

Sabine Ludwigs

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

109
papers

5,099
citations

36
h-index

69
g-index

112
ext. papers

5,666
ext. citations

9.4
avg, IF

5.71
L-index

#	Paper	IF	Citations
109	In Situ Monitoring of Optical Constants, Conductivity, and Swelling of PEDOT:PSS from Doped to the Fully Neutral State. <i>Macromolecules</i> , 2022 , 55, 1600-1608	5.5	1
108	Electrochemical Characterization of Redox Probes Confined in 3D Conducting Polymer Networks. <i>Chemistry - A European Journal</i> , 2021 , 27, 17255-17263	4.8	1
107	A Critical Outlook for the Pursuit of Lower Contact Resistance in Organic Transistors. <i>Advanced Materials</i> , 2021 , e2104075	24	12
106	How charge trapping affects the conductivity of electrochemically doped poly(3-hexylthiophene) films. <i>Applied Physics Letters</i> , 2021 , 119, 163301	3.4	0
105	Electrically switchable metallic polymer nanoantennas. <i>Science</i> , 2021 , 374, 612-616	33.3	24
104	Mixed Ion-Carrier Diffusion in Poly(3-hexyl thiophene)/Perchlorate Electrochemical Systems. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 536-545	3.8	3
103	Actuators: From Understanding Mechanical Behavior to Curvature Prediction of Humidity-Triggered Bilayer Actuators (Adv. Mater. 9/2021). <i>Advanced Materials</i> , 2021 , 33, 2170067	24	1
102	Water-Processable Self-Doped Conducting Polymers via Direct (Hetero)arylation Polymerization. <i>Macromolecules</i> , 2021 , 54, 5464-5472	5.5	7
101	In Situ Electrochemical Investigations of Inherently Chiral 2,2'-Biindole Architectures with Oligothiophene Terminals. <i>ChemElectroChem</i> , 2021 , 8, 3250-3261	4.3	2
100	Compositional Dependence of Li-Ion Conductivity in Garnet-Rich Composite Electrolytes for All-Solid-State Lithium-Ion Batteries-Toward Understanding the Drawbacks of Ceramic-Rich Composites. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 31111-31128	9.5	2
99	Hybrid Spintronic Materials from Conducting Polymers with Molecular Quantum Bits. <i>Advanced Functional Materials</i> , 2021 , 31, 2006882	15.6	4
98	From Understanding Mechanical Behavior to Curvature Prediction of Humidity-Triggered Bilayer Actuators. <i>Advanced Materials</i> , 2021 , 33, e2007982	24	18
97	Electrically Switchable Metasurface for Beam Steering Using PEDOT Polymers 2021 ,		1
96	V-shaped pyranilidene/triphenylamine-based chromophores with enhanced photophysical, electrochemical and nonlinear optical properties. <i>Materials Advances</i> , 2021 , 2, 4255-4263	3.3	1
95	Flexible low-voltage high-frequency organic thin-film transistors. <i>Science Advances</i> , 2020 , 6, eaaz5156	14.3	54
94	Conductance and spectroscopic mapping of EDOT polymer films upon electrochemical doping. <i>Flexible and Printed Electronics</i> , 2020 , 5, 014016	3.1	18
93	High Conductivities of Disordered P3HT Films by an Electrochemical Doping Strategy. <i>Chemistry of Materials</i> , 2020 , 32, 6003-6013	9.6	32

92	Humidity-Controlled Water Uptake and Conductivities in Ion and Electron Mixed Conducting Polythiophene Films. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 6742-6751	9.5	18
91	Electrically switchable metasurface for beam steering using PEDOT polymers. <i>Journal of Optics (United Kingdom)</i> , 2020 , 22, 124001	1.7	11
90	Push-pull thiophene chromophores for electro-optic applications: from 1D linear to Ebranched structures. <i>Physical Chemistry Chemical Physics</i> , 2020 , 22, 2283-2294	3.6	7
89	Roadmap to Gigahertz Organic Transistors. <i>Advanced Functional Materials</i> , 2020 , 30, 1903812	15.6	35
88	Electrochemical Manipulation of Aligned Block Copolymer Templates. <i>Macromolecular Rapid Communications</i> , 2020 , 41, e1900485	4.8	7
87	The Next 100 Years of Polymer Science. <i>Macromolecular Chemistry and Physics</i> , 2020 , 221, 2000216	2.6	36
86	Chemical Doping of Conjugated Polymers with the Strong Oxidant Magic Blue. <i>Advanced Electronic Materials</i> , 2020 , 6, 2000249	6.4	24
85	Towards highly conducting bicarbazole redox polymer films with plateau-like conductivities. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 15393-15405	7.1	8
84	Hierarchically Structured Spherulitic Cobalt Hydroxide Carbonate as a Precursor to Ordered Nanostructures of Electrocatalytically Active Co ₃ O ₄ . <i>Crystal Growth and Design</i> , 2020 , 20, 6407-6420	3.5	3
83	Shear alignment and 2D charge transport of tilted smectic liquid crystalline phases [XRD and FET studies. <i>Journal of Materials Chemistry C</i> , 2019 , 7, 2615-2624	7.1	4
82	Impact of the Replacement of a Triphenylamine by a Diphenylmethylamine Unit on the Electrochemical Behavior of Pentaerythritol-Based Push-Pull Tetramers. <i>ChemElectroChem</i> , 2019 , 6, 4214-4228	4.3	4
81	P(NDI2OD-T2) revisited [Aggregation control as key for high performance n-type applications. <i>Synthetic Metals</i> , 2019 , 253, 73-87	3.6	5
80	From Isotropic to Anisotropic Conductivities in P(NDI2OD-T2) by (Electro-)Chemical Doping Strategies. <i>Chemistry of Materials</i> , 2019 , 31, 3542-3555	9.6	18
79	Small contact resistance and high-frequency operation of flexible low-voltage inverted coplanar organic transistors. <i>Nature Communications</i> , 2019 , 10, 1119	17.4	110
78	Unsymmetric Bistable [c2]Daisy Chain Rotaxanes which Combine Two Types of Electroactive Stoppers. <i>European Journal of Organic Chemistry</i> , 2019 , 2019, 3421-3432	3.2	6
77	Triphenylamine and some of its derivatives as versatile building blocks for organic electronic applications. <i>Polymer International</i> , 2019 , 68, 589-606	3.3	49
76	A dithiocarbamate anchoring group as a flexible platform for interface engineering. <i>Physical Chemistry Chemical Physics</i> , 2019 , 21, 22511-22525	3.6	9
75	Tuning Orientational Order of Highly Aggregating P(NDI2OD-T2) by Solvent Vapor Annealing and Blade Coating. <i>Macromolecules</i> , 2019 , 52, 43-54	5.5	31

74	Semiconducting Polymer Spherulites-From Fundamentals to Polymer Electronics. <i>Macromolecular Rapid Communications</i> , 2019 , 40, e1800601	4.8	11
73	Poly(3-hexylthiophene) revisited Influence of film deposition on the electrochemical behaviour and energy levels. <i>Electrochimica Acta</i> , 2018 , 269, 299-311	6.7	23
72	On the Molecular Origin of Charge Separation at the Donor-Acceptor Interface. <i>Advanced Energy Materials</i> , 2018 , 8, 1702232	21.8	45
71	Electrochemical studies of a new, low-band gap inherently chiral ethylenedioxythiophene-based oligothiophene. <i>Electrochimica Acta</i> , 2018 , 284, 513-525	6.7	11
70	The PCPDTBT Family: Correlations between Chemical Structure, Polymorphism, and Device Performance. <i>Macromolecules</i> , 2017 , 50, 1402-1414	5.5	37
69	Virus-directed formation of electrocatalytically active nanoparticle-based CoO tubes. <i>Nanoscale</i> , 2017 , 9, 6334-6345	7.7	39
68	Tuning liquid crystalline phase behaviour in columnar crown ethers by sulfur substituents. <i>Organic Chemistry Frontiers</i> , 2017 , 4, 790-803	5.2	10
67	Rigidified Push-Pull Dyes: Using Chromophore Size, Donor, and Acceptor Units to Tune the Ground State between Neutral and the Cyanine Limit. <i>ChemPlusChem</i> , 2017 , 82, 1197-1210	2.8	5
66	Simultaneous doping and crosslinking of polythiophene films. <i>Polymer Chemistry</i> , 2017 , 8, 7351-7359	4.9	13
65	Mixed conductivity of polythiophene-based ionic polymers under controlled conditions. <i>Polymer</i> , 2017 , 132, 216-226	3.9	16
64	Tuning Aggregation by Regioregularity for High-Performance n-Type P(NDI2OD-T2) Donor-Acceptor Copolymers. <i>Macromolecules</i> , 2017 , 50, 5353-5366	5.5	25
63	Controlled Crystallization of Conjugated Polymer Films from Solution and Solvent Vapor for Polymer Electronics. <i>Advanced Functional Materials</i> , 2017 , 27, 1603083	15.6	41
62	Achieving 6.7% Efficiency in P3HT/Indene-C70 Bisadduct Solar Cells through the Control of Vertical Volume Fraction Distribution and Optimized Regio-Isomer Ratios. <i>Advanced Electronic Materials</i> , 2016 , 2, 1600362	6.4	7
61	Enhanced Stability of Rubrene against Oxidation by Partial and Complete Fluorination. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 5515-5522	3.8	19
60	Controlling charge separation and recombination by chemical design in donor-acceptor dyads. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 18536-48	3.6	13
59	Light-controlled morphologies of self-assembled triarylamine-fullerene conjugates. <i>ACS Nano</i> , 2015 , 9, 2760-72	16.7	35
58	Electrochemical and optical properties of molecular triads based on triphenylamine, diketopyrrolopyrrole and boron-dipyrrromethene. <i>Electrochimica Acta</i> , 2015 , 173, 847-859	6.7	16
57	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. <i>Macromolecules</i> , 2015 , 48, 3974-3982	5.5	28

56	Enhanced Photogeneration of Polaron Pairs in Neat Semicrystalline Donor-Acceptor Copolymer Films via Direct Excitation of Interchain Aggregates. <i>Journal of Physical Chemistry Letters</i> , 2015 , 6, 1196-1203	6.4	19
55	Electrochemical Investigations of the N-Type Semiconducting Polymer P(NDI2OD-T2) and Its Monomer: New Insights in the Reduction Behavior. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 22760-22771	3.8	45
54	Polythiophenes with Thiophene Side Chain Extensions: Convergent Syntheses and Investigation of Mesoscopic Order. <i>Macromolecules</i> , 2015 , 48, 7049-7059	5.5	19
53	Highly crystalline films of PCPDTBT with branched side chains by solvent vapor crystallization: influence on opto-electronic properties. <i>Advanced Materials</i> , 2015 , 27, 1223-8	24	45
52	Branched terthiophenes in organic electronics: from small molecules to polymers. <i>Macromolecular Rapid Communications</i> , 2015 , 36, 115-37	4.8	27
51	Revealing structure formation in PCPDTBT by optical spectroscopy. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2015 , 53, 1416-1430	2.6	37
50	Functionalized branched EDOT-terthiophene copolymer films by electropolymerization and post-polymerization "click"-reactions. <i>Beilstein Journal of Organic Chemistry</i> , 2015 , 11, 335-47	2.5	11
49	Charge Transport Anisotropy in Highly Oriented Thin Films of the Acceptor Polymer P(NDI2OD-T2). <i>Advanced Energy Materials</i> , 2014 , 4, 1301659	21.8	100
48	On the efficiency of charge transfer state splitting in polymer:fullerene solar cells. <i>Advanced Materials</i> , 2014 , 26, 2533-9	24	94
47	A Detailed Analysis of Multiple Photoreactions in a Light-Harvesting Molecular Triad with Overlapping Spectra by Ultrafast Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 24290-24301	3.8	17
46	Dithienosilole-based all-conjugated block copolymers synthesized by a combination of quasi-living Kumada and Negishi catalyst-transfer polycondensations. <i>Polymer Chemistry</i> , 2014 , 5, 5383-5390	4.9	24
45	High-Temperature Rubbing: A Versatile Method to Align π -Conjugated Polymers without Alignment Substrate. <i>Macromolecules</i> , 2014 , 47, 3871-3879	5.5	80
44	Branched polythiophenes by Ni-catalyzed Kumada coupling. <i>Polymer Chemistry</i> , 2014 , 5, 6824-6833	4.9	9
43	Microstructure and Optoelectronic Properties of P3HT-b-P4VP/PCBM Blends: Impact of PCBM on the Copolymer Self-Assembly. <i>Macromolecules</i> , 2013 , 46, 8824-8831	5.5	21
42	Design of conductive crown ether based columnar liquid crystals: impact of molecular flexibility and geometry. <i>Journal of Materials Chemistry C</i> , 2013 , 1, 892-901	7.1	19
41	Influence of Processing Solvents on Optical Properties and Morphology of a Semicrystalline Low Bandgap Polymer in the Neutral and Charged States. <i>Macromolecules</i> , 2013 , 46, 4924-4931	5.5	32
40	Electropolymerized three-dimensional randomly branched EDOT-containing copolymers. <i>Langmuir</i> , 2013 , 29, 15463-73	4	20
39	Anisotropic charge transport in spherulitic poly(3-hexylthiophene) films. <i>Advanced Materials</i> , 2012 , 24, 839-44	24	157

38	Directed crystallization of poly(3-hexylthiophene) in micrometre channels under confinement and in electric fields. <i>Nanoscale</i> , 2012 , 4, 2138-44	7.7	35
37	Segregated versus mixed interchain stacking in highly oriented films of naphthalene diimide bithiophene copolymers. <i>ACS Nano</i> , 2012 , 6, 10319-26	16.7	121
36	Optoelectronic properties of hyperbranched polythiophenes. <i>Journal of Physical Chemistry B</i> , 2012 , 116, 154-9	3.4	35
35	Electrochemically induced reversible and irreversible coupling of triarylaminines. <i>Journal of Physical Chemistry B</i> , 2012 , 116, 30-9	3.4	74
34	Sub-100 fs charge transfer in a novel donor-acceptor-donor triad organized in a smectic film. <i>Physical Chemistry Chemical Physics</i> , 2012 , 14, 273-9	3.6	33
33	Voltage-Induced Formation of Accumulation Layers at Electrode Interfaces in Organic Solar Cells. <i>Advanced Energy Materials</i> , 2012 , 2, 983-991	21.8	3
32	Water- and ionic-liquid-soluble branched polythiophenes bearing anionic and cationic moieties. <i>Journal of the American Chemical Society</i> , 2012 , 134, 43-6	16.4	34
31	Regioregular Polythiophenes with Alkylthiophene Side Chains. <i>Macromolecules</i> , 2012 , 45, 5782-5788	5.5	39
30	Synthesis and thin film phase behaviour of functional rod-coil block copolymers based on poly(para-phenylenevinylene) and poly(lactic acid). <i>Macromolecular Rapid Communications</i> , 2011 , 32, 813-9	4.8	10
29	Systematic Control of Nucleation Density in Poly(3-Hexylthiophene) Thin Films. <i>Advanced Functional Materials</i> , 2011 , 21, 518-524	15.6	110
28	2D Versus 3D Crystalline Order in Thin Films of Regioregular Poly(3-hexylthiophene) Oriented by Mechanical Rubbing and Epitaxy. <i>Advanced Functional Materials</i> , 2011 , 21, 4047-4057	15.6	133
27	Quantitative Analysis of Bulk Heterojunction Films Using Linear Absorption Spectroscopy and Solar Cell Performance. <i>Advanced Functional Materials</i> , 2011 , 21, 4640-4652	15.6	126
26	In situ electrochemical monitoring of selective etching in ordered mesoporous block-copolymer templates. <i>ACS Applied Materials & Interfaces</i> , 2011 , 3, 1375-9	9.5	16
25	Electrochemical behavior of electropolymerized and chemically synthesized hyperbranched polythiophenes. <i>Journal of Physical Chemistry B</i> , 2010 , 114, 10703-8	3.4	26
24	Soft-etch mesoporous hole-conducting block copolymer templates. <i>ACS Nano</i> , 2010 , 4, 962-6	16.7	33
23	Room temperature vacuum-induced ligand removal and patterning of ZnO nanoparticles: from semiconducting films towards printed electronics. <i>Journal of Materials Chemistry</i> , 2010 , 20, 874-879		34
22	Electrochemistry of conducting polymers--persistent models and new concepts. <i>Chemical Reviews</i> , 2010 , 110, 4724-71	68.1	880
21	Control of gyroid forming block copolymer templates: effects of an electric field and surface topography. <i>Soft Matter</i> , 2010 , 6, 670-676	3.6	33

20	Electrochemically induced formation of independent conductivity regimes in polymeric tetraphenylbenzidine systems. <i>ChemPhysChem</i> , 2010 , 11, 1637-40	3.2	30
19	Block Copolymer Micellar Nanoreactors for the Directed Synthesis of ZnO Nanoparticles. <i>Macromolecular Rapid Communications</i> , 2010 , 31, 729-34	4.8	23
18	Nanocomposites of Size-Tunable ZnO-Nanoparticles and Amphiphilic Hyperbranched Polymers. <i>Macromolecular Rapid Communications</i> , 2009 , 30, 579-83	4.8	24
17	Design of soluble hyperbranched polythiophenes with tailor-made optoelectronic properties. <i>Macromolecular Rapid Communications</i> , 2009 , 30, 1323-7	4.8	28
16	A bicontinuous double gyroid hybrid solar cell. <i>Nano Letters</i> , 2009 , 9, 2807-12	11.5	392
15	Block copolymer morphologies in dye-sensitized solar cells: probing the photovoltaic structure-function relation. <i>Nano Letters</i> , 2009 , 9, 2813-9	11.5	156
14	Alignment of Lamellar Block Copolymers via Electrohydrodynamic-Driven Micropatterning. <i>Advanced Materials</i> , 2008 , 20, 3022-3027	24	36
13	Solvent-Vapor-Assisted Imprint Lithography. <i>Advanced Materials</i> , 2007 , 19, 757-761	24	46
12	Template-directed control of crystal morphologies. <i>Macromolecular Bioscience</i> , 2007 , 7, 152-62	5.5	36
11	Freestanding nanowire arrays from soft-etch block copolymer templates. <i>Soft Matter</i> , 2006 , 3, 94-98	3.6	78
10	Bioinspired Polymer-Inorganic Hybrid Materials. <i>Advanced Materials</i> , 2006 , 18, 2270-2273	24	32
9	Phase Behavior of ABC Triblock Terpolymers in Thin Films: Mesoscale Simulations. <i>Macromolecules</i> , 2005 , 38, 1859-1867	5.5	46
8	Structure Formation of Polystyrene-block-poly(L-benzyl l-glutamate) in Thin Films. <i>Macromolecules</i> , 2005 , 38, 7532-7535	5.5	44
7	Combinatorial Mapping of the Phase Behavior of ABC Triblock Terpolymers in Thin Films: Experiments. <i>Macromolecules</i> , 2005 , 38, 1850-1858	5.5	68
6	One-Dimensional Swelling of a pH-Dependent Nanostructure Based on ABC Triblock Terpolymers. <i>Macromolecules</i> , 2005 , 38, 2376-2382	5.5	36
5	Phase behavior of linear polystyrene-block-poly(2-vinylpyridine)-block-poly(tert-butyl methacrylate) triblock terpolymers. <i>Polymer</i> , 2003 , 44, 6815-6823	3.9	85
4	Self-assembly of functional nanostructures from ABC triblock copolymers. <i>Nature Materials</i> , 2003 , 2, 744-7	27	208
3	Electric Field Induced Alignment of Concentrated Block Copolymer Solutions. <i>Macromolecules</i> , 2003 , 36, 8078-8087	5.5	98

- 2 Microscopic mechanisms of electric-field-induced alignment of block copolymer microdomains. *Physical Review Letters*, **2002**, 89, 135502 7.4 118
- 1 Single waveguide silicon-organic hybrid modulator. *Advances in Radio Science*, 15, 141-147 3