Gregory A Sotzing

List of Publications by Year
in descending order

126 papers	7,354 citations	57758 44 h-index	56724 83 g-index
129 all docs	129 docs citations	129 times ranked	7050 citing authors

#	Article	IF	Citations
1	Electrochromic Fabric Displays from a Robust, Openâ€Air Fabrication Technique. Advanced Materials Technologies, 2022, 7, 2100548.	5.8	16
2	Flexible polyolefin dielectric by strategic design of organic modules for harsh condition electrification. Energy and Environmental Science, 2022, 15, 1307-1314.	30.8	56
3	High dielectric constant and high breakdown strength polyimide <i>via</i> tin complexation of the polyamide acid precursor. RSC Advances, 2022, 12, 9095-9100.	3.6	7
4	Improving the Rotational Freedom of Polyetherimide: Enhancement of the Dielectric Properties of a Commodity High-Temperature Polymer Using a Structural Defect. Chemistry of Materials, 2022, 34, 6553-6558.	6.7	22
5	Allâ€Organic Flexible Ferroelectret Nanogenerator with Fabricâ€Based Electrodes for Selfâ€Powered Body Area Networks. Small, 2021, 17, e2103161.	10.0	24
6	Long Vibrational Lifetime R-Selenocyanate Probes for Ultrafast Infrared Spectroscopy: Properties and Synthesis. Journal of Physical Chemistry B, 2021, 125, 8907-8918.	2.6	7
7	Dielectric Polymers Tolerant to Electric Field and Temperature Extremes: Integration of Phenomenology, Informatics, and Experimental Validation. ACS Applied Materials & Interfaces, 2021, 13, 53416-53424.	8.0	20
8	Remarks on the Design of Flexible High-Temperature Polymer Dielectrics for Emerging Grand Electrification - Exemplified by Poly(oxa)norbornenes. IEEE Transactions on Dielectrics and Electrical Insulation, 2021, 28, 1468-1470.	2.9	5
9	Allâ€Organic Flexible Ferroelectret Nanogenerator with Fabricâ€Based Electrodes for Selfâ€Powered Body Area Networks (Small 33/2021). Small, 2021, 17, 2170170.	10.0	0
10	Flexible cyclic-olefin with enhanced dipolar relaxation for harsh condition electrification. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	22
11	Deep Well Trapping of Hot Carriers in a Hexagonal Boron Nitride Coating of Polymer Dielectrics. ACS Applied Materials & Interfaces, 2021, 13, 60393-60400.	8.0	5
12	Frequency-dependent dielectric constant prediction of polymers using machine learning. Npj Computational Materials, 2020, 6, .	8.7	75
13	Colorless to black electrochromic devices using subtractive color mixing of two electrochromes: A conjugated polymer with a small organic molecule. Organic Electronics, 2020, 84, 105748.	2.6	19
14	Molecular Engineering: Flexible Temperatureâ€Invariant Polymer Dielectrics with Large Bandgap (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10 T	21.0	17
15	Rollâ€toâ€Roll Production of Novel Largeâ€Area Piezoelectric Films for Transparent, Flexible, and Wearable Fabric Loudspeakers. Advanced Materials Technologies, 2020, 5, 2000296.	5.8	13
16	All-organic flexible fabric antenna for wearable electronics. Journal of Materials Chemistry C, 2020, 8, 5662-5667.	5.5	43
17	Flexible Temperatureâ€Invariant Polymer Dielectrics with Large Bandgap. Advanced Materials, 2020, 32, e2000499.	21.0	128
18	Graphene and Poly(3,4-ethylene dioxythiophene):Poly(4-styrenesulfonate) on Nonwoven Fabric as a Room Temperature Metal and Its Application as Dry Electrodes for Electrocardiography. ACS Applied Materials & Interfaces, 2019, 11, 32339-32345.	8.0	23

#	ARTICLE	IF	CITATIONS
19	Dipole-relaxation dynamics in a modified polythiourea with high dielectric constant for energy storage applications. Applied Physics Letters, 2019, 115, .	3.3	18
20	High energy density and high efficiency all-organic polymers with enhanced dipolar polarization. Journal of Materials Chemistry A, 2019, 7, 15026-15030.	10.3	72
21	Snâ€Polyester/Polyimide Hybrid Flexible Freeâ€Standing Film as a Tunable Dielectric Material. Macromolecular Rapid Communications, 2019, 40, e1800679.	3.9	19
22	Organometallic-Organic Hybrid System as Flexible Dielectric Material. , 2018, , .		0
23	A material genome approach towards exploration of Zn and Cd coordination complex polyester as dielectrics: Design, synthesis and characterization. Polymer, 2018, 159, 95-105.	3.8	7
24	Electronic Structure of Polymer Dielectrics: The Role of Chemical and Morphological Complexity. Chemistry of Materials, 2018, 30, 7699-7706.	6.7	26
25	Tin-Polyester/Polyimide Hybrid System As Flexible Free- Standing Film with Tunable Dielectric Constant for Energy Storage Application. ECS Meeting Abstracts, 2018, , .	0.0	0
26	A rational co-design approach to the creation of new dielectric polymers with high energy density. IEEE Transactions on Dielectrics and Electrical Insulation, 2017, 24, 732-743.	2.9	26
27	Phase Segregation of PEDOT:PSS on Textile to Produce Materials of >10 A mm^{âˆ’2} Current Carrying Capacity. Macromolecular Materials and Engineering, 2017, 302, 1600348.	3.6	38
28	Screen-Printed PEDOT:PSS Electrodes on Commercial Finished Textiles for Electrocardiography. ACS Applied Materials & Interfaces, 2017, 9, 37524-37528.	8.0	119
29	A Rational Co-Design Approach for Next Generation Dielectric Materials with the Transition Metal Containing Coordination Polymers. ECS Meeting Abstracts, 2017, , .	0.0	0
30	Optimization of Organotin Polymers for Dielectric Applications. ACS Applied Materials & Interfaces, 2016, 8, 21270-21277.	8.0	33
31	PEDOT:PSS â€œWiresâ€•Printed on Textile for Wearable Electronics. ACS Applied Materials & Interfaces, 2016, 8, 26998-27005.	8.0	117
32	Rational Coâ€Design of Polymer Dielectrics for Energy Storage. Advanced Materials, 2016, 28, 6277-6291.	21.0	149
33	Rational design and synthesis of polythioureas as capacitor dielectrics. Journal of Materials Chemistry A, 2015, 3, 14845-14852.	10.3	81
34	Rational Design of Organotin Polyesters. Macromolecules, 2015, 48, 2422-2428.	4.8	54
35	Poly(dimethyltin glutarate) as a Prospective Material for High Dielectric Applications. Advanced Materials, 2015, 27, 346-351.	21.0	64
36	Nanostructured ion gels from liquid crystalline block copolymers and gold nanoparticles in ionic liquids: manifestation of mechanical and electrochemical properties. Journal of Materials Chemistry C, 2015, 3, 399-408.	5.5	17

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37	Preparation of conductive graphene/graphite infused fabrics using an interface trapping method. Carbon, 2015, 81, 38-42.	10.3	55
38	Colorâ€Tuning Neutrality for Flexible Electrochromics Via a Singleâ€Layer Dual Conjugated Polymer Approach. Advanced Materials, 2014, 26, 8004-8009.	21.0	20
39	Furan/imide Dielsâ€"Alder polymers as dielectric materials. Journal of Applied Polymer Science, 2014, 131, .	2.6	9
40	Electrochromic properties as a function of electrolyte on the performance of electrochromic devices consisting of a single-layer polymer. Organic Electronics, 2014, 15, 1378-1386.	2.6	44
41	Polyelectrolytes exceeding ITO flexibility in electrochromic devices. Journal of Materials Chemistry C, 2014, 2, 9874-9881.	5.5	23
42	Orthogonal alignment of DNA using hexafluoroisopropanol as solvent for film castings. RSC Advances, 2014, 4, 39798-39801.	3.6	9
43	Solid-state electrochromic devices: relationship of contrast as a function of device preparation parameters. Journal of Materials Chemistry C, 2014, 2, 2510-2516.	5.5	46
44	Neutral color tuning of polymer electrochromic devices using an organic dye. Chemical Communications, 2014, 50, 8167.	4.1	17
45	Acrylated Poly(3,4-propylenedioxythiophene) for Enhancement of Lifetime and Optical Properties for Single-Layer Electrochromic Devices. ACS Applied Materials & Interfaces, 2014, 6, 1734-1739.	8.0	68
46	Rational design of all organic polymer dielectrics. Nature Communications, 2014, 5, 4845.	12.8	259
47	A review of organic electrochromic fabric devices. Coloration Technology, 2014, 130, 73-80.	1.5	98
48	Rationally Designed Polyimides for High-Energy Density Capacitor Applications. ACS Applied Materials & Interfaces, 2014, 6, 10445-10451.	8.0	98
49	Dielsâ€"Alder polysulfones as dielectric materials: Computational guidance & synthesis. Polymer, 2014, 55, 3573-3578.	3.8	9
50	Effect of Incorporating Aromatic and Chiral Groups on the Dielectric Properties of Poly(dimethyltin) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	3.9	29
51	Experimental observation on the mixing systems and ways to significantly enhance the conductivity of PEDOT-sulfonated poly(imide) aqueous dispersion. Microelectronic Engineering, 2013, 111, 7-13.	2.4	1
52	Green and Blue Electrochromic Polymers from Processable Siloxane Precursors. Chemistry of Materials, 2013, 25, 2898-2904.	6.7	12
53	Enhancement of poly(3,4-ethylenedioxy thiophene)/poly(styrene sulfonate) properties by poly(vinyl) Tj ETQq1 1 0.784314 rgBT /Overlock Materials Science: Materials in Electronics, 2013, 24, 2897-2905.	2.2	22
54	Color tuning of black for electrochromic polymers using precursor blends. Chemical Communications, 2013, 49, 5192.	4.1	44

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55	Effects of the addition of anionic surfactant during template polymerization of conducting polymers containing pedot with sulfonated poly(imide) and poly(styrene sulfonate) as templates for nano-thin film applications. Synthetic Metals, 2013, 179, 10-17.	3.9	15
56	Preparation and characterization of conductive polyimide-graft-polyaniline. Microelectronic Engineering, 2013, 104, 22-28.	2.4	4
57	Structureâ€"property relationship of polyimides based on pyromellitic dianhydride and shortâ€chain aliphatic diamines for dielectric material applications. Journal of Applied Polymer Science, 2013, 130, 1276-1280.	2.6	34
58	Modification of Novel Conductive PEDOT:Sulfonated Polyimide Nano-Thin Films by Anionic Surfactant and Poly(vinyl alcohol) for Electronic Applications. Journal of Electronic Materials, 2013, 42, 3471-3480.	2.2	5
59	Solidâ€State Highâ€Throughput Screening for Color Tuning of Electrochromic Polymers. Advanced Materials, 2013, 25, 6256-6260.	21.0	31
60	Secondary dopants modified PEDOT-sulfonated poly(imide)s for high-temperature range application. Journal of Applied Polymer Science, 2013, 128, 3840-3845.	2.6	6
61	Modified processing techniques of a DNA biopolymer for enhanced performance in photonics applications. Applied Physics Letters, 2012, 101, .	3.3	23
62	Response of varactors containing DNA-conjugated polymer. , 2012, , .		0
63	Sulfonated polyimide as a thermally stable template for water processable conductive polymers. Synthetic Metals, 2012, 162, 941-947.	3.9	9
64	Surface grafting of electrochemically crosslinked poly(3,4-ethylenedioxythiophene) (PEDOT) brushes via surface-initiated ring-opening metathesis polymerization. European Polymer Journal, 2012, 48, 875-880.	5.4	4
65	A simple, low waste and versatile procedure to make polymer electrochromic devices. Journal of Materials Chemistry, 2011, 21, 11873.	6.7	56
66	Poly(3,4-propylenedioxythiophene)s as a Single Platform for Full Color Realization. Macromolecules, 2011, 44, 2415-2417.	4.8	48
67	Inkjet-printed gold nanoparticle electrochemical arrays on plastic. Application to immunodetection of a cancer biomarker protein. Physical Chemistry Chemical Physics, 2011, 13, 4888.	2.8	132
68	The effects of coloured base fabric on electrochromic textile. Coloration Technology, 2011, 127, 167-172.	1.5	27
69	Fabrication of DNAâ€"magnetite hybrid nanofibers for water detoxification. Materials Letters, 2011, 65, 219-221.	2.6	14
70	Polymer-mediated cyclodehydration of alditols and ketohexoses. Carbohydrate Research, 2011, 346, 1662-1670.	2.3	13
71	Polymer-Mediated Reactions. A Nazarov-Like Cyclization. Synlett, 2011, 2011, 2195-2199.	1.8	0
72	Preparation of Conjugated Polymers Inside Assembled Solidâ€State Devices. Advanced Materials, 2010, 22, 1379-1382.	21.0	54

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73	Variable-color poly(3,4-propylenedioxythiophene) electrochromics from precursor polymers. Polymer, 2010, 51, 378-382.	3.8	21
74	Preparation of the thermally stable conducting polymer PEDOT â€“ Sulfonated poly(imide). Polymer, 2010, 51, 1231-1236.	3.8	56
75	Comparison of the thermally stable conducting polymers PEDOT, PANi, and PPy using sulfonated poly(imide) templates. Polymer, 2010, 51, 4472-4476.	3.8	37
76	Versatile synthesis of 3,4-b diheteropentalenes. Tetrahedron Letters, 2010, 51, 2089-2091.	1.4	14
77	Poly(terthiophene)s from copolymer precursors via solidâ€state oxidative conversion. Journal of Polymer Science Part A, 2010, 48, 756-763.	2.3	6
78	Conjugated polymers atypically prepared in water. Journal of Polymer Science Part A, 2010, 48, 2024-2031.	2.3	5
79	Facile chemical synthesis of DNA-doped PEDOT. Synthetic Metals, 2010, 160, 351-353.	3.9	27
80	Enhanced conductivity in sorbitol-treated PEDOTâ€“PSS. Observation of an in situ cyclodehydration reaction. Synthetic Metals, 2010, 160, 2284-2289.	3.9	27
81	Conductivity Trends of PEDOT-PSS Impregnated Fabric and the Effect of Conductivity on Electrochromic Textile. ACS Applied Materials & Interfaces, 2010, 2, 1588-1593.	8.0	191
82	All-Organic Electrochromic Spandex. ACS Applied Materials & Interfaces, 2010, 2, 296-300.	8.0	120
83	Stabilization of fluorophore in DNA thin films. Applied Physics Letters, 2009, 95, .	3.3	13
84	Electrospinning nanoribbons of a bioengineered silk-elastin-like protein (SELP) from water. Polymer, 2009, 50, 5828-5836.	3.8	57
85	Polythieno[3,4-b]thiophene as an Optically Transparent Ion-Storage Layer. Chemistry of Materials, 2009, 21, 3332-3336.	6.7	40
86	Gold Nanoparticles with Externally Controlled, Reversible Shifts of Local Surface Plasmon Resonance Bands. Langmuir, 2009, 25, 13120-13124.	3.5	46
87	Nanofiber Alignment on a Flexible Substrate: Hierarchical Order from Macro to Nano. ACS Applied Materials & Interfaces, 2009, 1, 2093-2097.	8.0	24
88	Solidâ€State Conversion of Processable 3,4â€Ethylenedioxythiophene (EDOT) Containing Poly(arylsilane) Precursors to <i>Ï€</i>â€Conjugated Conducting Polymers. Advanced Materials, 2008, 20, 1175-1178.	21.0	29
89	Photopatterned electrochromic conjugated polymer films via precursor approach. Polymer, 2008, 49, 3686-3692.	3.8	24
90	Preparation of Conductive Polypyrrole/Polyurethane Composite Foams by In situ Polymerization of Pyrrole. Chemistry of Materials, 2008, 20, 2574-2582.	6.7	86

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91	Poly(thieno[3,4-<i>b</i>]furan), a New Low Band Gap Polymer: Experiment and Theory. Macromolecules, 2008, 41, 7098-7108.	4.8	38
92	Enhanced fluorescence in electrospun dye-doped DNA nanofibers. Soft Matter, 2008, 4, 1448.	2.7	35
93	Nanopatterned Electrochromic Conjugated Poly(terthiophene)s via Thermal Nanoimprint Lithography of Precursor Polymer. Journal of Macromolecular Science - Pure and Applied Chemistry, 2007, 44, 1305-1309.	2.2	14
94	High contrast solid-state electrochromic devices from substituted 3,4-propylenedioxythiophenes using the dual conjugated polymer approach. Synthetic Metals, 2007, 157, 261-268.	3.9	38
95	Optimization, preparation, and electrical short evaluation for 30cm2 active area dual conjugated polymer electrochromic windows. Organic Electronics, 2007, 8, 367-381.	2.6	48
96	Chemical stability of conducting polymers: Friedelâ€“Crafts reactions of alcohols with poly(3,4-ethylenedioxythiophene) (PEDOT). Polymer, 2007, 48, 4328-4336.	3.8	4
97	Chemical reactions of the conducting polymer poly(3,4-ethylene dioxythiophene) and alcohols. Journal of Polymer Science Part A, 2007, 45, 2328-2333.	2.3	7
98	Poly(thieno[3,4-b]thiophene)s from Three Symmetrical Thieno[3,4-b]thiophene Dimers. Macromolecules, 2006, 39, 3118-3124.	4.8	36
99	Sorption of iodine by polyurethane and melamine-formaldehyde foams using iodine sublimation and iodine solutions. Polymer, 2006, 47, 2728-2740.	3.8	28
100	Poly(thieno[3,4-b]furan). A New Low Band Gap Conjugated Polymer. Macromolecules, 2006, 39, 2723-2725.	4.8	21
101	Micropatterned Polythiophene Nanofibers via Electrostatic Spinning and Photolithography. Materials Research Society Symposia Proceedings, 2006, 948, 1.	0.1	0
102	Optically Transparent Conducting Polymers from Fused Heterocycles. Materials Research Society Symposia Proceedings, 2006, 965, 1.	0.1	1
103	Poly(thieno[3,4-b]thiophene)âˆ’Poly(styrene sulfonate):Â A Low Band Gap, Water Dispersible Conjugated Polymer. Langmuir, 2005, 21, 10797-10802.	3.5	37
104	Water Dispersible Low Band Gap Conductive Polymer Based on Thieno[3,4-b]thiophene. Synthetic Metals, 2005, 152, 177-180.	3.9	22
105	Polymerization of Two Unsymmetrical Isomeric Monomers Based on Thieno[3,4-b]thiophene Containing Cyanovinylene Spacers. Chemistry of Materials, 2004, 16, 5644-5649.	6.7	17
106	Rapid Direct Nanowriting of Conductive Polymer via Electrochemical Oxidative Nanolithography. Journal of the American Chemical Society, 2004, 126, 9476-9477.	13.7	80
107	Oxidative Solid-State Cross-Linking of Polymer Precursors to Pattern Intrinsically Conducting Polymers. ACS Symposium Series, 2004, , 44-53.	0.5	2
108	Poly(thiophene)s Prepared via Electrochemical Solid-State Oxidative Cross-Linking. A Comparative Study. Macromolecules, 2004, 37, 4351-4359.	4.8	33

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109	Conductive Polymer Foams as Sensors for Volatile Amines. Chemistry of Materials, 2003, 15, 375-377.	6.7	43
110	Wiring of Enzymes to Electrodes by Ultrathin Conductive Polyion Underlayers:Â Enhanced Catalytic Response to Hydrogen Peroxide. Analytical Chemistry, 2003, 75, 4565-4571.	6.5	59
111	Conjugated Polymers via Electrochemical Polymerization of Thieno[3,4-b]thiophene (T34bT) and 3,4-Ethylenedioxythiophene (EDOT). Langmuir, 2003, 19, 9479-9485.	3.5	75
112	Intrinsically Conducting Polymer Networks of Poly(thiophene) via Solid-State Oxidative Cross-Linking of a Poly(norbornylene) Containing Terthiophene Moieties. Macromolecules, 2002, 35, 7293-7300.	4.8	56
113	Poly(thieno[3,4-b]thiophene):Â A p- and n-Dopable Polythiophene Exhibiting High Optical Transparency in the Semiconducting State. Macromolecules, 2002, 35, 7281-7286.	4.8	103
114	Poly(thieno[3,4-b]thiophene). A New Stable Low Band Gap Conducting Polymer. Macromolecules, 2001, 34, 5746-5747.	4.8	101
115	Highly Sensitive Detection and Discrimination of Biogenic Amines Utilizing Arrays of Polyaniline/Carbon Black Composite Vapor Detectors. Chemistry of Materials, 2000, 12, 593-595.	6.7	95
116	Cross-Reactive Chemical Sensor Arrays. Chemical Reviews, 2000, 100, 2595-2626.	47.7	1,194
117	Preparation and Properties of Vapor Detector Arrays Formed from Poly(3,4-ethylenedioxy)thiopheneâˆ'Poly(styrene sulfonate)/Insulating Polymer Composites. Analytical Chemistry, 2000, 72, 3181-3190.	6.5	112
118	Electroactive and luminescent polymers: new fluorene-heterocycle-based hybrids. Journal of Materials Chemistry, 1999, 9, 2189-2200.	6.7	113
119	Low Band Gap Cyanovinylene Polymers Based on Ethylenedioxythiophene. Macromolecules, 1998, 31, 3750-3752.	4.8	74
120	High Contrast Ratio and Fast-Switching Dual Polymer Electrochromic Devices. Chemistry of Materials, 1998, 10, 2101-2108.	6.7	414
121	Multiply Colored Electrochromic Carbazole-Based Polymers. Chemistry of Materials, 1997, 9, 1578-1587.	6.7	188
122	Poly(3,4-ethylenedioxythiophene) (PEDOT) prepared via electrochemical polymerization of EDOT, 2,2?-Bis(3,4-ethylenedioxythiophene) (BiEDOT), and their TMS derivatives. Advanced Materials, 1997, 9, 795-798.	21.0	170
123	Poly[bis(pyrrol-2-yl)arylenes]:Â Conducting Polymers from Low Oxidation Potential Monomers Based on Pyrrole via Electropolymerization. Macromolecules, 1996, 29, 1679-1684.	4.8	57
124	Electrochromic Conducting Polymers via Electrochemical Polymerization of Bis(2-(3,4-ethylenedioxy)thienyl) Monomers. Chemistry of Materials, 1996, 8, 882-889.	6.7	328
125	Rapid switching solid state electrochromic devices based on complementary conducting polymer films. Advanced Materials, 1996, 8, 808-811.	21.0	139
126	Poly[1,4-bis(pyrrol-2-yl)phenylene]: A New Electrically Conducting and Electroactive Polymer Containing the Bipyrrole-Phenylene Repeat Unit. Macromolecules, 1994, 27, 7225-7227.	4.8	48