Martin Heeney

List of Publications by Citations

337 papers	25,793 citations	84 h-index	152 g-index
375 ext. papers	27,831 ext. citations	11.1 avg, IF	6.8 L-index

#	Paper	IF	Citations
337	Liquid-crystalline semiconducting polymers with high charge-carrier mobility. *Nature Materials*, **2006**, 5, 328-33	27	1836
336	n-Type organic semiconductors in organic electronics. *Advanced Materials*, **2010**, 22, 3876-92	24	963
335	Thieno[3,2-b]thiophene-diketopyrrolopyrrole-containing polymers for high-performance organic field-effect transistors and organic photovoltaic devices. *Journal of the American Chemical Society*, **2011**, 133, 3272-5	16.4	809
334	Charge carrier formation in polythiophene/fullerene blend films studied by transient absorption spectroscopy. *Journal of the American Chemical Society*, **2008**, 130, 3030-42	16.4	576
333	High-performance ambipolar diketopyrrolopyrrole-thieno[3,2-b]thiophene copolymer field-effect transistors with balanced hole and electron mobilities. *Advanced Materials*, **2012**, 24, 647-52	24	488
332	Influence of blend microstructure on bulk heterojunction organic photovoltaic performance. *Chemical Society Reviews*, **2011**, 40, 1185-99	58.5	463
331	Indacenodithiophene semiconducting polymers for high-performance, air-stable transistors. *Journal of the American Chemical Society*, **2010**, 132, 11437-9	16.4	463
330	An Alkylated Indacenodithieno[3,2-b]thiophene-Based Nonfullerene Acceptor with High Crystallinity Exhibiting Single Junction Solar Cell Efficiencies Greater than 13% with Low Voltage Losses. *Advanced Materials*, **2018**, 30, 1705209	24	399
329	Fullerene crystallisation as a key driver of charge separation in polymer/fullerene bulk heterojunction solar cells. *Chemical Science*, **2012**, 3, 485-492	9.4	391
328	Molecular origin of high field-effect mobility in an indacenodithiophene-benzothiadiazole copolymer. *Nature Communications*, **2013**, 4, 2238	17.4	384
327	Semiconducting Thienothiophene Copolymers: Design, Synthesis, Morphology, and Performance in Thin-Film Organic Transistors. *Advanced Materials*, **2009**, 21, 1091-1109	24	382
326	Bimolecular Crystals of Fullerenes in Conjugated Polymers and the Implications of Molecular Mixing for Solar Cells. *Advanced Functional Materials*, **2009**, 19, 1173-1179	15.6	373
325	Recent Progress in High-Mobility Organic Transistors: A Reality Check. *Advanced Materials*, **2018**, 30, e1801079	24	358
324	Molecular packing of high-mobility diketo pyrrolo-pyrrole polymer semiconductors with branched alkyl side chains. *Journal of the American Chemical Society*, **2011**, 133, 15073-84	16.4	353
323	High-Performance Polymer-Small Molecule Blend Organic Transistors. *Advanced Materials*, **2009**, 21, 1166-1171	24	326
322	Stable polythiophene semiconductors incorporating thieno[2,3-b]thiophene. *Journal of the American Chemical Society*, **2005**, 127, 1078-9	16.4	321
321	X-ray scattering study of thin films of poly(2,5-bis(3-alkylthiophen-2-yl)thieno[3,2-b]thiophene). *Journal of the American Chemical Society*, **2007**, 129, 3226-37	16.4	317

320	Regioregular poly(3-hexyl)selenophene: a low band gap organic hole transporting polymer. *Chemical Communications*, **2007**, 5061-3	5.8	298
319	Critical Role of Side-Chain Attachment Density on the Order and Device Performance of Polythiophenes. *Macromolecules*, **2007**, 40, 7960-7965	5.5	297
318	A selenophene-based low-bandgap donor-acceptor polymer leading to fast ambipolar logic. *Advanced Materials*, **2012**, 24, 1558-65	24	288
317	Charge-Transport Anisotropy Due to Grain Boundaries in Directionally Crystallized Thin Films of Regioregular Poly(3-hexylthiophene). *Advanced Materials*, **2009**, 21, 1568-1572	24	286
316	2D coherent charge transport in highly ordered conducting polymers doped by solid state diffusion. *Nature Materials*, **2016**, 15, 896-902	27	268
315	High Carrier Mobility Polythiophene Thin Films: Structure Determination by Experiment and Theory. *Advanced Materials*, **2007**, 19, 833-837	24	254
314	Molecular-weight dependence of interchain polaron delocalization and exciton bandwidth in high-mobility conjugated polymers. *Physical Review B*, **2006**, 74,	3.3	244
313	Tuning the properties of polymer bulk heterojunction solar cells by adjusting fullerene size to control intercalation. *Nano Letters*, **2009**, 9, 4153-7	11.5	235
312	The Effect of Poly(3-hexylthiophene) Molecular Weight on Charge Transport and the Performance of Polymer:Fullerene Solar Cells. *Advanced Functional Materials*, **2008**, 18, 2373-2380	15.6	233
311	The impact of molecular weight on microstructure and charge transport in semicrystalline polymer semiconductors poly(3-hexylthiophene), a model study. *Progress in Polymer Science*, **2013**, 38, 1978-1989	29.6	219
310	Undoped polythiophene field-effect transistors with mobility of 1cm2V1s1. *Applied Physics Letters*, **2007**, 91, 243512	3.4	210
309	Solution-processed small molecule-polymer blend organic thin-film transistors with hole mobility greater than 5 cm2/Vs. *Advanced Materials*, **2012**, 24, 2441-6	24	202
308	Hybridization of Local Exciton and Charge-Transfer States Reduces Nonradiative Voltage Losses in Organic Solar Cells. *Journal of the American Chemical Society*, **2019**, 141, 6362-6374	16.4	188
307	Polymer-fullerene miscibility: a metric for screening new materials for high-performance organic solar cells. *Journal of the American Chemical Society*, **2012**, 134, 15869-79	16.4	183
306	Solution-processed organic transistors based on semiconducting blends. *Journal of Materials Chemistry*, **2010**, 20, 2562		181
305	Correlations between mechanical and electrical properties of polythiophenes. *ACS Nano*, **2010**, 4, 7538-44	16.7	178
304	A Simple n-Dopant Derived from Diquat Boosts the Efficiency of Organic Solar Cells to 18.3%. *ACS Energy Letters*, **2020**, 5, 3663-3671	20.1	175
303	High mobility ambipolar charge transport in polyselenophene conjugated polymers. *Advanced Materials*, **2010**, 22, 2371-5	24	172

302	Influence of Backbone Fluorination in Regioregular Poly(3-alkyl-4-fluoro)thiophenes. *Journal of the American Chemical Society*, **2015**, 137, 6866-79	16.4	166
301	Copper(I) Thiocyanate (CuSCN) Hole-Transport Layers Processed from Aqueous Precursor Solutions and Their Application in Thin-Film Transistors and Highly Efficient Organic and Organometal Halide Perovskite Solar Cells. *Advanced Functional Materials*, **2017**, 27, 1701818	15.6	159
300	Low band gap selenophene□diketopyrrolopyrrole polymers exhibiting high and balanced ambipolar performance in bottom-gate transistors. *Chemical Science*, **2012**, 3, 181-185	9.4	158
299	Beyond the metal-insulator transition in polymer electrolyte gated polymer field-effect transistors. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 11834-7	11.5	155
298	Indacenodithiophene-co-benzothiadiazole Copolymers for High Performance Solar Cells or Transistors via Alkyl Chain Optimization. *Macromolecules*, **2011**, 44, 6649-6652	5.5	152
297	On the role of intermixed phases in organic photovoltaic blends. *Energy and Environmental Science*, **2013**, 6, 2756	35.4	150
296	Anisotropy of Charge Transport in a Uniaxially Aligned and Chain-Extended, High-Mobility, Conjugated Polymer Semiconductor. *Advanced Functional Materials*, **2011**, 21, 932-940	15.6	150
295	Systematic improvement in charge carrier mobility of air stable triarylamine copolymers. *Journal of the American Chemical Society*, **2009**, 131, 10814-5	16.4	148
294	Studies of Highly Regioregular Poly(3-hexylselenophene) for Photovoltaic Applications. *Advanced Materials*, **2007**, 19, 4544-4547	24	147
293	Controlling the orientation of terraced nanoscale "ribbons" of a poly(thiophene) semiconductor. *ACS Nano*, **2009**, 3, 780-7	16.7	145
292	Influence of Molecular Weight Distribution on the Gelation of P3HT and Its Impact on the Photovoltaic Performance. *Macromolecules*, **2009**, 42, 4661-4666	5.5	145
291	Thiophene and Selenophene Copolymers Incorporating Fluorinated Phenylene Units in the Main Chain: Synthesis, Characterization, and Application in Organic Field-Effect Transistors. *Chemistry of Materials*, **2005**, 17, 6567-6578	9.6	145
290	Small Molecule/Polymer Blend Organic Transistors with Hole Mobility Exceeding 13 cm(2) V(-1) s(-1). *Advanced Materials*, **2016**, 28, 7791-8	24	141
289	Transient Optoelectronic Analysis of Charge Carrier Losses in a Selenophene/Fullerene Blend Solar Cell. *Journal of Physical Chemistry C*, **2011**, 115, 5947-5957	3.8	141
288	Fused dithienogermolodithiophene low band gap polymers for high-performance organic solar cells without processing additives. *Journal of the American Chemical Society*, **2013**, 135, 2040-3	16.4	135
287	Room-temperature fabrication of ultrathin oxide gate dielectrics for low-voltage operation of organic field-effect transistors. *Advanced Materials*, **2011**, 23, 971-4	24	131
286	Electrochemical doping in electrolyte-gated polymer transistors. *Journal of the American Chemical Society*, **2007**, 129, 14367-71	16.4	131
285	Significant dependence of morphology and charge carrier mobility on substrate surface chemistry in high performance polythiophene semiconductor films. *Applied Physics Letters*, **2007**, 90, 062117	3.4	125

284	Silaindacenodithiophene Semiconducting Polymers for Efficient Solar Cells and High-Mobility Ambipolar Transistors *Chemistry of Materials*, **2011**, 23, 768-770	9.6	120
283	Activated singlet exciton fission in a semiconducting polymer. *Journal of the American Chemical Society*, **2013**, 135, 12747-54	16.4	119
282	Acceptor energy level control of charge photogeneration in organic donor/acceptor blends. *Journal of the American Chemical Society*, **2010**, 132, 12919-26	16.4	119
281	Toward Stretchable Self-Powered Sensors Based on the Thermoelectric Response of PEDOT:PSS/Polyurethane Blends. *Advanced Functional Materials*, **2018**, 28, 1704285	15.6	119
280	Air-stable and high-mobility n-channel organic transistors based on small-molecule/polymer semiconducting blends. *Advanced Materials*, **2012**, 24, 3205-11	24	116
279	High mobility field-effect transistors with versatile processing from a small-molecule organic semiconductor. *Advanced Materials*, **2013**, 25, 4352-7	24	116
278	High-Efficiency Organic Photovoltaic Cells Based on the Solution-Processable Hole Transporting Interlayer Copper Thiocyanate (CuSCN) as a Replacement for PEDOT:PSS. *Advanced Energy Materials*, **2015**, 5, 1401529	21.8	115
277	Use of X-ray diffraction, molecular simulations, and spectroscopy to determine the molecular packing in a polymer-fullerene bimolecular crystal. *Advanced Materials*, **2012**, 24, 6071-9	24	113
276	The Influence of Film Morphology in High-Mobility Small-Molecule:Polymer Blend Organic Transistors. *Advanced Functional Materials*, **2010**, 20, 2330-2337	15.6	110
275	Influence of Molecular Design on the Field-Effect Transistor Characteristics of Terthiophene Polymers. *Chemistry of Materials*, **2005**, 17, 1381-1385	9.6	110
274	The Effect of Interfacial Roughness on the Thin Film Morphology and Charge Transport of High-Performance Polythiophenes. *Advanced Functional Materials*, **2008**, 18, 742-750	15.6	107
273	Organic bulk heterojunction solar cells using poly(2,5-bis(3-tetradecyllthiophen-2-yl)thieno[3,2,-b]thiophene). *Applied Physics Letters*, **2008**, 92, 113309	3.4	106
272	Remarkable Enhancement of the Hole Mobility in Several Organic Small-Molecules, Polymers, and Small-Molecule:Polymer Blend Transistors by Simple Admixing of the Lewis Acid p-Dopant B(CF). *Advanced Science*, **2018**, 5, 1700290	13.6	104
271	Microwave-assisted synthesis of polythiophenes via the Stille coupling. *Synthetic Metals*, **2005**, 148, 195-198	3.88	104
270	A Novel Alkylated Indacenodithieno[3,2-b]thiophene-Based Polymer for High-Performance Field-Effect Transistors. *Advanced Materials*, **2016**, 28, 3922-7	24	100
269	Doping of Conjugated Polythiophenes with Alkyl Silanes. *Advanced Functional Materials*, **2009**, 19, 1906-1911	13.61	98
268	Molecular Basis of Mesophase Ordering in a Thiophene-Based Copolymer. *Macromolecules*, **2008**, 41, 5709-5715	5.5	97
267	Lamination method for the study of interfaces in polymeric thin film transistors. *Journal of the American Chemical Society*, **2004**, 126, 13928-9	16.4	96

266	Highly Efficient Patterning of Organic Single-Crystal Transistors from the Solution Phase. *Advanced Materials*, **2008**, 20, 4044-4048	24	93
265	Polaron Localization at Interfaces in High-Mobility Microcrystalline Conjugated Polymers. *Advanced Materials*, **2009**, 21, 3759-3763	24	92
264	Polymerisable liquid crystalline organic semiconductors and their fabrication in organic field effect transistors. *Journal of Materials Chemistry*, **2003**, 13, 2436		92
263	Effect of Systematically Tuning Conjugated Donor Polymer Lowest Unoccupied Molecular Orbital Levels via Cyano Substitution on Organic Photovoltaic Device Performance. *Chemistry of Materials*, **2016**, 28, 5110-5120	9.6	91
262	Comparison of Methods for Determining the Mechanical Properties of Semiconducting Polymer Films for Stretchable Electronics. *ACS Applied Materials & Interfaces*, **2017**, 9, 8855-8862	9.5	90
261	Factors Governing Intercalation of Fullerenes and Other Small Molecules Between the Side Chains of Semiconducting Polymers Used in Solar Cells. *Advanced Energy Materials*, **2012**, 2, 1208-1217	21.8	90
260	Photovoltaic and field effect transistor performance of selenophene and thiophene diketopyrrolopyrrole co-polymers with dithienothiophene. *Journal of Materials Chemistry*, **2012**, 22, 12817		90
259	Ambipolar Field-Effect Transistors Based on Solution-Processable Blends of Thieno[2,3-b]thiophene Terthiophene Polymer and Methanofullerenes. *Advanced Materials*, **2005**, 17, 2608-2612	24	89
258	Influence of side-chain regiochemistry on the transistor performance of high-mobility, all-donor polymers. *Journal of the American Chemical Society*, **2014**, 136, 15154-7	16.4	88
257	Thermal and structural characteristics of oligo(3-hexylthiophene)s (3HT)n, n = 4-36. *Journal of the American Chemical Society*, **2013**, 135, 13699-709	16.4	88
256	Effect of the End Group of Regioregular Poly(3-hexylthiophene) Polymers on the Performance of Polymer/Fullerene Solar Cells. *Journal of Physical Chemistry C*, **2007**, 111, 8137-8141	3.8	87
255	Understanding the Influence of Morphology on Poly(3-hexylselenothiophene):PCBM Solar Cells. *Macromolecules*, **2010**, 43, 1169-1174	5.5	86
254	Polyterthiophenes as Donors for Polymer Solar Cells. *Advanced Functional Materials*, **2007**, 17, 1371-1376	15.6	86
253	Role of Molecular Weight Distribution on Charge Transport in Semiconducting Polymers. *Macromolecules*, **2014**, 47, 7151-7157	5.5	82
252	Influence of Phase Segregation on Recombination Dynamics in Organic Bulk-Heterojunction Solar Cells. *Advanced Functional Materials*, **2011**, 21, 1687-1692	15.6	82
251	Enabling high-mobility, ambipolar charge-transport in a DPP-benzotriazole copolymer by side-chain engineering. *Chemical Science*, **2015**, 6, 6949-6960	9.4	81
250	A low band gap co-polymer of dithienogermole and 2,1,3-benzothiadiazole by Suzuki polycondensation and its application in transistor and photovoltaic cells. *Journal of Materials Chemistry*, **2011**, 21, 16257		81
249	Singlet Exciton Lifetimes in Conjugated Polymer Films for Organic Solar Cells. *Polymers*, **2016**, 8,	4.5	81

248	Alkylated Selenophene-Based Ladder-Type Monomers via a Facile Route for High-Performance Thin-Film Transistor Applications. *Journal of the American Chemical Society*, **2017**, 139, 8552-8561	16.4	80
247	Sequential Deposition of Organic Films with Eco-Compatible Solvents Improves Performance and Enables Over 12%-Efficiency Nonfullerene Solar Cells. *Advanced Materials*, **2019**, 31, e1808153	24	80
246	Diseleno[3,2-b:2?,3?-d]selenophenes: Diseleno[3,2-b:2?,3?-d]selenophene-Containing High-Mobility Conjugated Polymer for Organic Field-Effect Transistors (Adv. Sci. 13/2019). *Advanced Science*, **2019**, 6, 1970080	13.6	78
245	Relative importance of polaron activation and disorder on charge transport in high-mobility conjugated polymer field-effect transistors. *Physical Review B*, **2007**, 76,	3.3	78
244	Alkylidene Fluorene Liquid Crystalline Semiconducting Polymers for Organic Field Effect Transistor Devices. *Macromolecules*, **2004**, 37, 5250-5256	5.5	75
243	"Fibonacci© route" to regioregular oligo(3-hexylthiophene)s. *Journal of the American Chemical Society*, **2013**, 135, 13695-8	16.4	73
242	Influence of the heteroatom on the optoelectronic properties and transistor performance of soluble thiophene-, selenophene- and tellurophene-vinylene copolymers. *Chemical Science*, **2016**, 7, 1093-1099	9.4	72
241	Cyano substituted benzothiadiazole: a novel acceptor inducing n-type behaviour in conjugated polymers. *Journal of Materials Chemistry C*, **2015**, 3, 265-275	7.1	71
240	Domain Compositions and Fullerene Aggregation Govern Charge Photogeneration in Polymer/Fullerene Solar Cells. *Advanced Energy Materials*, **2014**, 4, 1400116	21.8	70
239	The phase behavior of a polymer-fullerene bulk heterojunction system that contains bimolecular crystals. *Journal of Polymer Science, Part B: Polymer Physics*, **2011**, 49, 499-503	2.6	70
238	Structural characterisation of a red phthalocyanine. *Chemical Communications*, **2003**, 2064-5	5.8	70
237	Microstructural origin of high mobility in high-performance poly(thieno-thiophene) thin-film transistors. *Advanced Materials*, **2010**, 22, 697-701	24	69
236	Natures of optical absorption transitions and excitation energy dependent photostability of diketopyrrolopyrrole (DPP)-based photovoltaic copolymers. *Energy and Environmental Science*, **2015**, 8, 3222-3232	35.4	68
235	Effects of Confinement on Microstructure and Charge Transport in High Performance Semicrystalline Polymer Semiconductors. *Advanced Functional Materials*, **2013**, 23, 2091-2098	15.6	68
234	A close look at charge generation in polymer:fullerene blends with microstructure control. *Journal of the American Chemical Society*, **2015**, 137, 2908-18	16.4	68
233	Alkyl Chain Extension as a Route to Novel Thieno[3,2-b]thiophene Flanked Diketopyrrolopyrrole Polymers for Use in Organic Solar Cells and Field Effect Transistors. *Macromolecules*, **2013**, 46, 5961-5967	5.5	67
232	Continuous Synthesis of Device-Grade Semiconducting Polymers in Droplet-Based Microreactors. *Advanced Functional Materials*, **2013**, 23, 2123-2129	15.6	67
231	High-performance organic integrated circuits based on solution processable polymer-small molecule blends. *Applied Physics Letters*, **2008**, 93, 253301	3.4	67

230	Facile infiltration of semiconducting polymer into mesoporous electrodes for hybrid solar cells. *Energy and Environmental Science*, **2011**, 4, 3051	35.4	65
229	Effects of the surface roughness of plastic-compatible inorganic dielectrics on polymeric thin film transistors. *Applied Physics Letters*, **2007**, 90, 233508	3.4	63
228	Charge photogeneration in polythiophene-perylene diimide blend films. *Chemical Communications*, **2009**, 5445-7	5.8	62
227	Effects of a heavy atom on molecular order and morphology in conjugated polymer:fullerene photovoltaic blend thin films and devices. *ACS Nano*, **2012**, 6, 9646-56	16.7	61
226	Photoinduced carrier generation and decay dynamics in intercalated and non-intercalated polymer:fullerene bulk heterojunctions. *ACS Nano*, **2011**, 5, 5635-46	16.7	61
225	Influence of Ion Induced Local Coulomb Field and Polarity on Charge Generation and Efficiency in Poly(3-Hexylthiophene)-Based Solid-State Dye-Sensitized Solar Cells. *Advanced Functional Materials* , **2011**, 21, 2571-2579	15.6	61
224	Thiophene fluorination to enhance photovoltaic performance in low band gap donor-acceptor polymers. *Chemical Communications*, **2012**, 48, 11130-2	5.8	60
223	Electronic Structure and Charge-Transport Properties of Polythiophene Chains Containing Thienothiophene Units: A Joint Experimental and Theoretical Study. *Chemistry of Materials*, **2007**, 19, 4949-4956	9.6	60
222	Hexyl-substituted oligothiophenes with a central tetrafluorophenylene unit: crystal engineering of planar structures for p-type organic semiconductors. *Chemical Communications*, **2005**, 1465-7	5.8	58
221	Carborane-Induced Excimer Emission of Severely Twisted Bis-o-Carboranyl Chrysene. *Angewandte Chemie - International Edition*, **2018**, 57, 10640-10645	16.4	57
220	Thioalkyl-Substituted Benzothiadiazole Acceptors: Copolymerization with Carbazole Affords Polymers with Large Stokes Shifts and High Solar Cell Voltages. *Macromolecules*, **2014**, 47, 2279-2288	5.5	57
219	Entanglements in marginal solutions: a means of tuning pre-aggregation of conjugated polymers with positive implications for charge transport. *Journal of Materials Chemistry C*, **2015**, 3, 7394-7404	7.1	56
218	Material Crystallinity as a Determinant of Triplet Dynamics and Oxygen Quenching in Donor Polymers for Organic Photovoltaic Devices. *Advanced Functional Materials*, **2014**, 24, 1474-1482	15.6	56
217	Local charge trapping in conjugated polymers resolved by scanning Kelvin probe microscopy. *Physical Review Letters*, **2009**, 103, 256803	7.4	56
216	Charge Photogeneration in Low Band Gap Polyselenophene/Fullerene Blend Films. *Journal of Physical Chemistry C*, **2010**, 114, 8068-8075	3.8	55
215	High mobility p-channel organic field effect transistors on flexible substrates using a polymer-small molecule blend. *Synthetic Metals*, **2009**, 159, 2365-2367	3.6	55
214	In-Plane Liquid Crystalline Texture of High-Performance Thienothiophene Copolymer Thin Films. *Advanced Functional Materials*, **2010**, 20, 4098-4106	15.6	55
213	Influence of the Electron Deficient Co-Monomer on the Optoelectronic Properties and Photovoltaic Performance of Dithienogermole-based Co-Polymers. *Advanced Functional Materials*, **2014**, 24, 678-687	15.6	54

212	Analysis of charge photogeneration as a key determinant of photocurrent density in polymer: fullerene solar cells. *Advanced Materials*, **2010**, 22, 5287-91	24	54
211	Additive-assisted supramolecular manipulation of polymer:fullerene blend phase morphologies and its influence on photophysical processes. *Materials Horizons*, **2014**, 1, 270-279	14.4	53
210	Distorted asymmetric cubic nanostructure of soluble fullerene crystals in efficient polymer:fullerene solar cells. *ACS Nano*, **2009**, 3, 2557-62	16.7	53
209	Suzuki route to regioregular polyalkylthiophenes using Ir-catalysed borylation to make the monomer, and Pd complexes of bulky phosphanes as coupling catalysts for polymerisation. *Tetrahedron Letters*, **2006**, 47, 5143-5146	2	53
208	4-Hexylbithieno[3,2-b:2□□e]pyridine:□An Efficient Electron-Accepting Unit in Fluorene and Indenofluorene Copolymers for Light-Emitting Devices. *Macromolecules*, **2004**, 37, 709-715	5.5	53
207	The Impact of Molecular p-Doping on Charge Transport in High-Mobility Small-Molecule/Polymer Blend Organic Transistors. *Advanced Electronic Materials*, **2018**, 4, 1700464	6.4	52
206	Air-stable solution-processed hybrid transistors with hole and electron mobilities exceeding 2 cm2 V-1 s-1. *Advanced Materials*, **2010**, 22, 3598-602	24	52
205	Phthalocyaninodehydroannulenes. *Chemistry - A European Journal*, **2000**, 6, 3958-67	4.8	52
204	Importance of spin-orbit interaction for the electron spin relaxation in organic semiconductors. *Physical Review Letters*, **2013**, 110, 216602	7.4	50
203	Radical ion pair mediated triplet formation in polymer-fullerene blend films. *Chemical Communications*, **2006**, 3939-41	5.8	50
202	Germaindacenodithiophene based low band gap polymers for organic solar cells. *Chemical Communications*, **2012**, 48, 2955-7	5.8	49
201	Elucidating the role of hyperfine interactions on organic magnetoresistance using deuterated aluminium tris(8-hydroxyquinoline). *Physical Review B*, **2009**, 80,	3.3	49
200	Addition of the Lewis Acid Zn(C F) Enables Organic Transistors with a Maximum Hole Mobility in Excess of 20 cm V s. *Advanced Materials*, **2019**, 31, e1900871	24	48
199	An Air-Stable Semiconducting Polymer Containing Dithieno[3,2-b:2Ǫ3Ɵd]arsole. *Angewandte Chemie - International Edition*, **2016**, 55, 7148-51	16.4	48
198	Using Molecular Design to Increase Hole Transport: Backbone Fluorination in the Benchmark Material Poly(2,5-bis(3-alkylthiophen-2-yl)thieno[3,2-b]-thiophene (pBTTT). *Advanced Functional Materials*, **2015**, 25, 7038-7048	15.6	47
197	A Systematic Approach to the Design Optimization of Light-Absorbing Indenofluorene Polymers for Organic Photovoltaics. *Advanced Energy Materials*, **2012**, 2, 260-265	21.8	47
196	The influence of microstructure on charge separation dynamics in organic bulk heterojunction materials for solar cell applications. *Journal of Materials Chemistry A*, **2014**, 2, 6218-6230	13	46
195	An alignable fluorene thienothiophene copolymer with deep-blue electroluminescent emission at 410 nm. *Chemical Communications*, **2008**, 1079-81	5.8	44

194	Influence of source-drain electric field on mobility and charge transport in organic field-effect transistors. *Journal of Applied Physics*, **2007**, 102, 044503	2.5	44
193	Doping of Large Ionization Potential Indenopyrazine Polymers via Lewis Acid Complexation with Tris(pentafluorophenyl)borane: A Simple Method for Improving the Performance of Organic Thin-Film Transistors. *Chemistry of Materials*, **2016**, 28, 8016-8024	9.6	44
192	Conjugated Copolymers of Vinylene Flanked Naphthalene Diimide. *Macromolecules*, **2016**, 49, 6384-6393	5.5	42
191	Bulk Heterojunction Materials Composed of Poly(2,5-bis(3-tetradecylthiophen-2-yl)thieno[3,2-b]thiophene): Ultrafast Electron Transfer and Carrier Recombination *Journal of Physical Chemistry C*, **2008**, 112, 7853-7857	3.8	42
190	Structural and Electronic Effects of 1,3,4-Thiadiazole Units Incorporated into Polythiophene Chains. *Macromolecules*, **2007**, 40, 6585-6593	5.5	42
189	Tail state limited photocurrent collection of thick photoactive layers in organic solar cells. *Nature Communications*, **2019**, 10, 5159	17.4	41
188	Germanium- and Silicon-Substituted Donor–Acceptor Type Copolymers: Effect of the Bridging Heteroatom on Molecular Packing and Photovoltaic Device Performance. *Advanced Energy Materials*, **2014**, 4, 1400527	21.8	41
187	Synthesis, Characterization, and Field Effect Transistor Properties of Regioregular Poly(3-alkyl-2,5-selenylenevinylene). *Macromolecules*, **2011**, 44, 5194-5199	5.5	41
186	Solid-state processing of organic semiconductors. *Advanced Materials*, **2010**, 22, 3942-7	24	41
185	The influence of polymer purification on the efficiency of poly(3-hexylthiophene):fullerene organic solar cells. *Scientific Reports*, **2016**, 6, 23651	4.9	40
184	Alternating 5,5-Dimethylcyclopentadiene and Diketopyrrolopyrrole Copolymer Prepared at Room Temperature for High Performance Organic Thin-Film Transistors. *Journal of the American Chemical Society*, **2017**, 139, 8094-8097	16.4	39
183	Increased Exciton Dipole Moment Translates into Charge-Transfer Excitons in Thiophene-Fluorinated Low-Bandgap Polymers for Organic Photovoltaic Applications. *Chemistry of Materials*, **2015**, 27, 7934-7944	9.6	39
182	Comparative Optoelectronic Study between Copolymers of Peripherally Alkylated Dithienosilole and Dithienogermole. *Macromolecules*, **2012**, 45, 735-742	5.5	39
181	Percolation behaviour in high mobility p-channel polymer/small-molecule blend organic field-effect transistors. *Organic Electronics*, **2011**, 12, 143-147	3.5	39
180	Synthesis and Exciton Dynamics of Triplet Sensitized Conjugated Polymers. *Journal of the American Chemical Society*, **2015**, 137, 10383-90	16.4	38
179	Synthesis and characterization of fused pyrrolo[3,2-d:4,5-d′]bisthiazole-containing polymers. *Organic Letters*, **2010**, 12, 5478-81	6.2	38
178	Ink-jet printed p-type polymer electronics based on liquid-crystalline polymer semiconductors. *Journal of Materials Chemistry*, **2010**, 20, 1927		37
177	Impact of backbone fluorination on nanoscale morphology and excitonic coupling in polythiophenes. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 5113-5118	11.5	36

176	Direct Correlation of Charge Transfer Absorption with Molecular Donor:Acceptor Interfacial Area via Photothermal Deflection Spectroscopy. *Journal of the American Chemical Society*, **2015**, 137, 5256-9	16.4	36
175	Origin of the different transport properties of electron and hole polarons in an ambipolar polyselenophene-based conjugated polymer. *Physical Review B*, **2011**, 84,	3.3	36
174	Polymer chain/nanocrystal ordering in thin films of regioregular poly(3-hexylthiophene) and blends with a soluble fullerene. *Soft Matter*, **2006**, 3, 117-121	3.6	35
173	p-Doping of organic hole transport layers in pi perovskite solar cells: correlating open-circuit voltage and photoluminescence quenching. *Journal of Materials Chemistry A*, **2019**, 7, 18971-18979	13	34
172	Influence of polymer ionization potential on the open-circuit voltage of hybrid polymer/TiO2 solar cells. *Applied Physics Letters*, **2008**, 92, 053308	3.4	34
171	Photoinduced Charge Carrier Generation in Blends of Poly(Thienothiophene) Derivatives and [6,6]-Phenyl-C61-butyric Acid Methyl Ester: Phase Segregation versus Intercalation. *Journal of Physical Chemistry C*, **2010**, 114, 15116-15120	3.8	33
170	Solution-Processed In2O3/ZnO Heterojunction Electron Transport Layers for Efficient Organic Bulk Heterojunction and Inorganic Colloidal Quantum-Dot Solar Cells. *Solar Rrl*, **2018**, 2, 1800076	7.1	32
169	Deciphering photocarrier dynamics for tuneable high-performance perovskite-organic semiconductor heterojunction phototransistors. *Nature Communications*, **2019**, 10, 4475	17.4	31
168	Impact of the Gate Dielectric on Contact Resistance in High-Mobility Organic Transistors. *Advanced Electronic Materials*, **2019**, 5, 1800723	6.4	31
167	Near Infrared Absorbing Soluble Poly(cyclopenta[2,1-b:3,4-b?]dithiophen-4-one)vinylene Polymers Exhibiting High Hole and Electron Mobilities in Ambient Air. *Chemistry of Materials*, **2013**, 25, 59-68	9.6	31
166	Oriented Liquid Crystalline Polymer Semiconductor Films with Large Ordered Domains. *ACS Applied Materials & Interfaces*, **2015**, 7, 26726-34	9.5	31
165	High mobility ambipolar charge transport in a cross-linked reactive mesogen at room temperature. *Applied Physics Letters*, **2005**, 87, 172110	3.4	31
164	A gentle introduction to the noble art of flow chemistry. *Materials Horizons*, **2014**, 1, 373	14.4	30
163	Thermoelectric Materials: A Brief Historical Survey from Metal Junctions and Inorganic Semiconductors to Organic Polymers. *Israel Journal of Chemistry*, **2014**, 54, 534-552	3.4	30
162	Novel BODIPY-based conjugated polymers donors for organic photovoltaic applications. *RSC Advances*, **2013**, 3, 10221	3.7	30
161	Synthetic Aspects of Organic Semiconductors. *MRS Bulletin*, **2008**, 33, 698-705	3.2	30
160	Introducing a Nonvolatile N-Type Dopant Drastically Improves Electron Transport in Polymer and Small-Molecule Organic Transistors. *Advanced Functional Materials*, **2019**, 29, 1902784	15.6	29
159	Separate charge transport pathways determined by the time of flight method in bimodal polytriarylamine. *Journal of Applied Physics*, **2009**, 105, 013701	2.5	28

158	Solution processed low-voltage organic transistors and complementary inverters. *Applied Physics Letters*, **2009**, 95, 103310	3.4	28
157	Novel wide-bandgap non-fullerene acceptors for efficient tandem organic solar cells. *Journal of Materials Chemistry A*, **2020**, 8, 1164-1175	13	28
156	Tetradiketone macrocycle for divalent aluminium ion batteries. *Nature Communications*, **2021**, 12, 2386	17.4	28
155	Pentafluorobenzene end-group as a versatile handle for fluoro "click" functionalization of polythiophenes. *Chemical Science*, **2017**, 8, 2215-2225	9.4	27
154	Highly-efficient semi-transparent organic solar cells utilising non-fullerene acceptors with optimised multilayer MoO3/Ag/MoO3 electrodes. *Materials Chemistry Frontiers*, **2019**, 3, 450-455	7.8	27
153	Low band gap dithienogermolodithiophene copolymers with tunable acceptors and side-chains for organic solar cells. *Journal of Materials Chemistry A*, **2013**, 1, 14973	13	27
152	Octaalkyl- and Octaalkoxy-2,3-naphthalocyanines **1997**, 01, 77-86		27
151	Combinatorial screening of the effect of temperature on the microstructure and mobility of a high performance polythiophene semiconductor. *Applied Physics Letters*, **2007**, 90, 012112	3.4	27
150	Investigation of Radical and Cationic Cross-Linking in High-Efficiency, Low Band Gap Solar Cell Polymers. *Advanced Energy Materials*, **2015**, 5, 1401228	21.8	26
149	Anion-induced N-doping of naphthalenediimide polymer semiconductor in organic thin-film transistors. *Npj Flexible Electronics*, **2018**, 2,	10.7	26
148	Post-polymerisation functionalisation of conjugated polymer backbones and its application in multi-functional emissive nanoparticles. *Nature Communications*, **2018**, 9, 3237	17.4	26
147	Doping Approaches for Organic Semiconductors. *Chemical Reviews*, **2021**,	68.1	26
146	Synthesis of a Luminescent Arsolo[2,3-d:5,4-d?]bis(thiazole) Building Block and Comparison to Its Phosphole Analogue. *Organometallics*, **2017**, 36, 2632-2636	3.8	25
145	Switching between Local and Global Aromaticity in a Conjugated Macrocycle for High-Performance Organic Sodium-Ion Battery Anodes. *Angewandte Chemie - International Edition*, **2020**, 59, 12958-12964	16.4	22
144	Optical Acetone Vapor Sensors Based on Chiral Nematic Liquid Crystals and Reactive Chiral Dopants. *Advanced Optical Materials*, **2016**, 4, 592-596	8.1	22
143	Alternating Copolymers Incorporating Dithienogemolodithiophene for Field-Effect Transistor Applications. *Macromolecules*, **2014**, 47, 8602-8610	5.5	22
142	A comparison between dithienosilole and dithienogermole donor□cceptor type co-polymers for organic bulk heterojunction photovoltaic devices. *Journal of Materials Chemistry*, **2012**, 22, 9975		22
141	Hexyl-Substituted Oligoselenophenes with Central Tetrafluorophenylene Units: Synthesis, Characterisation and Application in Organic Field Effect Transistors. *Macromolecular Rapid Communications*, **2008**, 29, 1839-1843	4.8	22

140	Cyano substituted benzotriazole based polymers for use in organic solar cells. *Journal of Materials Chemistry A*, **2017**, 5, 6465-6470	13	21
139	The impact of thienothiophene isomeric structures on the optoelectronic properties and photovoltaic performance in quinoxaline based donor□cceptor copolymers. *Polymer Chemistry*, **2015**, 6, 3098-3109	4.9	21
138	Polythiophenes with vinylene linked ortho, meta and para-carborane sidechains. *Polymer Chemistry*, **2014**, 5, 6190-6199	4.9	21
137	A capping methodology for the synthesis of lower mu-oxo-phthalocyaninato silicon oligomers. *Journal of the American Chemical Society*, **2005**, 127, 16382-3	16.4	21
136	Hall Effect in Polycrystalline Organic Semiconductors: The Effect of Grain Boundaries. *Advanced Functional Materials*, **2020**, 30, 1903617	15.6	21
135	Systematic Tuning of 2,1,3-Benzothiadiazole Acceptor Strength by Monofunctionalization with Alkylamine, Thioalkyl, or Alkoxy Groups in Carbazole Donor□Acceptor Polymers. *Macromolecules*, **2017**, 50, 2736-2746	5.5	20
134	The effect of phase morphology on the nature of long-lived charges in semiconductor polymer:fullerene systems. *Journal of Materials Chemistry C*, **2015**, 3, 3722-3729	7.1	20
133	Crucial Role of Fluorine in Fully Alkylated Ladder-Type Carbazole-Based Nonfullerene Organic Solar Cells. *ACS Applied Materials & Interfaces*, **2020**, 12, 9555-9562	9.5	20
132	Incorporation of benzocarborane into conjugated polymer systems: synthesis, characterisation and optoelectronic properties. *Journal of Materials Chemistry C*, **2014**, 2, 232-239	7.1	20
131	In-situ monitoring of molecular vibrations of two organic semiconductors in photovoltaic blends and their impact on thin film morphology. *Applied Physics Letters*, **2013**, 102, 173302	3.4	20
130	A comprehensive study of the effect of reactive end groups on the charge carrier transport within polymerized and nonpolymerized liquid crystals. *Journal of Applied Physics*, **2007**, 101, 023713	2.5	20
129	Synthesis of low band gap polymers based on pyrrolo[3,2-d:4,5-d?]bisthiazole (PBTz) and thienylenevinylene (TV) for organic thin-film transistors (OTFTs). *Journal of Materials Chemistry C*, **2017**, 5, 2247-2258	7.1	19
128	Carborane-Induced Excimer Emission of Severely Twisted Bis-o-Carboranyl Chrysene. *Angewandte Chemie*, **2018**, 130, 10800-10805	3.6	19
127	Classification of semiconducting polymeric mesophases to optimize device postprocessing. *Journal of Polymer Science, Part B: Polymer Physics*, **2015**, 53, 1641-1653	2.6	19
126	Electrooptical Spectroscopy of Uniaxially Aligned Polythiophene Films in Field-Effect Transistors. *Chemistry of Materials*, **2013**, 25, 2075-2082	9.6	19
125	Electrical Properties of Reactive Liquid Crystal Semiconductors. *Japanese Journal of Applied Physics*, **2008**, 47, 488-491	1.4	19
124	Hybrid complementary circuits based on p-channel organic and n-channel metal oxide transistors with balanced carrier mobilities of up to 10 cm2/Vs. *Applied Physics Letters*, **2016**, 109, 263301	3.4	19
123	Diseleno[3,2-:2Q3G]selenophene-Containing High-Mobility Conjugated Polymer for Organic Field-Effect Transistors. *Advanced Science*, **2019**, 6, 1900245	13.6	18

122	Fused Cyclopentadithienothiophene Acceptor Enables Ultrahigh Short-Circuit Current and High Efficiency >11% in As-Cast Organic Solar Cells. *Advanced Functional Materials*, **2019**, 29, 1904956	15.6	18
121	Benzocarborano[2,1-b:3,4-b?]dithiophene Containing Conjugated Polymers: Synthesis, Characterization, and Optoelectronic Properties. *Macromolecules*, **2014**, 47, 89-96	5.5	18
120	Hybrid Polymer Solar Cells from Zinc Oxide and Poly(3-hexylselenophene). *Journal of Physical Chemistry C*, **2011**, 115, 18901-18908	3.8	18
119	A diphthalocyanino-dehydro[12]annulene. *Chemical Communications*, **2000**, 969-970	5.8	18
118	Unsubstituted meso-positioning thienyl BODIPY: a promising electron deficient building block for the development of near infrared (NIR) p-type donor–acceptor (D–A) conjugated polymers. *Journal of Materials Chemistry C*, **2018**, 6, 4030-4040	7.1	17
117	Controlled synthesis of conjugated random copolymers in a droplet-based microreactor. *Materials Horizons*, **2014**, 1, 214-218	14.4	17
116	Importance of intramolecular electron spin relaxation in small molecule semiconductors. *Physical Review B*, **2011**, 84,	3.3	17
115	Direct measurement of carrier drift velocity and mobility in a polymer field-effect transistor. *Applied Physics Letters*, **2006**, 89, 242104	3.4	17
114	Visualizing the Vertical Energetic Landscape in Organic Photovoltaics. *Joule*, **2019**, 3, 2513-2534	27.8	16
113	Organic field-effect transistors of poly(2,5-bis(3-dodecylthiophen-2-yl)thieno[2,3-b]thiophene) deposited on five different silane self-assembled monolayers. *Chemical Communications*, **2008**, 871-3	5.8	16
112	Relationship between Film Morphology, Optical, and Conductive Properties of Poly(thienothiophene): [6,6]-Phenyl C-61-Butyric Acid Methyl Ester Bulk Heterojunctions. *Journal of Physical Chemistry C*, **2008**, 112, 15973-15979	3.8	16
111	A study of the effects metal residues in poly(9,9-dioctylfluorene) have on field-effect transistor device characteristics. *Synthetic Metals*, **2007**, 157, 872-875	3.6	16
110	Alkylated indacenodithieno[3,2-b]thiophene-based all donor ladder-type conjugated polymers for organic thin film transistors. *Journal of Materials Chemistry C*, **2018**, 6, 2004-2009	7.1	15
109	Effects of thermal annealing upon the nanomorphology of poly(3-hexylselenophene)-PCBM blends. *Macromolecular Rapid Communications*, **2011**, 32, 1454-60	4.8	15
108	Real-Time Investigation of Intercalation and Structure Evolution in Printed Polymer:Fullerene Bulk Heterojunction Thin Films. *Advanced Energy Materials*, **2016**, 6, 1502025	21.8	15
107	Diselenogermole as a novel donor monomer for low band gap polymers. *Journal of Materials Chemistry A*, **2015**, 3, 1986-1994	13	14
106	An Air-Stable Semiconducting Polymer Containing Dithieno[3,2-b:2?,3?-d]arsole. *Angewandte Chemie*, **2016**, 128, 7264-7267	3.6	14
105	Heavy-atom effects on intramolecular singlet fission in a conjugated polymer. *Journal of Chemical Physics*, **2019**, 151, 044902	3.9	14

104	Fused pyrrolo[3,2-d:4,5-d?]bisthiazole-containing polymers for using in high-performance organic bulk heterojunction solar cells. *Solar Energy Materials and Solar Cells*, **2012**, 96, 112-116	6.4	14
103	Photoconductivity anisotropy study in uniaxially aligned polymer based planar photodiodes. *Organic Electronics*, **2012**, 13, 36-42	3.5	14
102	Impact of p-type doping on charge transport in blade-coated small-molecule:polymer blend transistors. *Journal of Materials Chemistry C*, **2020**, 8, 15368-15376	7.1	14
101	Copper (I) Selenocyanate (CuSeCN) as a Novel Hole-Transport Layer for Transistors, Organic Solar Cells, and Light-Emitting Diodes. *Advanced Functional Materials*, **2018**, 28, 1707319	15.6	13
100	Vinylene-Linked Oligothiophene-Difluorobenzothiadiazole Copolymer for Transistor Applications. *ACS Applied Materials & Interfaces*, **2016**, 8, 31154-31165	9.5	13
99	A general mechanism for controlling thin film structures in all-conjugated block copolymer:fullerene blends. *Journal of Materials Chemistry A*, **2014**, 2, 14711-14719	13	13
98	Rapid flow-based synthesis of poly(3-hexylthiophene) using 2-methyltetrahydrofuran as a bio-derived reaction solvent. *European Polymer Journal*, **2016**, 80, 240-246	5.2	13
97	Control of polythiophene film microstructure and charge carrier dynamics through crystallization temperature. *Journal of Polymer Science, Part B: Polymer Physics*, **2014**, 52, 700-707	2.6	12
96	Carrier-density dependence of the hole mobility in doped and undoped regioregular poly(3-hexylthiophene). *Physica Status Solidi (B): Basic Research*, **2012**, 249, 138-141	1.3	12
95	Predicting the photocurrent□omposition dependence in organic solar cells. *Energy and Environmental Science*, **2021**, 14, 986-994	35.4	12
94	Effect of a heavy heteroatom on triplet formation and interactions in single conjugated polymer molecules and aggregates. *Physical Chemistry Chemical Physics*, **2017**, 19, 28239-28248	3.6	11
93	Fused Ring Cyclopentadithienothiophenes as Novel Building Blocks for High Field Effect Mobility Conjugated Polymers. *Macromolecules*, **2015**, 48, 5605-5613	5.5	11
92	Naphthalene diimide based near-infrared luminogens with aggregation-induced emission characteristics for biological imaging and high mobility ambipolar transistors. *Science China Chemistry*, **2020**, 63, 1198-1207	7.9	11
91	Core Fluorination Enhances Solubility and Ambient Stability of an IDT-Based n-Type Semiconductor in Transistor Devices. *Advanced Functional Materials*, **2020**, 30, 2000325	15.6	11
90	A novel low-bandgap pyridazine thiadiazole-based conjugated polymer with deep molecular orbital levels. *Polymer Chemistry*, **2020**, 11, 581-585	4.9	11
89	A versatile star-shaped organic semiconductor based on benzodithiophene and diketopyrrolopyrrole. *Journal of Materials Chemistry C*, **2019**, 7, 6622-6629	7.1	10
88	Conjugated polymer-porphyrin complexes for organic electronics. *ChemPhysChem*, **2015**, 16, 1223-30	3.2	10
87	Charge photogeneration in donor/acceptor organic solar cells. *Journal of Photonics for Energy*, **2012** , 2, 021001	1.2	10

86	Polyterthiophenes Incorporating 3,4-Difluorothiophene Units: Application in Organic Field-Effect Transistors. *Macromolecular Chemistry and Physics*, **2010**, 211, 2642-2648	2.6	10
85	One-Step Sixfold Cyanation of Benzothiadiazole Acceptor Units for Air-Stable High-Performance n-Type Organic Field-Effect Transistors. *Angewandte Chemie - International Edition*, **2021**, 60, 5970-5977	16.4	10
84	Measurement of Cohesion and Adhesion of Semiconducting Polymers by Scratch Testing: Effect of Side-Chain Length and Degree of Polymerization. *ACS Macro Letters*, **2018**, 7, 1003-1009	6.6	9
83	Chalcogen Bridged Thieno- and Selenopheno[2,3-d:5,4-d?]bisthiazole and Their Diketopyrrolopyrrole Based Low-Bandgap Copolymers. *Macromolecules*, **2018**, 51, 6076-6084	5.5	9
82	The effect of deuteration on organic magnetoresistance. *Synthetic Metals*, **2011**, 161, 608-612	3.6	9
81	Observation of bi-polarons in blends of conjugated copolymers and fullerene derivatives. *Physical Chemistry Chemical Physics*, **2011**, 13, 16579-84	3.6	9
80	Designing solution-processable air-stable liquid crystalline crosslinkable semiconductors. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2006**, 364, 2779-87	3	9
79	Understanding Charge Transport in High-Mobility p-Doped Multicomponent Blend Organic Transistors. *Advanced Electronic Materials*, **2020**, 6, 2000539	6.4	9
78	Influence of Backbone Curvature on the Organic Electrochemical Transistor Performance of Glycolated Donor-Acceptor Conjugated Polymers. *Angewandte Chemie - International Edition*, **2021**, 60, 19679-19684	16.4	9
77	The Influence of Backbone Fluorination on the Dielectric Constant of Conjugated Polythiophenes. *Advanced Electronic Materials*, **2018**, 4, 1700375	6.4	9
76	Implicit and explicit host effects on excitons in pentacene derivatives. *Journal of Chemical Physics*, **2018**, 148, 104108	3.9	8
75	Synthesis of tetraselenophenoporphyrazine and its application in transistor devices. *Journal of Materials Chemistry C*, **2013**, 1, 6198	7.1	8
74	Routes to some 3,6-disubstituted phthalonitriles and examples of phthalocyanines derived therefrom: An overview. *Journal of Porphyrins and Phthalocyanines*, **2013**, 17, 649-664	1.8	8
73	Bulk charge transport in liquid-crystalline polymer semiconductors based on poly(2,5-bis(3-alkylthiophen-2-yl)thieno[3,2-b]thiophene). *Polymer Chemistry*, **2010**, 1, 1448	4.9	8
72	Theoretical and experimental investigations of a polyalkylated-thieno[3,2-b]thiophene semiconductor. *Journal of Applied Physics*, **2008**, 104, 083705	2.5	8
71	TOF mobility measurements in pristine films of P3HT: control of hole injection and influence of film thickness **2006**, 6334, 16		8
70	The influence of molecular weight on the microstructure and thin film transistor characteristics of pBTTT polymers. **2006**,		8
69	Terahertz short-range mobilities in neat and intermixed regions of polymer:fullerene blends with controlled phase morphology. *Journal of Materials Chemistry A*, **2018**, 6, 22301-22309	13	8

68	Dithieno[3,2-b:2Q,3Qd]arsole-containing conjugated polymers in organic photovoltaic devices. *Dalton Transactions*, **2019**, 48, 6676-6679	4.3	7
67	Correlating the Structural and Photophysical Properties of Ortho, Meta, and Para-Carboranyl-Anthracene Dyads. *Advanced Electronic Materials*, **2020**, 6, 2000312	6.4	7
66	Characterization of Interfacial Structure in Polymer-Fullerene Bulk Heterojunctions via ^{13}C {^{2}H} Rotational Echo Double Resonance NMR. *Physical Review Letters*, **2018**, 121, 026101	7.4	7
65	Switching between Local and Global Aromaticity in a Conjugated Macrocycle for High-Performance Organic Sodium-Ion Battery Anodes. *Angewandte Chemie*, **2020**, 132, 13058-13064	3.6	7
64	Electron spin relaxation in organic semiconductors probed through SR. *Journal of Physics: Conference Series*, **2011**, 292, 012004	0.3	6
63	The effects of metal impurities in poly[(2,5-bis(3-decylthiophen-2-yl)thieno[2,3-b]thiophene] on field-effect transistor properties. *Organic Electronics*, **2009**, 10, 215-221	3.5	6
62	Polymer thin film transistor without surface pretreatment on silicon nitride gate dielectric. *Applied Physics Letters*, **2008**, 93, 073305	3.4	6
61	A Tri-Channel Oxide Transistor Concept for the Rapid Detection of Biomolecules Including the SARS-CoV-2 Spike Protein. *Advanced Materials*, **2021**, e2104608	24	6
60	Polymer Light-Emitting Transistors With Charge-Carrier Mobilities Exceeding 1 cm2 V1 s1. *Advanced Electronic Materials*, **2020**, 6, 1901132	6.4	6
59	Ring fusion in tetrathienylethene cored perylene diimide tetramers affords acceptors with strong and broad absorption in the near-UV to visible region. *Journal of Materials Chemistry C*, **2020**, 8, 17237-17244	7.1	6
58	Thioalkyl- and sulfone-substituted poly(p-phenylene vinylene)s. *Polymer Chemistry*, **2019**, 10, 738-750	4.9	5
57	Indacenodithiophene-benzothiadiazole organic field-effect transistors with gravure-printed semiconductor and dielectric on plastic. *MRS Communications*, **2015**, 5, 599-603	2.7	5
56	Impact of Fullerene Intercalation on Structural and Thermal Properties of Organic Photovoltaic Blends. *Journal of Physical Chemistry C*, **2017**, 121, 20976-20985	3.8	5
55	ZnO hybrid photovoltaics with variable side-chain lengths of thienothiophene polymer. *Thin Solid Films*, **2015**, 576, 38-41	2.2	5
54	Organic Semiconductor Materials for Transistors **2012**, 1-26		5
53	Electronic structure of a novel alkylidene fluorene polymer in the pristine state. *Chemical Physics Letters*, **2004**, 385, 184-188	2.5	5
52	Reconciling models of interfacial state kinetics and device performance in organic solar cells: impact of the energy offsets on the power conversion efficiency.. *Energy and Environmental Science*, **2022**, 15, 1256-1270	35.4	5
51	N-Doping improves charge transport and morphology in the organic non-fullerene acceptor O-IDTBR. *Journal of Materials Chemistry C*, **2021**, 9, 4486-4495	7.1	5

50	Spectroscopic and morphological investigation of conjugated photopolymerisable quinquethiophene liquid crystals. *Current Applied Physics*, **2012**, 12, e59-e66	2.6	4
49	New liquid crystalline solution processible organic semiconductors and their performance in field effect transistors **2003**,		4
48	A Structurally Simple but High-Performing Donor–Acceptor Polymer for Field-Effect Transistor Applications. *Advanced Electronic Materials*, **2020**, 6, 2000490	6.4	4
47	Origin of Open-Circuit Voltage Turnover in Organic Solar Cells at Low Temperature. *Solar Rrl*, **2020**, 4, 2000375	7.1	4
46	Comparing blends and blocks: Synthesis of partially fluorinated diblock polythiophene copolymers to investigate the thermal stability of optical and morphological properties. *Beilstein Journal of Organic Chemistry*, **2016**, 12, 2150-2163	2.5	4
45	The influence of alkyl group regiochemistry and backbone fluorination on the packing and transistor performance of N-cyanoimine functionalised indacenodithiophenes. *Materials Advances*, **2021**, 2, 1706-1714	3.3	4
44	Functional group introduction and aromatic unit variation in a set of π-conjugated macrocycles: revealing the central role of local and global aromaticity. *Organic Chemistry Frontiers*, **2021**, 8, 4730-4745	5.2	4
43	Template-Synthesis of Conjugated Poly(3-Hexylselenophene) (P3HS) Nanofibers Using Femtosecond Laser Machined Fused Silica Templates. *MRS Advances*, **2017**, 2, 2957-2960	0.7	3
42	Fast and Selective Post-polymerization Modification of Conjugated Polymers Using Dimethyldioxirane. *Frontiers in Chemistry*, **2019**, 7, 123	5	3
41	Novel soluble thieno[3,2-b]thiophene fused porphyrazine. *RSC Advances*, **2015**, 5, 90645-90650	3.7	3
40	Controlled integration of oligo- and polythiophenes at the molecular scale. *Physical Chemistry Chemical Physics*, **2015**, 17, 26525-9	3.6	3
39	Resolving Anomalous Heavy Atom Effects from Discrete Triplet Mediated Photochemistry Events on Single Conjugated Polymer Chains. *Journal of Physical Chemistry C*, **2018**, 122, 9718-9725	3.8	3
38	Distinguishing between nonlinear channel transport and contact effects in organic FETs **2007**,		3
37	Effects of semiconductor-dielectric interfaces on polymeric thin-film transistors **2005**,		3
36	Stability in OTFT Gas Sensors. *Materials Research Society Symposia Proceedings*, **2005**, 871, 1		3
35	Double Ring-Closing Approach for the Synthesis of 2,3,6,7-Substituted Anthracene Derivatives. *Journal of Organic Chemistry*, **2020**, 85, 8240-8244	4.2	3
34	Tunable Control of the Hydrophilicity and Wettability of Conjugated Polymers by a Postpolymerization Modification Approach. *Macromolecular Bioscience*, **2020**, 20, e2000087	5.5	3
33	Highly Deformed o-Carborane Functionalised Non-linear Polycyclic Aromatics with Exceptionally Long C-C Bonds. *Chemistry - A European Journal*, **2021**, 27, 1970-1975	4.8	3

32	Design of experiment optimization of aligned polymer thermoelectrics doped by ion-exchange. *Applied Physics Letters*, **2021**, 119, 111903	3.4	3
31	Infrared Organic Photodetectors Employing Ultralow Bandgap Polymer and Non-Fullerene Acceptors for Biometric Monitoring.. *Small*, **2022**, e2200580	11	3
30	Near-IR Absorbing Molecular Semiconductors Incorporating Cyanated Benzothiadiazole Acceptors for High-Performance Semitransparent n-Type Organic Field-Effect Transistors **2022**, 4, 165-174		3
29	Solar Cells: Domain Compositions and Fullerene Aggregation Govern Charge Photogeneration in Polymer/Fullerene Solar Cells (Adv. Energy Mater. 11/2014). *Advanced Energy Materials*, **2014**, 4, n/a-n/a	21.8	2
28	Stable semiconducting thiophene polymers and their field effect transistor characteristics **2005**,		2
27	N-type polymer semiconductors incorporating para, meta, and ortho-carborane in the conjugated backbone. *Polymer*, **2022**, 240, 124481	3.9	2
26	Using the Stark effect to understand charge generation in organic solar cells **2015**,		1
25	High-mobility ambipolar polymer transistors: properties and function **2012**,		1
24	Thienothiophene Copolymers in Field Effect Transistors647-672		1
23	The Impact of the Dielectric/Semiconductor Interface on Microstructure and Charge Carrier Transport in High-Performance Polythiophene Transistors. *ECS Transactions*, **2008**, 13, 113-122	1	1
22	Self-assembled liquid crystalline solution processable semiconductors **2004**,		1
21	14 GHz Schottky Diodes using a p-Doped Organic Polymer.. *Advanced Materials*, **2022**, e2108524	24	1
20	Development of Polymer Semiconductors for Field-Effect Transistor Devices in Displays **2009**, 393-429		1
19	Flow Synthesis: A Better Way to Conjugated Polymers? **2019**, 613-652		1
18	The synthesis and application of novel benzodithiophene based reactive mesogens with negative wavelength dispersion birefringence. *Journal of Materials Chemistry C*,	7.1	1
17	High Current-density Organic Electrochemical Diodes Enabled by Asymmetric Active Layer Design. *Advanced Materials*, **2021**, e2107355	24	1
16	New Liquid Crystalline Semiconductors And Their Fabrication in Organic Field Effect Transistor Devices. *Materials Research Society Symposia Proceedings*, **2003**, 771, 831		1
15	Functional 4H-Dithieno[3,2-b:2?,3?-d]pyrrole Derivatives in Base-Dopable Conjugated Polymers and Oligomers. *Macromolecules*, **2020**, 53, 6649-6655	5.5	1

14	Multibranched aliphatic side chains for Conjugated polymers with a high density of Unshielded aromatics. *Chemical Communications*, **2020**, 56, 12138-12141	5.8	1
13	Influence of synthetic pathway, molecular weight and side chains on properties of indacenodithiophene-benzothiadiazole copolymers made by direct arylation polycondensation. *Journal of Materials Chemistry C*, **2021**, 9, 4597-4606	7.1	1
12	Influence of Backbone Curvature on the Organic Electrochemical Transistor Performance of Glycolated Donor Acceptor Conjugated Polymers. *Angewandte Chemie*, **2021**, 133, 19831-19836	3.6	1
11	Reconciling the Driving Force and the Barrier to Charge Separation in Donor Nonfullerene Acceptor Films. *ACS Energy Letters*,3572-3581	20.1	1
10	[2.2.2.2]Paracyclophanetetraenes (PCTs): cyclic structural analogues of poly(p-phenylene vinylene)s (PPVs). *Open Research Europe*,1, 111		1
9	Triplet Generation Dynamics in Si- and Ge-Bridged Conjugated Copolymers. *Journal of Physical Chemistry C*, **2022**, 126, 1036-1045	3.8	0
8	One-Step Sixfold Cyanation of Benzothiadiazole Acceptor Units for Air-Stable High-Performance n-Type Organic Field-Effect Transistors. *Angewandte Chemie*, **2021**, 133, 6035-6042	3.6	0
7	Transition-Metal-Free Homopolymerization of Pyrrolo[2,3-:5,4-]bisthiazoles via Nucleophilic Aromatic Substitution. *ACS Applied Materials & Interfaces*, **2021**, 13, 41094-41101	9.5	0
6	[2.2.2.2]Paracyclophanetetraenes (PCTs): cyclic structural analogues of poly(p-phenylene vinylene)s (PPVs). *Open Research Europe*,1, 111		0
5	Vinylene Flanked Naphtho[1,2-c:5,6-c?]bis[1,2,5]thiadiazole Polymer for Low-Crystallinity Ambipolar Transistors. *Macromolecules*, **2022**, 55, 331-337	5.5	0
4	The Synthesis of Conjugated Polythiophenes by Kumada Cross-Coupling **2012**, 155-198		
3	Reliable Suzuki Chemistry for Functionalised Polythiophene Synthesis. *Materials Research Society Symposia Proceedings*, **2007**, 1003, 1		
2	Semiconducting Polythiophenes for Field-Effect Transistor Devices in Flexible Electronics: Synthesis and Structure Property Relationships. *Kluwer International Series in Electronic Materials: Science and Technology*, **2009**, 261-296		
1	Charge transport and recombination in wide-bandgap Y6 derivatives-based organic solar cells. *Advances in Natural Sciences: Nanoscience and Nanotechnology*, **2022**, 13, 025001	1.6	