Siegfried Bauer

List of Publications by Year
in descending order

212 papers	22,314 citations	10389 72 h-index	8630 146 g-index
227 all docs	227 docs citations	227 times ranked	21175 citing authors

#	Article	IF	Citations
1	An ultra-lightweight design for imperceptible plastic electronics. Nature, 2013, 499, 458-463.	27.8	2,133
2	Ultrathin and lightweight organic solar cells with high flexibility. Nature Communications, 2012, 3, 770.	12.8	1,452
3	Organic Nonvolatile Memory Transistors for Flexible Sensor Arrays. Science, 2009, 326, 1516-1519.	12.6	888
4	Ultrathin, highly flexible and stretchable PLEDs. Nature Photonics, 2013, 7, 811-816.	31.4	832
5	Flexible high power-per-weight perovskite solar cells with chromium oxideâ€“metal contacts for improved stability in air. Nature Materials, 2015, 14, 1032-1039.	27.5	807
6	25th Anniversary Article: A Soft Future: From Robots and Sensor Skin to Energy Harvesters. Advanced Materials, 2014, 26, 149-162.	21.0	732
7	Ferroelectrets: Soft Electroactive Foams for Transducers. Physics Today, 2004, 57, 37-43.	0.3	475
8	Stretching Dielectric Elastomer Performance. Science, 2010, 330, 1759-1761.	12.6	471
9	Materials for stretchable electronics. MRS Bulletin, 2012, 37, 207-213.	3.5	397
10	Green and biodegradable electronics. Materials Today, 2012, 15, 340-346.	14.2	389
11	Biocompatible and Biodegradable Materials for Organic Fieldâ€Effect Transistors. Advanced Functional Materials, 2010, 20, 4069-4076.	14.9	387
12	Indigo â€•A Natural Pigment for High Performance Ambipolar Organic Field Effect Transistors and Circuits. Advanced Materials, 2012, 24, 375-380.	21.0	383
13	Harnessing snap-through instability in soft dielectrics to achieve giant voltage-triggered deformation. Soft Matter, 2012, 8, 285-288.	2.7	373
14	Instant tough bonding of hydrogels for soft machines and electronics. Science Advances, 2017, 3, e1700053.	10.3	359
15	Dielectric Elastomer Generators: How Much Energy Can Be Converted?. IEEE/ASME Transactions on Mechatronics, 2011, 16, 33-41.	5.8	303
16	Giant voltage-induced deformation in dielectric elastomers near the verge of snap-through instability. Journal of the Mechanics and Physics of Solids, 2013, 61, 611-628.	4.8	298
17	Energy minimization for self-organized structure formation and actuation. Applied Physics Letters, 2007, 90, 081916.	3.3	292
18	Resilient yet entirely degradable gelatin-based biogels for soft robots and electronics. Nature Materials, 2020, 19, 1102-1109.	27.5	278

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19	Current versus gate voltage hysteresis in organic field effect transistors. Monatshefte FÃ¼r Chemie, 2009, 140, 735-750.	1.8	269
20	Hydrogen-bonds in molecular solids â€“ from biological systems to organic electronics. Journal of Materials Chemistry B, 2013, 1, 3742.	5.8	264
21	Standards for dielectric elastomer transducers. Smart Materials and Structures, 2015, 24, 105025.	3.5	245
22	Printable Ferroelectric PVDF/PMMA Blend Films with Ultralow Roughness for Low Voltage Nonâ€Volatile Polymer Memory. Advanced Functional Materials, 2009, 19, 2812-2818.	14.9	239
23	Hydrogenâ€Bonded Semiconducting Pigments for Airâ€Stable Fieldâ€Effect Transistors. Advanced Materials, 2013, 25, 1563-1569.	21.0	218
24	High-Performance Ambipolar Pentacene Organic Field-Effect Transistors on Poly(vinyl alcohol) Organic Gate Dielectric. Advanced Materials, 2005, 17, 2315-2320.	21.0	215
25	An Allâ€Printed Ferroelectric Active Matrix Sensor Network Based on Only Five Functional Materials Forming a Touchless Control Interface. Advanced Materials, 2011, 23, 2069-2074.	21.0	215
26	Nonvolatile organic field-effect transistor memory element with a polymeric gate electret. Applied Physics Letters, 2004, 85, 5409-5411.	3.3	213
27	Sophisticated skin. Nature Materials, 2013, 12, 871-872.	27.5	210
28	RÃ¶ntgenâ€™s electrode-free elastomer actuators without electromechanical pull-in instability. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 4505-4510.	7.1	203
29	Model of dissipative dielectric elastomers. Journal of Applied Physics, 2012, 111, .	2.5	200
30	Lowâ€Voltage Organic Thinâ€Film Transistors with Highâ€k Nanocomposite Gate Dielectrics for Flexible Electronics and Optothermal Sensors. Advanced Materials, 2007, 19, 2241-2245.	21.0	193
31	Thermal wave probing of pyroelectric distributions in the surface region of ferroelectric materials: A new method for the analysis. Journal of Applied Physics, 1992, 72, 5363-5370.	2.5	188
32	Microstorms in Cellular Polymers: A Route to Soft Piezoelectric Transducer Materials with Engineered Macroscopic Dipoles. ChemPhysChem, 2005, 6, 1014-1025.	2.1	187
33	Flexible active-matrix cells with selectively poled bifunctional polymer-ceramic nanocomposite for pressure and temperature sensing skin. Journal of Applied Physics, 2009, 106, .	2.5	181
34	Flexible ferroelectret field-effect transistor for large-area sensor skins and microphones. Applied Physics Letters, 2006, 89, 073501.	3.3	177
35	Reversible and irreversible degradation of organic solar cell performance by oxygen. Solar Energy, 2011, 85, 1238-1249.	6.1	174
36	Poled polymers for sensors and photonic applications. Journal of Applied Physics, 1996, 80, 5531-5558.	2.5	172

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37	Directional, passive liquid transport: the Texas horned lizard as a model for a biomimetic â€˜liquid diodeâ€™. Journal of the Royal Society Interface, 2015, 12, 20150415.	3.4	168
38	Photoresponse of organic field-effect transistors based on conjugated polymer/fullerene blends. Organic Electronics, 2006, 7, 188-194.	2.6	165
39	Large and broadband piezoelectricity in smart polymer-foam space-charge electrets. Applied Physics Letters, 2000, 77, 3827-3829.	3.3	162
40	Flexible-foam-based capacitive sensor arrays for object detection at low cost. Applied Physics Letters, 2008, 92, .	3.3	157
41	Exotic materials for bio-organic electronics. Journal of Materials Chemistry, 2011, 21, 1350-1361.	6.7	157
42	Self-organized minimum-energy structures for dielectric elastomer actuators. Applied Physics A: Materials Science and Processing, 2006, 85, 141-143.	2.3	155
43	Arrays of Ultracompliant Electrochemical Dry Gel Cells for Stretchable Electronics. Advanced Materials, 2010, 22, 2065-2067.	21.0	151
44	An Imperceptible Plastic Electronic Wrap. Advanced Materials, 2015, 27, 34-40.	21.0	145
45	Controlled inflation of voids in cellular polymer ferroelectrets: Optimizing electromechanical transducer properties. Applied Physics Letters, 2004, 84, 392-394.	3.3	141
46	Fabrication and characterization of solution-processed methanofullerene-based organic field-effect transistors. Journal of Applied Physics, 2005, 97, 083714.	2.5	137
47	Dielectric barrier microdischarges: Mechanism for the charging of cellular piezoelectric polymers. Journal of Applied Physics, 2002, 91, 5283-5287.	2.5	131
48	Indigo and Tyrian Purple â€“ From Ancient Natural Dyes to Modern Organic Semiconductors. Israel Journal of Chemistry, 2012, 52, 540-551.	2.3	130
49	Piezo- and pyroelectricity of a polymer-foam space-charge electret. Journal of Applied Physics, 2001, 89, 4503-4511.	2.5	129
50	High-mobility n-channel organic field-effect transistors based on epitaxially grown C60 films. Organic Electronics, 2005, 6, 105-110.	2.6	129
51	Environmentally sustainable organic field effect transistors. Organic Electronics, 2010, 11, 1974-1990.	2.6	129
52	Capacitive extensometry for transient strain analysis of dielectric elastomer actuators. Applied Physics Letters, 2008, 92, .	3.3	126
53	Stretch dependence of the electrical breakdown strength and dielectric constant of dielectric elastomers. Smart Materials and Structures, 2013, 22, 104012.	3.5	126
54	Natural rubber for sustainable high-power electrical energy generation. RSC Advances, 2014, 4, 27905-27913.	3.6	125

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55	High-mobility pentacene organic field-effect transistors with a high-dielectric-constant fluorinated polymer film gate dielectric. Applied Physics Letters, 2005, 86, 242902.	3.3	115
56	Charged cellular polymers with "ferroelectretic" behavior. IEEE Transactions on Dielectrics and Electrical Insulation, 2004, 11, 255-263.	2.9	114
57	A method for the measurement of the thermal, dielectric, and pyroelectric properties of thin pyroelectric films and their applications for integrated heat sensors. Journal of Applied Physics, 1990, 68, 6361-6367.	2.5	113
58	Organic field-effect transistors and memory elements using deoxyribonucleic acid (DNA) gate dielectric. Organic Electronics, 2007, 8, 648-654.	2.6	112
59	Ferroelectric Polarization in Nanocrystalline Hydroxyapatite Thin Films on Silicon. Scientific Reports, 2013, 3, 2215.	3.3	112
60	Frequency dependent dielectric and mechanical behavior of elastomers for actuator applications. Journal of Applied Physics, 2009, 106, .	2.5	108
61	En-face scanning optical coherence tomography with ultra-high resolution for material investigation. Optics Express, 2005, 13, 1015.	3.4	107
62	Method for measuring energy generation and efficiency of dielectric elastomer generators. Applied Physics Letters, 2011, 99, .	3.3	106
63	Mobile Ionic Impurities in Poly(vinyl alcohol) Gate Dielectric: Possible Source of the Hysteresis in Organic Fieldâ€Effect Transistors. Advanced Materials, 2008, 20, 1018-1022.	21.0	103
64	Confining metal-halide perovskites in nanoporous thin films. Science Advances, 2017, 3, e1700738.	10.3	103
65	Anodized Aluminum Oxide Thin Films for Roomâ€Temperatureâ€Processed, Flexible, Lowâ€Voltage Organic Nonâ€Volatile Memory Elements with Excellent Charge Retention. Advanced Materials, 2011, 23, 4892-4896.	21.0	102
66	Natural resin shellac as a substrate and a dielectric layer for organic field-effect transistors. Green Chemistry, 2013, 15, 1473.	9.0	99
67	Large piezoelectric effects in charged, heterogeneous fluoropolymer electrets. Applied Physics A: Materials Science and Processing, 2000, 70, 1-4.	2.3	98
68	Intrinsically stretchable and rechargeable batteries for self-powered stretchable electronics. Journal of Materials Chemistry A, 2013, 1, 5505.	10.3	98
69	Intermolecular hydrogen-bonded organic semiconductorsâ€”Quinacridone versus pentacene. Applied Physics Letters, 2012, 101, .	3.3	89
70	Performance of dissipative dielectric elastomer generators. Journal of Applied Physics, 2012, 111, .	2.5	85
71	Separate contributions to the pyroelectricity in poly(vinylidene fluoride) from the amorphous and crystalline phases, as well as from their interface. Journal of Applied Physics, 1999, 85, 3282-3288.	2.5	81
72	Ambipolar organic field effect transistors and inverters with the natural material Tyrian Purple. AIP Advances, 2011, 1, .	1.3	78

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73	Current practice in space charge and polarization profile measurements using thermal techniques. IEEE Transactions on Dielectrics and Electrical Insulation, 2003, 10, 883-902.	2.9	74
74	Pyroelectric, piezoelectric, and photoeffects in hydroxyapatite thin films on silicon. Applied Physics Letters, 2011, 98, 123703.	3.3	70
75	Flexible large area ferroelectret sensors for location sensitive touchpads. Applied Physics Letters, 2008, 92, .	3.3	68
76	Nonlinear bending deformation of soft electrets and prospects for engineering flexoelectricity and transverse (d₃₁) piezoelectricity. Soft Matter, 2019, 15, 127-148.	2.7	64
77	Vacuum-processed polyethylene as a dielectric for low operating voltage organic field effect transistors. Organic Electronics, 2012, 13, 919-924.	2.6	63
78	Selective poling of nonlinear optical polymer films by means of a monoenergetic electron beam. Applied Physics Letters, 1994, 64, 22-24.	3.3	62
79	Pyroelectrical investigation of the dipole orientation in nonlinear optical polymers during and after photoinduced poling. Journal of Applied Physics, 1994, 76, 2627-2635.	2.5	59
80	Ultraâ€thin anodic alumina capacitor films for plastic electronics. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 813-818.	1.8	59
81	Comparison of quasiâ€phaseâ€matching geometries for secondâ€harmonic generation in poled polymer channel waveguides at 1.5 Î¼m. Applied Physics Letters, 1996, 68, 1183-1185.	3.3	57
82	Vacuumâ€Processed Polyanilineâ€“C₆₀ Organic Field Effect Transistors. Advanced Materials, 2008, 20, 3887-3892.	21.0	55
83	A Lesson from Plants: Highâ€Speed Soft Robotic Actuators. Advanced Science, 2020, 7, 1903391.	11.2	55
84	Charge stability of pulsed-laser deposited polytetrafluoroethylene film electrets. Applied Physics Letters, 1998, 73, 2941-2943.	3.3	50
85	Pyroelectric polymer electrets. IEEE Transactions on Dielectrics and Electrical Insulation, 1996, 3, 647-676.	2.9	49
86	Unusual electromechanical effects in organic semiconductor Schottky contacts: Between piezoelectricity and electrostriction. Applied Physics Letters, 2005, 87, 163501.	3.3	49
87	Highâ€Frequency, Conformable Organic Amplifiers. Advanced Materials, 2016, 28, 3298-3304.	21.0	49
88	Optimized poling of nonlinear optical polymers based on dipoleâ€orientation and dipoleâ€relaxation studies. Journal of Applied Physics, 1994, 75, 7211-7219.	2.5	48
89	Low-dielectric-constant cross-linking polymers: Film electrets with excellent charge stability. Applied Physics Letters, 1999, 75, 3998-4000.	3.3	48
90	High mobility, low voltage operating C60 based n-type organic field effect transistors. Synthetic Metals, 2011, 161, 2058-2062.	3.9	48

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91	High-performance electromechanical transduction using laterally-constrained dielectric elastomers part I: Actuation processes. Journal of the Mechanics and Physics of Solids, 2017, 105, 81-94.	4.8	46
92	Preparation and characterization of novel piezoelectric and pyroelectric polymer electrets. IEEE Transactions on Dielectrics and Electrical Insulation, 2000, 7, 578-586.	2.9	44
93	Polarization distribution of thermally poled PVDF films, measured with a heat wave method (LIMM). Ferroelectrics, 1991, 118, 363-378.	0.6	43
94	From Playroom to Lab: Tough Stretchable Electronics Analyzed with a Tabletop Tensile Tester Made from Toyâ€Bricks. Advanced Science, 2016, 3, 1500396.	11.2	42
95	Imperceptible organic electronics. MRS Bulletin, 2017, 42, 124-130.	3.5	42
96	Scanning electroâ€optical and pyroelectrical microscopy for the investigation of polarization patterns in poled polymers. Applied Physics Letters, 1993, 63, 1724-1726.	3.3	41
97	Pyroelectrical investigation of charged and poled nonlinear optical polymers. Journal of Applied Physics, 1994, 75, 5306-5315.	2.5	40
98	Electric-field-tuned color in photonic crystal elastomers. Applied Physics Letters, 2012, 100, 101902.	3.3	40
99	Photothermal poling of nonlinear optical polymer films. Applied Physics Letters, 1994, 64, 2770-2772.	3.3	39
100	Optical properties of a metal film and its application as an infrared absorber and as a beam splitter. American Journal of Physics, 1992, 60, 257-261.	0.7	37
101	Elastic and electromechanical properties of polypropylene foam ferroelectrets. Applied Physics Letters, 2005, 86, 031910.	3.3	36
102	Natural and nature-inspired semiconductors for organic electronics. Proceedings of SPIE, 2011, , .	0.8	35
103	Integrated pyroelectric detector arrays with the sensor material PVDF. Ferroelectrics, 1990, 109, 223-228.	0.6	34
104	Characterization of materials for integrated pyroelectric sensors. Sensors and Actuators A: Physical, 1991, 26, 407-411.	4.1	34
105	Electrically actuated elastomers for electroâ€“optical modulators. Applied Physics B: Lasers and Optics, 2006, 85, 7-10.	2.2	33
106	A simple technique to interface pyroelectric materials with silicon substrates for infrared detection. Ferroelectrics, Letters Section, 1989, 9, 155-160.	1.0	32
107	Lightâ€and Touchâ€Point Localization using Flexible Large Area Organic Photodiodes and Elastomer Waveguides. Advanced Materials, 2009, 21, 3510-3514.	21.0	30
108	User-friendly, miniature biosensor flow cell for fragile high fundamental frequency quartz crystal resonators. Biosensors and Bioelectronics, 2009, 24, 2643-2648.	10.1	30

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109	Electrical response of highly ordered organic thin film metal-insulator-semiconductor devices. Journal of Applied Physics, 2009, 106, .	2.5	29
110	Built To Disappear. ACS Nano, 2014, 8, 5380-5382.	14.6	29
111	Polymer waveguides with optimized overlap integral for modal dispersion phase-matching. Applied Physics Letters, 1997, 70, 3347-3349.	3.3	28
112	Method for the analysis of thermal-pulse data. Physical Review B, 1993, 47, 11049-11055.	3.2	27
113	Pulsed-laser-deposited and plasma-polymerized polytetrafluoroethylene (PTFE)-like thin films: A comparative study on PTFE-specific properties. Journal of Polymer Science, Part B: Polymer Physics, 1999, 37, 2115-2125.	2.1	27
114	Piezo-, pyro- and ferroelectrets: soft transducer materials for electromechanical energy conversion. IEEE Transactions on Dielectrics and Electrical Insulation, 2006, 13, 953-962.	2.9	27
115	Plasma-deposited parylene-like thin films: process and material properties. Surface and Coatings Technology, 2003, 174-175, 124-130.	4.8	26
116	Video-speed detection of the absolute position of a light point on a large-area photodetector based on luminescent waveguides. Optics Express, 2010, 18, 2209.	3.4	26
117	Pulsed electrothermal technique for measuring the thermal diffusivity of dielectric films on conducting substrates. Journal of Applied Physics, 1996, 80, 6124-6128.	2.5	25
118	Small-molecule vacuum processed melamine-C60, organic field-effect transistors. Organic Electronics, 2009, 10, 408-415.	2.6	25
119	Nonlinear optical sideâ€chain polymer with high thermal stability and its pyroelectric thermal analysis. Applied Physics Letters, 1993, 63, 2018-2020.	3.3	24
120	Phase-shift interference microscope for the investigation of dipole-orientation distributions. Optics Letters, 1995, 20, 816.	3.3	23
121	Control of Current Hysteresis of Networked Singleâ€Walled Carbon Nanotube Transistors by a Ferroelectric Polymer Gate Insulator. Advanced Functional Materials, 2013, 23, 1120-1128.	14.9	23
122	Measurement of the thermal diffusivity of thin films with bolometers and with pyroelectric temperature sensors. Ferroelectrics, 1991, 118, 435-450.	0.6	22
123	Dielectric and electret properties of nanoemulsion spin-on polytetrafluoroethylene films. Applied Physics Letters, 2000, 76, 2612-2614.	3.3	22
124	Large area expansion of a soft dielectric membrane triggered by a liquid gaseous phase change. Applied Physics A: Materials Science and Processing, 2011, 105, 1-3.	2.3	22
125	Analysis of signals from superposed relaxation processes. Journal of Applied Physics, 1991, 69, 2759-2767.	2.5	21
126	Utilizing a high fundamental frequency quartz crystal resonator as a biosensor in a digital microfluidic platform. Sensors and Actuators A: Physical, 2011, 172, 161-168.	4.1	21

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127	Cost-Efficient Open Source Desktop Size Radial Stretching System With Force Sensor. IEEE Access, 2015, 3, 556-561.	4.2	21
128	â€œFluidic diodeâ€•for passive unidirectional liquid transport bioinspired by the spermathecae of fleas. Journal of Bionic Engineering, 2018, 15, 42-56.	5.0	21
129	Generation and detection of broadband airborne ultrasound with cellular polymer ferroelectrets. Applied Physics Letters, 2007, 91, .	3.3	20
130	Second-harmonic generation with partially poled polymers. Optics Letters, 1993, 18, 16.	3.3	18
131	Film structure and ferroelectric properties of in situ grown SrBi 2 Ta 2 O 9 films. Applied Physics A: Materials Science and Processing, 1999, 69, 55-61.	2.3	18
132	Charge localization instability in a highly deformable dielectric elastomer. Applied Physics Letters, 2014, 104, 022905.	3.3	17
133	Real-time in-situ observation of morphological changes in organic bulk-heterojunction solar cells by means of capacitance measurements. Journal of Applied Physics, 2011, 109, 044503-044503-5.	2.5	16
134	Laser ultrasonic receivers based on organic photorefractive polymer composites. Applied Physics B: Lasers and Optics, 2014, 114, 509-515.	2.2	16
135	Semiconductors that stretch and heal. Nature, 2016, 539, 365-367.	27.8	16
136	Direct writing of anodic oxides for plastic electronics. Npj Flexible Electronics, 2018, 2, .	10.7	16
137	A heat wave method for the measurement of thermal and pyroelectric properties of pyroelectric films. Ferroelectrics, 1990, 106, 393-398.	0.6	15
138	Dielectric, pyroelectric, and electro-optic monitoring of the cross-linking process and photoinduced poling of Red Acid Magly. Applied Physics Letters, 1997, 70, 568-570.	3.3	15
139	Temperature-domain analysis of primary and secondary dielectric relaxation phenomena in a nonlinear optical side-chain polymer. Journal of Applied Physics, 1998, 83, 7799-7807.	2.5	15
140	Chemical composition and charge stability of highly crystalline pulsed-laser-deposited polytetrafluoroethylene films on metal substrates. Applied Physics A: Materials Science and Processing, 2001, 72, 581-585.	2.3	15
141	Nonlinear dielectric response of poled amorphous polymer dipole glasses. Journal of Non-Crystalline Solids, 2005, 351, 2759-2763.	3.1	15
142	Dielectric response of doped organic semiconductor devices: P3HT:PCBM solar cells. Physical Review B, 2011, 84, .	3.2	15
143	Stretchable Polymerized High Internal Phase Emulsion Separators for High Performance Soft Batteries. Advanced Energy Materials, 2020, 10, 2000467.	19.5	15
144	Dielectric spectroscopy on ferroelectric P(VDF-TrFE). Ferroelectrics, 1992, 127, 215-220.	0.6	14

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145	Polymer electrets for electronics, sensors, and photonics. , 2001, , 185-231.		14
146	Conformable large-area position-sensitive photodetectors based on luminescence-collecting silicone waveguides. Journal of Applied Physics, 2010, 107, 123101.	2.5	14
147	Interference effects of thermal waves and their application to bolometers and pyroelectric detectors. Sensors and Actuators A: Physical, 1991, 26, 417-421.	4.1	13
148	Design and properties of a microcalorimeter. IEEE Transactions on Electrical Insulation, 1992, 27, 861-866.	0.8	13
149	Investigation of trap states and mobility in organic semiconductor devices by dielectric spectroscopy: Oxygen-doped P3HT:PCBM solar cells. Physical Review B, 2012, 86, .	3.2	13
150	The ferroelectric phase transition of P(VDF-TrFE) polymers. Ferroelectrics, 1992, 127, 209-214.	0.6	12
151	Surface patterned dielectrics by direct writing of anodic oxides using scanning droplet cell microscopy. Electrochimica Acta, 2013, 113, 755-761.	5.2	12
152	Transparent, flexible, thin sensor surfaces for passive light-point localization based on two functional polymers. Sensors and Actuators A: Physical, 2016, 239, 70-78.	4.1	12
153	iSens: A Fiberâ€Based, Highly Permeable and Imperceptible Sensor Design. Advanced Materials, 2021, 33, e2102736.	21.0	12
154	Anodization Behavior of Glassy Metallic Hafnium Thin Films. Journal of the Electrochemical Society, 2015, 162, E30-E36.	2.9	11
155	Electromechanical characterization and measurement protocol for dielectric elastomer actuators. , 2006, 6168, 698.		10
156	PbTiO₃â€“ P(VDF-TrFE) â€“ Nanocomposites for Pressure and Temperature Sensitive Skin. Ferroelectrics, 2011, 419, 23-27.	0.6	10
157	Bio-inspired â€œfluidic diodeâ€•for large-area unidirectional passive water transport even against gravity. Sensors and Actuators A: Physical, 2018, 283, 375-385.	4.1	10
158	Preparation and pyroelectrical investigation of bimorph polymer layers. Annalen Der Physik, 1995, 507, 355-366.	2.4	9
159	Monomorphs, bimorphs, and multimorphs from polar polymer electrets. Brazilian Journal of Physics, 1999, 29, 306-317.	1.4	9
160	Relaxation behaviour of electrically induced polar orientation and of optically induced non-polar orientation in an azo-chromophore side group polymer. Journal Physics D: Applied Physics, 1999, 32, 2996-3003.	2.8	9
161	Capacitance Dilatometry for the in-situ Controlled Expansion Process of Cellular Polymer-Filler Composites (Ferroelectrets). Ferroelectrics, 2006, 331, 181-187.	0.6	9
162	Nonlinear capacitance dilatometry for investigating elastic and electromechanical properties of ferroelectrets. Applied Physics Letters, 2007, 91, 122901.	3.3	9

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163	Natural Materials for Organic Electronics. Springer Series in Materials Science, 2013, , 295-318.	0.6	9
164	Electromechanical strain in conjugated polymer diodes under forward and reverse bias. Applied Physics Letters, 2005, 86, 193507.	3.3	8
165	Temporal change in the electromechanical properties of dielectric elastomer minimum energy structures. Journal of Applied Physics, 2014, 115, 214105.	2.5	8
166	The importance of open and frugal labware. Nature Electronics, 2018, 1, 484-486.	26.0	8
167	Spatial and thermal analysis of optical nonlinearity created by asymmetric charge injection. Optics Communications, 1996, 123, 195-200.	2.1	7
168	Dielectric investigation of thermally-induced chromophore degradation in nonlinear optical polymer electrets. IEEE Transactions on Dielectrics and Electrical Insulation, 1998, 5, 21-25.	2.9	7
169	Micropatterned atmospheric pressure discharge surface modification of fluorinated polymer films for mammalian cell adhesion and protein binding. Applied Physics A: Materials Science and Processing, 2008, 92, 547-555.	2.3	7
170	Cellular ferroelectrets for flexible touchpads, keyboards and tactile sensors. , 2008, , .		7
171	Dielectric elastomers: from the beginning of modern science to applications in actuators and energy harvesters. , 2011, , .		7
172	Elastic components for prosthetic skin. , 2011, 2011, 8373-6.		7
173	Electrical determination of the degree of cross-linking in a poled non-linear optical polymer. Chemical Physics Letters, 1996, 262, 663-667.	2.6	6
174	Air-gap capacitance cell for the investigation of porous or solvent containing dielectric films. Review of Scientific Instruments, 2002, 73, 1845-1852.	1.3	6
175	Second-harmonic generation of light in ferroelectric polymer films with a spatially nonuniform distribution of polarization. IEEE Transactions on Electrical Insulation, 1992, 27, 849-855.	0.8	5
176	Unexpected electromechanical actuation in conjugated polymer based diodes. Journal of Materials Chemistry, 2006, 16, 1789-1793.	6.7	5
177	Transparent pyroelectric sensors and organic field-effect transistors with fluorinated polymers: steps towards organic infrared detectors. IEEE Transactions on Dielectrics and Electrical Insulation, 2006, 13, 1087-1092.	2.9	5
178	Dynamic capacitive extensometry setup for in-situ monitoring of dielectric elastomer actuators. , 2012, , .		5
179	Modeling of large-area sensors with resistive electrodes for passive stimulus-localization. Sensors and Actuators A: Physical, 2013, 202, 37-43.	4.1	5
180	Charge-spring model for predicting the piezoelectric response of dielectric materials: Considering tetragonality extends validity to ferroelectric crystals. , 2016, , .		5

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181	Stretchâ€Safe: Magnetic Connectors for Modular Stretchable Electronics. Advanced Intelligent Systems, 2020, 2, 2000065.	6.1	5
182	Light curtain for 2D large-area object detection. Optics Express, 2013, 21, 12757.	3.4	4
183	Body Temperature-Triggered Mechanical Instabilities for High-Speed Soft Robots. Soft Robotics, 2022, 9, 128-134.	8.0	4
184	In-situ profiling of dipole polarization distributions in poled nonlinear optical polymers with electrothermal and optical techniques. Chemical Physics, 1999, 245, 297-310.	1.9	3
185	Flexible and stretchable dielectrics. , 2010, , .		3
186	Analysis of safe and failure mode regimes of dielectric elastomer actuators. , 2008, , .		2
187	Ionic Impurities in Poly(vinyl alcohol) Gate Dielectrics and Hysteresis Effects in Organic Field Effect Transistors. Materials Research Society Symposia Proceedings, 2008, 1091, 1.	0.1	2
188	Cellular ferroelectrets for electroactive polymer hybrid systems: soft matter integrated devices with advanced functionality. , 2008, , .		2
189	An electrowetting on dielectrics based lab-on-a-chip utilizing an integrated high fundamental frequency quartz crystal resonator as a biosensor. Procedia Engineering, 2010, 5, 959-964.	1.2	2
190	Discharge of ferroelectrets upon ionizing alpha-radiation. IEEE Transactions on Dielectrics and Electrical Insulation, 2011, 18, 64-68.	2.9	2
191	Breakthroughs in Photonics 2012: Large-Area Ultrathin Photonics. IEEE Photonics Journal, 2013, 5, 0700805-0700805.	2.0	2
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