Sabine Ludwigs

List of Publications by Year
in descending order

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110 papers	6,278 citations	76322 40 h-index	71682 76 g-index
112 all docs	112 docs citations	112 times ranked	7820 citing authors

#	Article	IF	Citations
1	Electrochemistry of Conducting Polymersâ€"Persistent Models and New Concepts. Chemical Reviews, 2010, 110, 4724-4771.	47.7	1,039
2	A Bicontinuous Double Gyroid Hybrid Solar Cell. Nano Letters, 2009, 9, 2807-2812.	9.1	446
3	Self-assembly of functional nanostructures from ABC triblock copolymers. Nature Materials, 2003, 2, 744-747.	27.5	216
4	Anisotropic Charge Transport in Spherulitic Poly(3â€hexylthiophene) Films. Advanced Materials, 2012, 24, 839-844.	21.0	167
5	Block Copolymer Morphologies in Dye-Sensitized Solar Cells: Probing the Photovoltaic Structureâ^'Function Relation. Nano Letters, 2009, 9, 2813-2819.	9.1	163
6	Small contact resistance and high-frequency operation of flexible low-voltage inverted coplanar organic transistors. Nature Communications, 2019, 10, 1119.	12.8	163
7	2D Versus 3D Crystalline Order in Thin Films of Regioregular Poly(3â€hexylthiophene) Oriented by Mechanical Rubbing and Epitaxy. Advanced Functional Materials, 2011, 21, 4047-4057.	14.9	148
8	Segregated versus Mixed Interchain Stacking in Highly Oriented Films of Naphthalene Diimide Bithiophene Copolymers. ACS Nano, 2012, 6, 10319-10326.	14.6	141
9	Quantitative Analysis of Bulk Heterojunction Films Using Linear Absorption Spectroscopy and Solar Cell Performance. Advanced Functional Materials, 2011, 21, 4640-4652.	14.9	137
10	Flexible low-voltage high-frequency organic thin-film transistors. Science Advances, 2020, 6, eaaz5156.	10.3	133
11	Microscopic Mechanisms of Electric-Field-Induced Alignment of Block Copolymer Microdomains. Physical Review Letters, 2002, 89, 135502.	7.8	129
12	Systematic Control of Nucleation Density in Poly(3â€Hexylthiophene) Thin Films. Advanced Functional Materials, 2011, 21, 518-524.	14.9	123
13	Charge Transport Anisotropy in Highly Oriented Thin Films of the Acceptor Polymer P(NDI2ODâ€T2). Advanced Energy Materials, 2014, 4, 1301659.	19.5	116
14	Electric Field Induced Alignment of Concentrated Block Copolymer Solutions. Macromolecules, 2003, 36, 8078-8087.	4.8	108
15	On the Efficiency of Charge Transfer State Splitting in Polymer:Fullerene Solar Cells. Advanced Materials, 2014, 26, 2533-2539.	21.0	106
16	Electrochemically Induced Reversible and Irreversible Coupling of Triarylamines. Journal of Physical Chemistry B, 2012, 116, 30-39.	2.6	95
17	High-Temperature Rubbing: A Versatile Method to Align Ï€-Conjugated Polymers without Alignment Substrate. Macromolecules, 2014, 47, 3871-3879.	4.8	95
18	Triphenylamine and some of its derivatives as versatile building blocks for organic electronic applications. Polymer International, 2019, 68, 589-606.	3.1	91

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19	Phase behavior of linear polystyrene-block-poly(2-vinylpyridine)-block-poly(tert-butyl methacrylate) triblock terpolymers. Polymer, 2003, 44, 6815-6823.	3.8	89
20	Electrically switchable metallic polymer nanoantennas. Science, 2021, 374, 612-616.	12.6	86
21	Freestanding nanowire arrays from soft-etch block copolymer templates. Soft Matter, 2007, 3, 94-98.	2.7	84
22	Combinatorial Mapping of the Phase Behavior of ABC Triblock Terpolymers in Thin Films:Â Experiments. Macromolecules, 2005, 38, 1850-1858.	4.8	72
23	The Next 100 Years of Polymer Science. Macromolecular Chemistry and Physics, 2020, 221, 2000216.	2.2	69
24	High Conductivities of Disordered P3HT Films by an Electrochemical Doping Strategy. Chemistry of Materials, 2020, 32, 6003-6013.	6.7	65
25	Controlled Crystallization of Conjugated Polymer Films from Solution and Solvent Vapor for Polymer Electronics. Advanced Functional Materials, 2017, 27, 1603083.	14.9	63
26	Electrochemical Investigations of the N-Type Semiconducting Polymer P(NDI2OD-T2) and Its Monomer: New Insights in the Reduction Behavior. Journal of Physical Chemistry C, 2015, 119, 22760-22771.	3.1	58
27	Tuning Orientational Order of Highly Aggregating P(NDI2OD-T₂) by Solvent Vapor Annealing and Blade Coating. Macromolecules, 2019, 52, 43-54.	4.8	54
28	A Critical Outlook for the Pursuit of Lower Contact Resistance in Organic Transistors. Advanced Materials, 2022, 34, e2104075.	21.0	53
29	Roadmap to Gigahertz Organic Transistors. Advanced Functional Materials, 2020, 30, 1903812.	14.9	52
30	Solvent-Vapor-Assisted Imprint Lithography. Advanced Materials, 2007, 19, 757-761.	21.0	51
31	Highly Crystalline Films of PCPDTBT with Branched Side Chains by Solvent Vapor Crystallization: Influence on Optoâ€Electronic Properties. Advanced Materials, 2015, 27, 1223-1228.	21.0	51
32	On the Molecular Origin of Charge Separation at the Donorâ€“Acceptor Interface. Advanced Energy Materials, 2018, 8, 1702232.	19.5	51
33	The PCPDTBT Family: Correlations between Chemical Structure, Polymorphism, and Device Performance. Macromolecules, 2017, 50, 1402-1414.	4.8	47
34	Phase Behavior of ABC Triblock Terpolymers in Thin Films:Â Mesoscale Simulations. Macromolecules, 2005, 38, 1859-1867.	4.8	46
35	Structure Formation of Polystyrene-block-poly(Î³-benzyl l-glutamate) in Thin Films. Macromolecules, 2005, 38, 7532-7535.	4.8	46
36	Chemical Doping of Conjugated Polymers with the Strong Oxidant Magic Blue. Advanced Electronic Materials, 2020, 6, 2000249.	5.1	46

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37	Template-Directed Control of Crystal Morphologies. Macromolecular Bioscience, 2007, 7, 152-162.	4.1	44
38	Virus-directed formation of electrocatalytically active nanoparticle-based Co₃O₄ tubes. Nanoscale, 2017, 9, 6334-6345.	5.6	44
39	From Understanding Mechanical Behavior to Curvature Prediction of Humidityâ€Triggered Bilayer Actuators. Advanced Materials, 2021, 33, e2007982.	21.0	43
40	Regioregular Polythiophenes with Alkylthiophene Side Chains. Macromolecules, 2012, 45, 5782-5788.	4.8	41
41	Revealing structure formation in PCPDTBT by optical spectroscopy. Journal of Polymer Science, Part B: Polymer Physics, 2015, 53, 1416-1430.	2.1	41
42	Soft-Etch Mesoporous Hole-Conducting Block Copolymer Templates. ACS Nano, 2010, 4, 962-966.	14.6	40
43	Light-Controlled Morphologies of Self-Assembled Triarylamineâ€“Fullerene Conjugates. ACS Nano, 2015, 9, 2760-2772.	14.6	39
44	Optoelectronic Properties of Hyperbranched Polythiophenes. Journal of Physical Chemistry B, 2012, 116, 154-159.	2.6	38
45	Sub-100 fs charge transfer in a novel donorâ€“acceptorâ€“donor triad organized in a smectic film. Physical Chemistry Chemical Physics, 2012, 14, 273-279.	2.8	38
46	One-Dimensional Swelling of a pH-Dependent Nanostructure Based on ABC Triblock Terpolymers. Macromolecules, 2005, 38, 2376-2382.	4.8	37
47	Alignment of Lamellar Block Copolymers via Electrohydrodynamicâ€Đriven Micropatterning. Advanced Materials, 2008, 20, 3022-3027.	21.0	37
48	Room temperature vacuum-induced ligand removal and patterning of ZnOnanoparticles: from semiconducting films towards printed electronics. Journal of Materials Chemistry, 2010, 20, 874-879.	6.7	37
49	Directed crystallization of poly(3-hexylthiophene) in micrometre channels under confinement and in electric fields. Nanoscale, 2012, 4, 2138.	5.6	37
50	Water- and Ionic-Liquid-Soluble Branched Polythiophenes Bearing Anionic and Cationic Moieties. Journal of the American Chemical Society, 2012, 134, 43-46.	13.7	37
51	Influence of Processing Solvents on Optical Properties and Morphology of a Semicrystalline Low Bandgap Polymer in the Neutral and Charged States. Macromolecules, 2013, 46, 4924-4931.	4.8	36
52	Poly(3-hexylthiophene) revisited â€“ Influence of film deposition on the electrochemical behaviour and energy levels. Electrochimica Acta, 2018, 269, 299-311.	5.2	36
53	Control of gyroid forming block copolymer templates: effects of an electric field and surface topography. Soft Matter, 2010, 6, 670-676.	2.7	34
54	Structural Models of Poly(cyclopentadithiophene-alt-benzothiadiazole) with Branched Side Chains: Impact of a Single Fluorine Atom on the Crystal Structure and Polymorphism of a Conjugated Polymer. Macromolecules, 2015, 48, 3974-3982.	4.8	34

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55	Tuning Aggregation by Regioregularity for High-Performance n-Type P(NDI2OD-T₂) Donorâ€“Acceptor Copolymers. Macromolecules, 2017, 50, 5353-5366.	4.8	34
56	Bioinspired Polymerâ€“Inorganic Hybrid Materials. Advanced Materials, 2006, 18, 2270-2273.	21.0	33
57	Electrochemically Induced Formation of Independent Conductivity Regimes in Polymeric Tetraphenylbenzidine Systems. ChemPhysChem, 2010, 11, 1637-1640.	2.1	33
58	Branched Terthiophenes in Organic Electronics: From Small Molecules to Polymers. Macromolecular Rapid Communications, 2015, 36, 115-137.	3.9	30
59	Design of Soluble Hyperbranched Polythiophenes with Tailorâ€Made Optoelectronic Properties. Macromolecular Rapid Communications, 2009, 30, 1323-1327.	3.9	29
60	Humidity-Controlled Water Uptake and Conductivities in Ion and Electron Mixed Conducting Polythiophene Films. ACS Applied Materials & Interfaces, 2020, 12, 6742-6751.	8.0	29
61	Electrochemical Behavior of Electropolymerized and Chemically Synthesized Hyperbranched Polythiophenes. Journal of Physical Chemistry B, 2010, 114, 10703-10708.	2.6	28
62	Nanocomposites of Sizeâ€Tunable ZnOâ€Nanoparticles and Amphiphilic Hyperbranched Polymers. Macromolecular Rapid Communications, 2009, 30, 579-583.	3.9	26
63	From Isotropic to Anisotropic Conductivities in P(NDI2OD-T₂) by (Electro-)Chemical Doping Strategies. Chemistry of Materials, 2019, 31, 3542-3555.	6.7	26
64	Dithienosilole-based all-conjugated block copolymers synthesized by a combination of quasi-living Kumada and Negishi catalyst-transfer polycondensations. Polymer Chemistry, 2014, 5, 5383-5390.	3.9	25
65	Conductance and spectroscopic mapping of EDOT polymer films upon electrochemical doping. Flexible and Printed Electronics, 2020, 5, 014016.	2.7	25
66	Block Copolymer Micellar Nanoreactors for the Directed Synthesis of ZnO Nanoparticles. Macromolecular Rapid Communications, 2010, 31, 729-734.	3.9	24
67	Enhanced Photogeneration of Polaron Pairs in Neat Semicrystalline Donorâ€“Acceptor Copolymer Films via Direct Excitation of Interchain Aggregates. Journal of Physical Chemistry Letters, 2015, 6, 1196-1203.	4.6	24
68	Enhanced Stability of Rubrene against Oxidation by Partial and Complete Fluorination. Journal of Physical Chemistry C, 2016, 120, 5515-5522.	3.1	24
69	Microstructure and Optoelectronic Properties of P3HT-b-P4VP/PCBM Blends: Impact of PCBM on the Copolymer Self-Assembly. Macromolecules, 2013, 46, 8824-8831.	4.8	22
70	Polythiophenes with Thiophene Side Chain Extensions: Convergent Syntheses and Investigation of Mesoscopic Order. Macromolecules, 2015, 48, 7049-7059.	4.8	22
71	Water-Processable Self-Doped Conducting Polymers via Direct (Hetero)arylation Polymerization. Macromolecules, 2021, 54, 5464-5472.	4.8	22
72	Electropolymerized Three-Dimensional Randomly Branched EDOT-Containing Copolymers. Langmuir, 2013, 29, 15463-15473.	3.5	21

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73	Mixed conductivity of polythiophene-based ionic polymers under controlled conditions. Polymer, 2017, 132, 216-226.	3.8	21
74	Design of conductive crown ether based columnar liquid crystals: impact of molecular flexibility and geometry. Journal of Materials Chemistry C, 2013, 1, 892-901.	5.5	20
75	Electrochemical and optical properties of molecular triads based on triphenylamine, diketopyrrolopyrrole and boron-dipyrromethene. Electrochimica Acta, 2015, 173, 847-859.	5.2	20
76	Semiconducting Polymer Spherulitesâ€"From Fundamentals to Polymer Electronics. Macromolecular Rapid Communications, 2019, 40, e1800601.	3.9	18
77	A Detailed Analysis of Multiple Photoreactions in a Light-Harvesting Molecular Triad with Overlapping Spectra by Utrafast Spectroscopy. Journal of Physical Chemistry C, 2014, 118, 24290-24301.	3.1	17
78	Simultaneous doping and crosslinking of polythiophene films. Polymer Chemistry, 2017, 8, 7351-7359.	3.9	17
79	Compositional Dependence of Li-Ion Conductivity in Garnet-Rich Composite Electrolytes for All-Solid-State Lithium-Ion Batteriesâ€"Toward Understanding the Drawbacks of Ceramic-Rich Composites. ACS Applied Materials & Interfaces, 2021, 13, 31111-31128.	8.0	17
80	In Situ Monitoring of Optical Constants, Conductivity, and Swelling of PEDOT:PSS from Doped to the Fully Neutral State. Macromolecules, 2022, 55, 1600-1608.	4.8	17
81	In situ Electrochemical Monitoring of Selective Etching in Ordered Mesoporous Block-Copolymer Templates. ACS Applied Materials & Interfaces, 2011, 3, 1375-1379.	8.0	16
82	Controlling charge separation and recombination by chemical design in donorâ€"acceptor dyads. Physical Chemistry Chemical Physics, 2016, 18, 18536-18548.	2.8	16
83	Functionalized branched EDOT-terthiophene copolymer films by electropolymerization and post-polymerization â€œclickâ€•reactions. Beilstein Journal of Organic Chemistry, 2015, 11, 335-347.	2.2	15
84	P(NDI2OD-T2) revisited â€“ Aggregation control as key for high performance n-type applications. Synthetic Metals, 2019, 253, 73-87.	3.9	15
85	Electrically switchable metasurface for beam steering using PEDOT polymers. Journal of Optics (United Kingdom), 2020, 22, 124001.	2.2	15
86	A dithiocarbamate anchoring group as a flexible platform for interface engineering. Physical Chemistry Chemical Physics, 2019, 21, 22511-22525.	2.8	14
87	Tuning liquid crystalline phase behaviour in columnar crown ethers by sulfur substituents. Organic Chemistry Frontiers, 2017, 4, 790-803.	4.5	12
88	Electrochemical studies of a new, low-band gap inherently chiral ethylenedioxythiophene-based oligothiophene. Electrochimica Acta, 2018, 284, 513-525.	5.2	12
89	Pushâ€“pull thiophene chromophores for electro-optic applications: from 1D linear to Î²-branched structures. Physical Chemistry Chemical Physics, 2020, 22, 2283-2294.	2.8	12
90	Towards highly conducting bicarbazole redox polymer films with plateau-like conductivities. Journal of Materials Chemistry C, 2020, 8, 15393-15405.	5.5	12

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91	Synthesis and Thin Film Phase Behaviour of Functional Rodâ€Coil Block Copolymers Based on Poly(paraâ€phenylenevinylene) and Poly(lactic acid). Macromolecular Rapid Communications, 2011, 32, 813-819.	3.9	11
92	Unsymmetric Bistable [c2]Daisy Chain Rotaxanes which Combine Two Types of Electroactive Stoppers. European Journal of Organic Chemistry, 2019, 2019, 3421-3432.	2.4	11
93	Branched polythiophenes by Ni-catalyzed Kumada coupling. Polymer Chemistry, 2014, 5, 6824-6833.	3.9	10
94	Electrochemical Manipulation of Aligned Block Copolymer Templates. Macromolecular Rapid Communications, 2020, 41, e1900485.	3.9	10
95	Rigidified Pushâ€“Pull Dyes: Using Chromophore Size, Donor, and Acceptor Units to Tune the Ground State between Neutral and the Cyanine Limit. ChemPlusChem, 2017, 82, 1197-1210.	2.8	8
96	Mixed Ion-Carrier Diffusion in Poly(3-hexyl thiophene)/Perchlorate Electrochemical Systems. Journal of Physical Chemistry C, 2021, 125, 536-545.	3.1	8
97	Achieving 6.7% Efficiency in P3HT/Indeneâ€C₇₀ Bisadduct Solar Cells through the Control of Vertical Volume Fraction Distribution and Optimized Regioâ€Isomer Ratios. Advanced Electronic Materials, 2016, 2, 1600362.	5.1	7
98	Shear alignment and 2D charge transport of tilted smectic liquid crystalline phases â€“ XRD and FET studies. Journal of Materials Chemistry C, 2019, 7, 2615-2624.	5.5	7
99	Impact of the Replacement of a Triphenylamine by a Diphenylmethylamine Unit on the Electrochemical Behavior of Pentaerythritolâ€Based Pushâ€Pull Tetramers. ChemElectroChem, 2019, 6, 4215-4228.	3.4	7
100	How charge trapping affects the conductivity of electrochemically doped poly(3-hexylthiophene) films. Applied Physics Letters, 2021, 119, .	3.3	7
101	Hierarchically Structured Spherulitic Cobalt Hydroxide Carbonate as a Precursor to Ordered Nanostructures of Electrocatalytically Active Co₃O₄. Crystal Growth and Design, 2020, 20, 6407-6420.	3.0	6
102	Hybrid Spintronic Materials from Conducting Polymers with Molecular Quantum Bits. Advanced Functional Materials, 2021, 31, 2006882.	14.9	6
103	V-shaped pyranylidene/triphenylamine-based chromophores with enhanced photophysical, electrochemical and nonlinear optical properties. Materials Advances, 2021, 2, 4255-4263.	5.4	6
104	In Situ Electrochemical Investigations of Inherently Chiral 2,2â€²â€Biindole Architectures with Oligothiophene Terminals. ChemElectroChem, 2021, 8, 3250-3261.	3.4	5
105	Electrochemical Characterization of Redox Probes Confined in 3D Conducting Polymer Networks. Chemistry - A European Journal, 2021, 27, 17255-17263.	3.3	5
106	Voltageâ€Induced Formation of Accumulation Layers at Electrode Interfaces in Organic Solar Cells. Advanced Energy Materials, 2012, 2, 983-991.	19.5	3
107	Single waveguide silicon-organic hybrid modulator. Advances in Radio Science, 0, 15, 141-147.	0.7	3
108	Actuators: From Understanding Mechanical Behavior to Curvature Prediction of Humidityâ€Triggered Bilayer Actuators (Adv. Mater. 9/2021). Advanced Materials, 2021, 33, 2170067.	21.0	1

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109	Electrically Switchable Metasurface for Beam Steering Using PEDOT Polymers. , 2021, , .		1
110	Electrochemical Switching of Mixed Conducting Polymer Films. , 0, , .		0