated polymer microstructure and field-effect mobilities. MRS Communications, 2015, 5, 435-440.	0.8	2
45	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
46	A Rhodanine Flanked Nonfullerene Acceptor for Solution-Processed Organic Photovoltaics. Journal of the American Chemical Society, 2015, 137, 898-904.	6.6	446
47	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
48	Effect of Fluorination of 2,1,3-Benzothiadiazole. Journal of Organic Chemistry, 2015, 80, 5045-5048.	1.7	96
49	An electron beam evaporated TiO ₂ layer for high efficiency planar perovskite solar cells on flexible polyethylene terephthalate substrates. Journal of Materials Chemistry A, 2015, 3, 22824-22829.	5.2	116
50	Non-Fullerene Electron Acceptors for Use in Organic Solar Cells. Accounts of Chemical Research, 2015, 48, 2803-2812.	7.6	1,063
51	Dithienosilolothiophene: A New Polyfused Donor for Organic Electronics. Macromolecules, 2015, 48, 5557-5562.	2.2	3
52	2,1,3-Benzothiadiazole-5,6-Dicarboxylic Imide – A Versatile Building Block for Additive- and Annealing-Free Processing of Organic Solar Cells with Efficiencies Exceeding 8%. Advanced Materials, 2015, 27, 948-953.	11.1	88
53	Benzotrithiophene Copolymers: Influence of Molecular Packing and Energy Levels on Charge Carrier Mobility. Macromolecules, 2014, 47, 2883-2890.	2.2	26
54	Towards optimisation of photocurrent from fullerene excitons in organic solar cells. Energy and Environmental Science, 2014, 7, 1037.	15.6	42

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55	Electron-deficient truxenone derivatives and their use in organic photovoltaics. <i>Journal of Materials Chemistry A</i> , 2014, 2, 12348-12354.	5.2	32
56	Power conversion efficiency enhancement in diketopyrrolopyrrole based solar cells through polymer fractionation. <i>Journal of Materials Chemistry C</i> , 2014, 2, 8593-8598.	2.7	14
57	Thieno[3,2- <i>b</i>]thiophene Flanked Isoindigo Polymers for High Performance Ambipolar OFET Applications. <i>Advanced Functional Materials</i> , 2014, 24, 7109-7115.	7.8	58
58	Bis-lactam-based donor polymers for organic solar cells: Evolution by design. <i>Thin Solid Films</i> , 2014, 560, 82-85.	0.8	3
59	New Fused Bis-Thienobenzothienothiophene Copolymers and Their Use in Organic Solar Cells and Transistors. <i>Macromolecules</i> , 2013, 46, 727-735.	2.2	43
60	Post-Polymerization Ketalization for Improved Organic Photovoltaic Materials. <i>Macromolecules</i> , 2013, 46, 7727-7732.	2.2	14
61	Charge-Transfer State Dynamics Following Hole and Electron Transfer in Organic Photovoltaic Devices. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 209-215.	2.1	120
62	Efficient truxenone-based acceptors for organic photovoltaics. <i>Journal of Materials Chemistry A</i> , 2013, 1, 73-76.	5.2	48
63	Fused Dithienogermolodithiophene Low Band Gap Polymers for High-Performance Organic Solar Cells without Processing Additives. <i>Journal of the American Chemical Society</i> , 2013, 135, 2040-2043.	6.6	145
64	Effect of Fluorination on the Properties of a Donor-Acceptor Copolymer for Use in Photovoltaic Cells and Transistors. <i>Chemistry of Materials</i> , 2013, 25, 277-285.	3.2	218
65	Recent advances in transistor performance of polythiophenes. <i>Progress in Polymer Science</i> , 2013, 38, 2053-2069.	11.8	117
66	Influence of Crystallinity and Energetics on Charge Separation in Polymer-Inorganic Nanocomposite Films for Solar Cells. <i>Scientific Reports</i> , 2013, 3, 1531.	1.6	84
67	Improved Field-Effect Transistor Performance of a Benzotrithiophene Polymer through Ketal Cleavage in the Solid State. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 1806-1810.	4.0	23
68	Correction to "Improved Field-Effect Transistor Performance of a Benzotrithiophene Polymer through Ketal Cleavage in the Solid State". <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 2783-2783.	4.0	0
69	Recent Advances in the Development of Semiconducting DPP-Containing Polymers for Transistor Applications. <i>Advanced Materials</i> , 2013, 25, 1859-1880.	11.1	793
70	Alkyl side-chain branching point effects in thieno[3,4- <i>c</i>]pyrrole-4,6-dione copolymers. <i>Journal of Organic Semiconductors</i> , 2013, 1, 30-35.	1.2	7
71	Random benzotrithiophene-based donor-acceptor copolymers for efficient organic photovoltaic devices. <i>Chemical Communications</i> , 2012, 48, 5832.	2.2	111
72	On the Energetic Dependence of Charge Separation in Low-Band-Gap Polymer/Fullerene Blends. <i>Journal of the American Chemical Society</i> , 2012, 134, 18189-18192.	6.6	180

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73	Synthesis of novel thieno[3,2-b]thienobis(silolothiophene) based low bandgap polymers for organic photovoltaics. <i>Chemical Communications</i> , 2012, 48, 7699.	2.2	63
74	Efficient Charge Photogeneration by the Dissociation of PC70BM Excitons in Polymer/Fullerene Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 140-144.	2.1	56
75	Recent advances in high mobility donor-acceptor semiconducting polymers. <i>Journal of Materials Chemistry</i> , 2012, 22, 14803.	6.7	138
76	A Systematic Approach to the Design Optimization of Light-Absorbing Indenofluorene Polymers for Organic Photovoltaics. <i>Advanced Energy Materials</i> , 2012, 2, 260-265.	10.2	48
77	Design of Semiconducting Indacenodithiophene Polymers for High Performance Transistors and Solar Cells. <i>Accounts of Chemical Research</i> , 2012, 45, 714-722.	7.6	256
78	Influence of the Alkyl Mantle on the Self-Assembly of Phenylene-Thienylene-Based Oligomers. <i>Chemistry of Materials</i> , 2011, 23, 1939-1945.	3.2	8
79	Benzotrithiophene - A Planar, Electron-Rich Building Block for Organic Semiconductors. <i>Organic Letters</i> , 2011, 13, 2414-2417.	2.4	68
80	Benzotrithiophene Co-polymers with High Charge Carrier Mobilities in Field-Effect Transistors. <i>Chemistry of Materials</i> , 2011, 23, 4025-4031.	3.2	56
81	Pyrrloindacenodithiophene containing polymers for organic field effect transistors and organic photovoltaics. <i>Journal of Materials Chemistry</i> , 2011, 21, 18744.	6.7	50
82	A benzotrithiophene-based low band gap polymer for polymer solar cells with high open-circuit voltage. <i>Journal of Materials Chemistry</i> , 2011, 21, 17642.	6.7	44
83	Influence of alkyl chain length on charge transport in symmetrically substituted poly(2,5-dialkoxy-p-phenylenevinylene). <i>Journal of Materials Chemistry</i> , 2009, 19, 10342-10346.	1.1	50
84	Influence of side chain symmetry on the performance of poly(2,5-dialkoxy-p-phenylenevinylene): fullerene blend solar cells. <i>Organic Electronics</i> , 2009, 10, 562-567.	1.4	18
85	Discrete Photopatternable π -Conjugated Oligomers for Electrochromic Devices. <i>Journal of the American Chemical Society</i> , 2008, 130, 9734-9746.	6.6	122
86	Correlation between microstructure and charge transport in poly(2,5-dimethoxy-p-phenylenevinylene) thin films. <i>Physical Review B</i> , 2007, 76, .	1.1	17
87	Structure-Property Relations of Regiosymmetrical 3,4-Dioxy-Functionalized Polythiophenes. <i>Macromolecules</i> , 2005, 38, 10379-10387.	2.2	28
88	Macroscopic Alignment of Graphene Stacks by Langmuir-Blodgett Deposition of Amphiphilic Hexabenzocoronenes. <i>Langmuir</i> , 2004, 20, 4139-4146.	1.6	46
89	New Regiosymmetrical Dioxypyrrolo- and Dihydropyrrolo-Functionalized Polythiophenes. <i>Organic Letters</i> , 2004, 6, 3381-3384.	2.4	100
90	Drastic Enhancement of X-ray Scattering Contrast between Amorphous and Crystalline Phases of Poly(3-hexylthiophene) at the Sulfur K-Edge. <i>Journal of Physical Chemistry Letters</i> , 2004, 1, 764-769.		5

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91	Critical analysis of self-doping and water-soluble n-type organic semiconductors: structures and mechanisms. Journal of Materials Chemistry C, 0, , .	2.7	3