Elsa Reichmanis

List of Publications by Year
in descending order

128 papers	5,464 citations	57631 44 h-index	95083 68 g-index
130 all docs	130 docs citations	130 times ranked	6959 citing authors

#	Article	IF	Citations
1	The Solution is the Solution: Data-Driven Elucidation of Solution-to-Device Feature Transfer for Ï€-Conjugated Polymer Semiconductors. ACS Applied Materials & Interfaces, 2022, 14, 3613-3620.	4.0	16
2	Consensus statement: Standardized reporting of power-producing luminescent solar concentrator performance. Joule, 2022, 6, 8-15.	11.7	66
3	Single-Pot Fabrication of Cellulose-Reinforced Solid Polymer Lithium-Ion Conductors. ACS Applied Polymer Materials, 2022, 4, 1948-1955.	2.0	6
4	Anisotropic Responsive Microgels Based on the Cholesteric Phase of Chitin Nanocrystals. ACS Macro Letters, 2022, 11, 96-102.	2.3	2
5	Composition Gradient High-Throughput Polymer Libraries Enabled by Passive Mixing and Elevated Temperature Operability. Chemistry of Materials, 2022, 34, 6659-6670.	3.2	3
6	Integrated dynamic wet spinning of core-sheath hydrogel fibers for optical-to-brain/tissue communications. National Science Review, 2021, 8, nwaa209.	4.6	36
7	Data Science Guided Experiments Identify Conjugated Polymer Solution Concentration as a Key Parameter in Device Performance. , 2021, 3, 1321-1327.		14
8	Active Material Interfacial Chemistry and Its Impact on Composite Magnetite Electrodes. ACS Applied Energy Materials, 2021, 4, 9836-9847.	2.5	4
9	Toward data-enabled process optimization of deformable electronic polymer-based devices. Current Opinion in Chemical Engineering, 2020, 27, 72-80.	3.8	8
10	Highly Oriented and Ordered Water-Soluble Semiconducting Polymers in a DNA Matrix. Chemistry of Materials, 2020, 32, 688-696.	3.2	16
11	Small Data Machine Learning: Classification and Prediction of Poly(ethylene terephthalate) Stabilizers Using Molecular Descriptors. ACS Applied Polymer Materials, 2020, 2, 5592-5601.	2.0	13
12	Advances and opportunities in development of deformable organic electrochemical transistors. Journal of Materials Chemistry C, 2020, 8, 15067-15078.	2.7	25
13	More Than Another Halochromic Polymer: Thiazole-Based Conjugated Polymer Transistors for Acid-Sensing Applications. ACS Applied Polymer Materials, 2020, 2, 5898-5906.	2.0	1
14	Synergistic Effect of <i>N</i>,<i>N</i>-Dimethylformamide and Hydrochloric Acid on the Growth of MAPbI₃ Perovskite Films for Solar Cells. ACS Omega, 2020, 5, 32295-32304.	1.6	3
15	Ring-Patterned Perovskite Single Crystals Fabricated by the Combination of Rigid and Flexible Templates. ACS Applied Materials & Interfaces, 2020, 12, 27786-27793.	4.0	3
16	Perspectiveâ€"Enhancing Active Anode Material Performance for Lithium-Ion Batteries via Manipulation of Interfacial Chemistry. Journal of the Electrochemical Society, 2020, 167, 050507.	1.3	8
17	26.7% Efficient 4-Terminal Perovskiteâ€“Silicon Tandem Solar Cell Composed of a High-Performance Semitransparent Perovskite Cell and a Doped Poly-Si/SiOx Passivating Contact Silicon Cell. IEEE Journal of Photovoltaics, 2020, 10, 417-422.	1.5	40
18	Functionalization-Directed Stabilization of Hydrogen-Bonded Polymer Complex Fibers: Elasticity and Conductivity. Advanced Fiber Materials, 2019, 1, 71-81.	7.9	26

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19	Carboxylated Poly(thiophene) Binders for High-Performance Magnetite Anodes: Impact of Cation Structure. ACS Applied Materials & Interfaces, 2019, 11, 44046-44057.	4.0	11
20	Carboxylic Acid Functionalization Yields Solvent-Resistant Organic Electrochemical Transistors. , 2019, 1, 599-605.		35
21	Festschrift in Honor of Prof. Jean-Luc BrÃ©das on His 65th Birthday. Chemistry of Materials, 2019, 31, 6307-6308.	3.2	2
22	Control of Nucleation Density in Conjugated Polymers via Seed Nucleation. ACS Applied Materials & Interfaces, 2019, 11, 37955-37965.	4.0	11
23	Electrically Conductive Shell-Protective Layer Capping on the Silicon Surface as the Anode Material for High-Performance Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2019, 11, 40034-40042.	4.0	24
24	Tuning Conjugated Polymers for Binder Applications in High-Capacity Magnetite Anodes. ACS Applied Energy Materials, 2019, 2, 7584-7593.	2.5	18
25	Functionalized Cellulose Nanocrystal-Mediated Conjugated Polymer Aggregation. ACS Applied Materials & Interfaces, 2019, 11, 25338-25350.	4.0	21
26	Rational Design of a Narrow-Bandgap Conjugated Polymer Using the Quinoidal Thieno[3,2-<i>b</i>]thiophene-Based Building Block for Organic Field-Effect Transistor Applications. Macromolecules, 2019, 52, 4749-4756.	2.2	41
27	Synergistic Use of Bithiazole and Pyridinyl Substitution for Effective Electron Transport Polymer Materials. Chemistry of Materials, 2019, 31, 3957-3966.	3.2	26
28	Robust and Stretchable Polymer Semiconducting Networks: From Film Microstructure to Macroscopic Device Performance. Chemistry of Materials, 2019, 31, 6530-6539.	3.2	37
29	An Electrifying Choice for the 2019 Chemistry Nobel Prize: Goodenough, Whittingham, and Yoshino. Chemistry of Materials, 2019, 31, 8577-8581.	3.2	31
30	Perovskite solar cells with a hybrid electrode structure. AIP Advances, 2019, 9, 125037.	0.6	16
31	The role of Cr doping in Ni Fe oxide/(oxy)hydroxide electrocatalysts for oxygen evolution. Electrochimica Acta, 2018, 265, 10-18.	2.6	79
32	SWNT Anchored with Carboxylated Polythiophene â€œLinksâ€•on High-Capacity Li-Ion Battery Anode Materials. Journal of the American Chemical Society, 2018, 140, 5666-5669.	6.6	80
33	Vertical Stratification Engineering for Organic Bulk-Heterojunction Devices. ACS Nano, 2018, 12, 4440-4452.	7.3	77
34	Carbon Nanotube Web with Carboxylated Polythiophene â€œAssistâ€•for High-Performance Battery Electrodes. ACS Nano, 2018, 12, 3126-3139.	7.3	51
35	Molecular-channel driven actuator with considerations for multiple configurations and color switching. Nature Communications, 2018, 9, 590.	5.8	159
36	High capacity Li-ion battery anodes: Impact of crystallite size, surface chemistry and PEG-coating. Electrochimica Acta, 2018, 260, 235-245.	2.6	16

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37	Thermoresponsive Liquid Crystals: Thermally Switchable Liquid Crystals Based on Cellulose Nanocrystals with Patchy Polymer Grafts (Small 46/2018). Small, 2018, 14, 1870218.	5.2	2
38	Patterning Bubbles by the Stickâ€"Slip Motion of the Advancing Triple Phase Line on Nanostructures. Langmuir, 2018, 34, 15804-15811.	1.6	5
39	A Polymer Blend Approach for Creation of Effective Conjugated Polymer Charge Transport Pathways. ACS Applied Materials & Interfaces, 2018, 10, 36464-36474.	4.0	14
40	Best Practices for New Polymers and Nanoparticulate Systems. Chemistry of Materials, 2018, 30, 6587-6588.	3.2	4
41	A Thiazoleâ€"Naphthalene Diimide Based n-Channel Donorâ€"Acceptor Conjugated Polymer. Macromolecules, 2018, 51, 7320-7328.	2.2	35
42	Thermally Switchable Liquid Crystals Based on Cellulose Nanocrystals with Patchy Polymer Grafts. Small, 2018, 14, e1802060.	5.2	34
43	Solving Materialsâ€™ Small Data Problem with Dynamic Experimental Databases. Processes, 2018, 6, 79.	1.3	18
44	Upconversion-Assisted Dual-Band Luminescent Solar Concentrator Coupled for High Power Conversion Efficiency Photovoltaic Systems. ACS Photonics, 2018, 5, 3621-3627.	3.2	45
45	Modifying Perovskite Films with Polyvinylpyrrolidone for Ambient-Air-Stable Highly Bendable Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 35385-35394.	4.0	64
46	Process-Structure-Property Relationships for Design of Polymer Organic Electronics Manufacturing. Computer Aided Chemical Engineering, 2018, , 2467-2472.	0.3	1
47	Transparent Quasi-Interdigitated Electrodes for Semitransparent Perovskite Back-Contact Solar Cells. ACS Applied Energy Materials, 2018, 1, 4473-4478.	2.5	27
48	SWNT Networks with Polythiophene Carboxylate Links for High-Performance Silicon Monoxide Electrodes. ACS Applied Energy Materials, 2018, 1, 2417-2423.	2.5	12
49	Nucleation, Growth, and Alignment of Poly(3-hexylthiophene) Nanofibers for High-Performance OFETs. Accounts of Chemical Research, 2017, 50, 932-942.	7.6	121
50	Amplified Photon Upconversion by Photonic Shell of Cholesteric Liquid Crystals. Journal of the American Chemical Society, 2017, 139, 5708-5711.	6.6	47
51	Polypeptide-Assisted Organization of Ï€-Conjugated Polymers into Responsive, Soft 3D Networks. Chemistry of Materials, 2017, 29, 5058-5062.	3.2	4
52	Solvent vapor annealing of oriented PbI2 films for improved crystallization of perovskite films in the air. Solar Energy Materials and Solar Cells, 2017, 166, 167-175.	3.0	22
53	Enhanced Alignment of Water-Soluble Polythiophene Using Cellulose Nanocrystals as a Liquid Crystal Template. Biomacromolecules, 2017, 18, 1556-1562.	2.6	19
54	Ultrathin Doubleâ€Shell Capsules for High Performance Photon Upconversion. Advanced Materials, 2017, 29, 1606830.	11.1	22

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55	Wetting of Inkjet Polymer Droplets on Porous Alumina Substrates. Langmuir, 2017, 33, 130-137.	1.6	18
56	High-Throughput Image Analysis of Fibrillar Materials: A Case Study on Polymer Nanofiber Packing, Alignment, and Defects in Organic Field Effect Transistors. ACS Applied Materials & Interfaces, 2017, 9, 36090-36102.	4.0	31
57	Life Cycle Inventory Assessment as a Sustainable Chemistry and Engineering Education Tool. ACS Sustainable Chemistry and Engineering, 2017, 5, 9603-9613.	3.2	12
58	High Performance Graphitic Carbon from Waste Polyethylene: Thermal Oxidation as a Stabilization Pathway Revisited. Chemistry of Materials, 2017, 29, 9518-9527.	3.2	61
59	Versatile Interpenetrating Polymer Network Approach to Robust Stretchable Electronic Devices. Chemistry of Materials, 2017, 29, 7645-7652.	3.2	101
60	Polypeptide Composite Particle-Assisted Organization of Ï€-Conjugated Polymers into Highly Crystalline â€œCoffee Stainsâ€. ACS Applied Materials & Interfaces, 2017, 9, 34337-34348.	4.0	10
61	Aqueous Processing for Printed Organic Electronics: Conjugated Polymers with Multistage Cleavable Side Chains. ACS Central Science, 2017, 3, 961-967.	5.3	43
62	Automated Analysis of Orientational Order in Images of Fibrillar Materials. Chemistry of Materials, 2017, 29, 3-14.	3.2	57
63	Control of Molecular Ordering, Alignment, and Charge Transport in Solution-Processed Conjugated Polymer Thin Films. Polymers, 2017, 9, 212.	2.0	66
64	Combining post-specimen aberration correction and direct electron detection to image molecular structure in liquid crystal polymers. Microscopy and Microanalysis, 2016, 22, 1924-1925.	0.2	5
65	Flexible Ofets: Synergistic Effect of Regioregular and Regiorandom Poly(3â€hexylthiophene) Blends for High Performance Flexible Organic Field Effect Transistors (Adv. Electron. Mater. 2/2016). Advanced Electronic Materials, 2016, 2, .	2.6	1
66	Domed Silica Microcylinders Coated with Oleophilic Polypeptides and Their Behavior in Lyotropic Cholesteric Liquid Crystals of the Same Polypeptide. Langmuir, 2016, 32, 13137-13148.	1.6	11
67	Ordering of Poly(3-hexylthiophene) in Solutions and Films: Effects of Fiber Length and Grain Boundaries on Anisotropy and Mobility. Chemistry of Materials, 2016, 28, 3905-3913.	3.2	103
68	Silicon Valley meets the ivory tower: Searchable data repositories for experimental nanomaterials research. Current Opinion in Solid State and Materials Science, 2016, 20, 338-343.	5.6	14
69	Conjugated Polymer Alignment: Synergisms Derived from Microfluidic Shear Design and UV Irradiation. ACS Applied Materials & Interfaces, 2016, 8, 24761-24772.	4.0	26
70	Electron/Ion Transport Enhancer in High Capacity Li-Ion Battery Anodes. Chemistry of Materials, 2016, 28, 6689-6697.	3.2	60
71	Unipolar Electron Transport Polymers: A Thiazole Based All-Electron Acceptor Approach. Chemistry of Materials, 2016, 28, 6045-6049.	3.2	85
72	Toward Precision Control of Nanofiber Orientation in Conjugated Polymer Thin Films: Impact on Charge Transport. Chemistry of Materials, 2016, 28, 9099-9109.	3.2	75

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73	From Staple Food to Flexible Substrate to Electronics: Rice as a Biocompatible Precursor for Flexible Electronic Components. Chemistry of Materials, 2016, 28, 8475-8479.	3.2	5
74	Three-Dimensional Clustered Nanostructures for Microfluidic Surface-Enhanced Raman Detection. ACS Applied Materials & Interfaces, 2016, 8, 24974-24981.	4.0	18
75	Synergistic Effect of Regioregular and Regiorandom Poly(3â€hexylthiophene) Blends for High Performance Flexible Organic Field Effect Transistors. Advanced Electronic Materials, 2016, 2, 1500384.	2.6	54
76	Elastomerâ€"Polymer Semiconductor Blends for High-Performance Stretchable Charge Transport Networks. Chemistry of Materials, 2016, 28, 1196-1204.	3.2	129
77	Protein-Assisted Assembly of Ï€-Conjugated Polymers. Chemistry of Materials, 2016, 28, 573-582.	3.2	20
78	Toward Uniformly Dispersed Battery Electrode Composite Materials: Characteristics and Performance. ACS Applied Materials & Interfaces, 2016, 8, 3452-3463.	4.0	47
79	Drain Current in Poly(3â€hexylthiophene) Solutions during Film Formation: Correlations to Structural Changes. ChemNanoMat, 2015, 1, 32-38.	1.5	1
80	Photoinduced Anisotropic Assembly of Conjugated Polymers in Insulating Polymer Blends. ACS Applied Materials & Interfaces, 2015, 7, 14095-14103.	4.0	49
81	Best Practices for Reporting Organic Field Effect Transistor Device Performance. Chemistry of Materials, 2015, 27, 4167-4168.	3.2	39
82	Microfluidic Crystal Engineering of Ï€-Conjugated Polymers. ACS Nano, 2015, 9, 8220-8230.	7.3	102
83	Enhanced Mobility and Effective Control of Threshold Voltage in P3HT-Based Field-Effect Transistors via Inclusion of Oligothiophenes. ACS Applied Materials & Interfaces, 2015, 7, 6652-6660.	4.0	23
84	Liquid Crystalline Poly(3-hexylthiophene) Solutions Revisited: Role of Time-Dependent Self-Assembly. Chemistry of Materials, 2015, 27, 2687-2694.	3.2	64
85	Molecular Engineering of Nonhalogenated Solution-Processable Bithiazole-Based Electron-Transport Polymeric Semiconductors. Chemistry of Materials, 2015, 27, 2928-2937.	3.2	79
86	Flow Effects on the Controlled Growth of Nanostructured Networks at Microcapillary Walls for Applications in Continuous Flow Reactions. ACS Applied Materials & Interfaces, 2015, 7, 21580-21588.	4.0	12
87	Controlled Assembly of Poly(3â€hexylthiophene): Managing the Disorder to Order Transition on the Nanoâ€•through Mesoâ€Scales. Advanced Functional Materials, 2015, 25, 920-927.	7.8	72
88	Photoinduced Anisotropic Supramolecular Assembly and Enhanced Charge Transport of Poly(3â€hexylthiophene) Thin Films. Advanced Functional Materials, 2014, 24, 4457-4465.	7.8	102
89	Competition between Charge Transport and Energy Barrier in Injection-Limited Metal/Quantum Dot Nanocrystal Contacts. Chemistry of Materials, 2014, 26, 6393-6400.	3.2	14
90	Anisotropic Assembly of Conjugated Polymer Nanocrystallites for Enhanced Charge Transport. ACS Applied Materials & Interfaces, 2014, 6, 21541-21549.	4.0	42

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91	Photopolymer Materials and Processes for Advanced Technologies. Chemistry of Materials, 2014, 26, 533-548.	3.2	306
92	Enhancing Fieldâ€Effect Mobility of Conjugated Polymers Through Rational Design of Branched Side Chains. Advanced Functional Materials, 2014, 24, 3734-3744.	7.8	112
93	Additive-Free Hollow-Structured Co₃O₄ Nanoparticle Li-Ion Battery: The Origins of Irreversible Capacity Loss. ACS Nano, 2014, 8, 6701-6712.	7.3	94
94	Ultrasound-Induced Ordering in Poly(3-hexylthiophene): Role of Molecular and Process Parameters on Morphology and Charge Transport. ACS Applied Materials & Interfaces, 2013, 5, 2368-2377.	4.0	65
95	Solvent Based Hydrogen Bonding: Impact on Poly(3-hexylthiophene) Nanoscale Morphology and Charge Transport Characteristics. ACS Nano, 2013, 7, 5402-5413.	7.3	88
96	Simultaneous Study of Exciton Diffusion/Dissociation and Charge Transport in a Donorâ€Acceptor Bilayer: Pentacene on a C₆₀â€terminated Selfâ€Assembled Monolayer. Advanced Materials, 2013, 25, 6453-6458.	11.1	12
97	Exciton dissociation and charge trapping at poly(3-hexylthiophene)/phenyl-C61-butyric acid methyl ester bulk heterojunction interfaces: Photo-induced threshold voltage shifts in organic field-effect transistors and solar cells. Journal of Applied Physics, 2012, 111, 084908.	1.1	11
98	Imparting Chemical Stability in Nanoparticulate Silver via a Conjugated Polymer Casing Approach. ACS Applied Materials & Interfaces, 2012, 4, 4357-4365.	4.0	53
99	Lowâ€Threshold Photon Upconversion Capsules Obtained by Photoinduced Interfacial Polymerization. Angewandte Chemie - International Edition, 2012, 51, 11841-11844.	7.2	68
100	Exciton Dissociation and Charge Transport Properties at a Modified Donor/Acceptor Interface: Poly(3-hexylthiophene)/Thiol-ZnO Bulk Heterojunction Interfaces. Journal of Physical Chemistry C, 2012, 116, 4252-4258.	1.5	9
101	An approach to coreâ€“shell nanostructured materials with high colloidal and chemical stability: synthesis, characterization and mechanistic evaluation. Colloid and Polymer Science, 2012, 290, 1913-1926.	1.0	10
102	High Charge Carrier Mobility, Low Band Gap Donorâ€“Acceptor Benzothiadiazole-oligothiophene Based Polymeric Semiconductors. Chemistry of Materials, 2012, 24, 4123-4133.	3.2	76
103	Regioregularity and Intrachain Ordering: Impact on the Nanostructure and Charge Transport in Two-Dimensional Assemblies of Poly(3-hexylthiophene). Chemistry of Materials, 2012, 24, 2845-2853.	3.2	44
104	Synthesis and characterization of graft polymethacrylates containing conducting diphenyldithiophene for organic thinâ€film transistors. Journal of Polymer Science Part A, 2012, 50, 199-206.	2.5	10
105	Memory and Photovoltaic Elements in Organic Field Effect Transistors with Donor/Acceptor Planar-Hetero Junction Interfaces. Journal of Physical Chemistry C, 2012, 116, 9390-9397.	1.5	27
106	Conducting Channel Formation in Poly(3-hexylthiophene) Field Effect Transistors: Bulk to Interface. Journal of Physical Chemistry C, 2011, 115, 11719-11726.	1.5	17
107	Solvent Evaporation Induced Liquid Crystalline Phase in Poly(3-hexylthiophene). Journal of the American Chemical Society, 2011, 133, 7244-7247.	6.6	66
108	Preface to the <i>Chemistry of Materials</i> Special Issue on Ï€-Functional Materials. Chemistry of Materials, 2011, 23, 309-309.	3.2	51

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109	Electrical Contact Properties between the Accumulation Layer and Metal Electrodes in Ultrathin Poly(3-hexylthiophene)(P3HT) Field Effect Transistors. ACS Applied Materials & Interfaces, 2011, 3, 1574-1580.	4.0	31
110	Synthesis of electroactive polystyrene derivatives paraâ€substituted with Ï€â€conjugated oligothiophene via postgrafting functionalization. Journal of Polymer Science Part A, 2011, 49, 1155-1162.	2.5	16
111	Tunable Crystallinity in Regioregular Poly(3â€Hexylthiophene) Thin Films and Its Impact on Field Effect Mobility. Advanced Functional Materials, 2011, 21, 2652-2659.	7.8	115
112	The Evolution Study Of Thin Film Structure During The Film Formation. , 2010, , .		0
113	Investigation of Solubilityâ^'Field Effect Mobility Orthogonality in Substituted Phenyleneâ^'Thiophene Co-oligomers. Chemistry of Materials, 2007, 19, 4676-4681.	3.2	27
114	Plastic electronic devices: From materials design to device applications. Bell Labs Technical Journal, 2005, 10, 87-105.	0.7	62
115	Polymers, Photoresponsive (in Electronic Applications). , 2003, , 723-744.		2
116	APPLIED PHYSICS: Testing the Limits for Resists. Science, 2002, 297, 349-350.	6.0	4
117	Nanoporous Ultralow Dielectric Constant Organosilicates Templated by Triblock Copolymers. Chemistry of Materials, 2002, 14, 369-374.	3.2	130
118	Molecular Templating of Nanoporous Ultralow Dielectric Constant (â‰ˆ1.5) Organosilicates by Tailoring the Microphase Separation of Triblock Copolymers. Chemistry of Materials, 2001, 13, 2762-2764.	3.2	98
119	Radiation chemistry of polymeric materials: novel chemistry and applications for microlithography. Polymer International, 1999, 48, 1053-1059.	1.6	39
120	Organic Materials Challenges for 193 nm Imaging. Accounts of Chemical Research, 1999, 32, 659-667.	7.6	72
121	Influence of Polymer Structure on the Miscibility of Photoacid Generators. Chemistry of Materials, 1994, 6, 295-301.	3.2	23
122	Synthesis and evaluation of copolymers of (tert-butoxycarbonyloxy)styrene and (2-nitrobenzyl)styrene sulfonates: single-component chemically amplified deep-UV imaging materials. Chemistry of Materials, 1992, 4, 837-842.	3.2	34
123	Synthesis and characterization of poly[4-((tert-butoxycarbonyl)oxy)styrene-sulfone]. Chemistry of Materials, 1991, 3, 660-667.	3.2	10
124	Chemical amplification mechanisms for microlithography. Chemistry of Materials, 1991, 3, 394-407.	3.2	217
125	Design, synthesis, characterization, and use of all-organic, nonionic photogenerators of acid. Chemistry of Materials, 1991, 3, 462-471.	3.2	35
126	<title>Preliminary lithographic characteristics of an all-organic chemically amplified resist formulation for single-layer deep-UV lithography</title>. , 1991, , .		21

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127	An overview of resist processing for deep-UV lithography.. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 1991, 4, 299-318.	0.1	33
128	Polymer materials for microlithography. Chemical Reviews, 1989, 89, 1273-1289.	23.0	146