Edwin Jager

List of Publications by Year
in descending order

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94 papers	5,546 citations	109321 35 h-index	98798 67 g-index
98 all docs	98 docs citations	98 times ranked	6396 citing authors

#	Article	IF	Citations
1	Biohybrid Variableâ€Stiffness Soft Actuators that Selfâ€Create Bone. Advanced Materials, 2022, 34, e2107345.	21.0	22
2	Ionofibers: Ionically Conductive Textile Fibers for Conformal iâ€Textiles. Advanced Materials Technologies, 2022, 7, .	5.8	6
3	The effect of electroactive length and intrinsic conductivity on the actuation behaviour of conducting polymer-based yarn actuators for textile muscles. Sensors and Actuators B: Chemical, 2022, 370, 132384.	7.8	11
4	3D Printing Microactuators for Soft Microrobots. Soft Robotics, 2021, 8, 19-27.	8.0	30
5	A Versatile Flexible Polymer Actuator System for Pumps, Valves, and Injectors Enabling Fully Disposable Active Microfluidics. Advanced Materials Technologies, 2021, 6, 2000769.	5.8	2
6	Fast and Highâ€Strain Electrochemically Driven Yarn Actuators in Twisted and Coiled Configurations. Advanced Functional Materials, 2021, 31, 2008959.	14.9	30
7	Soft parallel manipulator fabricated by additive manufacturing. Sensors and Actuators B: Chemical, 2020, 305, 127355.	7.8	10
8	Artificial Muscles from Hybrid Carbon Nanotubeâ€Polypyrroleâ€Coated Twisted and Coiled Yarns. Macromolecular Materials and Engineering, 2020, 305, 2000421.	3.6	29
9	Fully 3D printed soft microactuators for soft microrobotics. Smart Materials and Structures, 2020, 29, 085032.	3.5	21
10	Soft actuator materials for textile muscles and wearable bioelectronics. , 2020, , 201-218.		4
11	Enhancing the Conductivity of the Poly(3,4â€ethylenedioxythiophene)â€Poly(styrenesulfonate) Coating and Its Effect on the Performance of Yarn Actuators. Advanced Intelligent Systems, 2020, 2, 1900184.	6.1	5
12	Novel fabrication of soft microactuators with morphological computing using soft lithography. Microsystems and Nanoengineering, 2019, 5, 44.	7.0	22
13	Tailorable, 3D structured and micro-patternable ionogels for flexible and stretchable electrochemical devices. Journal of Materials Chemistry C, 2019, 7, 256-266.	5.5	26
14	Artificial Muscles Powered by Glucose. Advanced Materials, 2019, 31, e1901677.	21.0	39
15	Conjugated Polymer Actuators and Devices: Progress and Opportunities. Advanced Materials, 2019, 31, e1808210.	21.0	130
16	Development of polypyrrole based solid-state on-chip microactuators using photolithography. Smart Materials and Structures, 2018, 27, 074006.	3.5	15
17	The role of ATP signalling in response to mechanical stimulation studied in T24 cells using new microphysiological tools. Journal of Cellular and Molecular Medicine, 2018, 22, 2319-2328.	3.6	17
18	Type I Collagen-Derived Injectable Conductive Hydrogel Scaffolds as Glucose Sensors. ACS Applied Materials & Interfaces, 2018, 10, 16244-16249.	8.0	40

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19	Investigation of electrically conducting yarns for use in textile actuators. Smart Materials and Structures, 2018, 27, 074004.	3.5	26
20	Patterning Highly Conducting Conjugated Polymer Electrodes for Soft and Flexible Microelectrochemical Devices. ACS Applied Materials & Interfaces, 2018, 10, 14978-14985.	8.0	15
21	Highly Conductive, Photolithographically Patternable Ionogels for Flexible and Stretchable Electrochemical Devices. ACS Applied Materials & Interfaces, 2018, 10, 21601-21611.	8.0	45
22	Switchable presentation of cytokines on electroactive polypyrrole surfaces for hematopoietic stem and progenitor cells. Journal of Materials Chemistry B, 2018, 6, 4665-4675.	5.8	6
23	Actuating Textiles: Next Generation of Smart Textiles. Advanced Materials Technologies, 2018, 3, 1700397.	5.8	93
24	Progress in electromechanically active polymers: selected papers from EuroEAP 2017. Smart Materials and Structures, 2018, 27, 070201.	3.5	0
25	Knitting and weaving artificial muscles. Science Advances, 2017, 3, e1600327.	10.3	278
26	Redox-active conducting polymers modulate Salmonella biofilm formation by controlling availability of electron acceptors. Npj Biofilms and Microbiomes, 2017, 3, 19.	6.4	31
27	Electrochemical bacterial detection using poly(3-aminophenylboronic acid)-based imprinted polymer. Biosensors and Bioelectronics, 2017, 93, 87-93.	10.1	117
28	Doping Polypyrrole Films with 4-N-Pentylphenylboronic Acid to Enhance Affinity towards Bacteria and Dopamine. PLoS ONE, 2016, 11, e0166548.	2.5	11
29	Tuning the Surface Properties of Polypyrrole Films for Modulating Bacterial Adhesion. Macromolecular Chemistry and Physics, 2016, 217, 1128-1135.	2.2	14
30	Conducting Polymers as EAPs: Characterization Methods and Metrics. , 2016, , 1-33.		0
31	Conducting Polymers as EAPs: Applications. , 2016, , 1-27.		0
32	Direct Mechanical Stimulation of Stem Cells: A Beating Electromechanically Active Scaffold for Cardiac Tissue Engineering. Advanced Healthcare Materials, 2016, 5, 1471-1480.	7.6	99
33	Electronic Paper: Plasmonic Metasurfaces with Conjugated Polymers for Flexible Electronic Paper in Color (Adv. Mater. 45/2016). Advanced Materials, 2016, 28, 10103-10103.	21.0	5
34	Fabrication and adhesion of conjugated polymer trilayer structures for soft, flexible micromanipulators. , 2016, , .		2
35	Lab on chip microdevices for cellular mechanotransduction in urothelial cells. , 2016, , .		0
36	Plasmonic Metasurfaces with Conjugated Polymers for Flexible Electronic Paper in Color. Advanced Materials, 2016, 28, 9956-9960.	21.0	128

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37	Conducting Polymers as EAPs: Device Configurations. , 2016, , 257-291.		3
38	Conducting Polymers as EAPs: Microfabrication. , 2016, , 293-318.		1
39	Conducting Polymers as EAPs: Characterization Methods and Metrics. , 2016, , 319-351.		1
40	Conducting Polymers as EAPs: Applications. , 2016, , 385-411.		1
41	Optimisation of conductive polymer biomaterials for cardiac progenitor cells. RSC Advances, 2016, 6, 62270-62277.	3.6	7
42	Label-free impedimetric biosensor for Salmonella Typhimurium detection based on poly [pyrrole-co-3-carboxyl-pyrrole] copolymer supported aptamer. Biosensors and Bioelectronics, 2016, 80, 194-200.	10.1	195
43	Electrochemo-dynamical characterization of polypyrrole actuators coated on gold electrodes. Physical Chemistry Chemical Physics, 2016, 18, 827-836.	2.8	20
44	Bottom-up microfabrication process for individually controlled conjugated polymer actuators. Sensors and Actuators B: Chemical, 2016, 230, 818-824.	7.8	27
45	Water-processable polypyrrole microparticle modules for direct fabrication of hierarchical structured electrochemical interfaces. Electrochimica Acta, 2016, 190, 495-503.	5.2	21
46	Tunable conjugated polymers for bacterial differentiation. Sensors and Actuators B: Chemical, 2016, 222, 839-848.	7.8	28
47	Conducting Polymers as EAPs: Microfabrication. , 2016, , 1-26.		0
48	Conducting Polymers as EAPs: Device Configurations. , 2016, , 1-35.		0
49	Soft, flexible micromanipulators comprising polypyrrole trilayer microactuators. , 2015, , .		2
50	Micromechanical stimulation chips for studying mechanotransduction in micturition. , 2015, , .		1
51	Controlling the electro-mechanical performance of polypyrrole through 3- and 3,4-methyl substituted copolymers. RSC Advances, 2015, 5, 84153-84163.	3.6	16
52	Electroactive 3D materials for cardiac tissue engineering. Proceedings of SPIE, 2015, , .	0.8	7
53	Soft linear electroactive polymer actuators based on polypyrrole. Proceedings of SPIE, 2015, , .	0.8	4
54	Biocompatibility of Polypyrrole with Human Primary Osteoblasts and the Effect of Dopants. PLoS ONE, 2015, 10, e0134023.	2.5	58

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55	Electroresponsive Nanoporous Membranes by Coating Anodized Alumina with Poly(3,4â€ethylenedioxythiophene) and Polypyrrole. Macromolecular Materials and Engineering, 2014, 299, 190-197.	3.6	10
56	Influence of conductive polymer doping on the viability of cardiac progenitor cells. Journal of Materials Chemistry B, 2014, 2, 3860-3867.	5.8	55
57	Electronic control of platelet adhesion using conducting polymer microarrays. Lab on A Chip, 2014, 14, 3043.	6.0	11
58	Novel actuators based on polypyrrole/carbide-derived carbon hybrid materials. Carbon, 2014, 80, 387-395.	10.3	40
59	Effect of the Electrolyte Concentration and Substrate on Conducting Polymer Actuators. Langmuir, 2014, 30, 3894-3904.	3.5	96
60	A renewable biopolymer cathode with multivalent metal ions for enhanced charge storage. Journal of Materials Chemistry A, 2014, 2, 1974-1979.	10.3	42
61	Conducting polymer actuators for medical devices and cell mechanotransduction. , 2013, , .		3
62	Patterning and electrical interfacing of individually controllable conducting polymer microactuators. Sensors and Actuators B: Chemical, 2013, 183, 283-289.	7.8	41
63	Thin film free-standing PEDOT:PSS/SU8 bilayer microactuators. Journal of Micromechanics and Microengineering, 2013, 23, 117004.	2.6	29
64	Electromechanically active polymer transducers: research in Europe. Smart Materials and Structures, 2013, 22, 100301.	3.5	1
65	The effect of film thickness on polypyrrole actuation assessed using novel non-contact strain measurements. Smart Materials and Structures, 2013, 22, 104021.	3.5	49
66	Individually controlled conducting polymer tri-layer microactuators. , 2013, , .		4
67	Propulsion of swimming microrobots inspired by<i>metachronal waves</i>in ciliates: from biology to material specifications. Bioinspiration and Biomimetics, 2013, 8, 046004.	2.9	34
68	Actuators, biomedicine, and cell-biology. Proceedings of SPIE, 2012, , .	0.8	2
69	Mechanical stimulation of epithelial cells using polypyrrole microactuators. Lab on A Chip, 2011, 11, 3287.	6.0	100
70	Control of Neural Stem Cell Survival by Electroactive Polymer Substrates. PLoS ONE, 2011, 6, e18624.	2.5	70
71	Electronic Control of Cell Detachment Using a Selfâ€Doped Conducting Polymer. Advanced Materials, 2011, 23, 4403-4408.	21.0	107
72	Electrochemical Control of Growth Factor Presentation To Steer Neural Stem Cell Differentiation. Angewandte Chemie - International Edition, 2011, 50, 12529-12533.	13.8	56

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73	Altering the structure of polypyrrole and the influence on electrodynamic performance. , 2011, , .		3
74	Conjugated Polymers as Actuators for Medical Devices and Microsystems. , 2010, , 141-161.		9
75	Electroactive surfaces based on conducting polymers for controlling cell adhesion, signaling, and proliferation. , 2009, , .		5
76	An organic electronic ion pump to regulate intracellular signaling at high spatiotemporal resolution. , 2009, , .		8
77	Translating Electronic Currents to Precise Acetylcholineâ€"Induced Neuronal Signaling Using an Organic Electrophoretic Delivery Device. Advanced Materials, 2009, 21, 4442-4446.	21.0	110
78	Active Control of Epithelial Cellâ€Density Gradients Grown Along the Channel of an Organic Electrochemical Transistor. Advanced Materials, 2009, 21, 4379-4382.	21.0	85
79	Electrochemical modulation of epithelia formation using conducting polymers. Biomaterials, 2009, 30, 6257-6264.	11.4	121
80	Organic electronics for precise delivery of neurotransmitters to modulate mammalian sensory function. Nature Materials, 2009, 8, 742-746.	27.5	314
81	Nano-fiber scaffold electrodes based on PEDOT for cell stimulation. Sensors and Actuators B: Chemical, 2009, 142, 451-456.	7.8	110
82	Control of Neural Stem Cell Adhesion and Density by an Electronic Polymer Surface Switch. Langmuir, 2008, 24, 14133-14138.	3.5	86
83	New materials for micro-scale sensors and actuators. Materials Science and Engineering Reports, 2007, 56, 1-129.	31.8	438
84	Altered impedance during pigment aggregation inXenopus laevis melanophores. Medical and Biological Engineering and Computing, 2003, 41, 357-364.	2.8	7
85	Conjugated-Polymer Micro- and Milliactuators for Biological Applications. MRS Bulletin, 2002, 27, 461-464.	3.5	60
86	The Cell Clinic: Closable Microvials for Single Cell Studies. Biomedical Microdevices, 2002, 4, 177-187.	2.8	65
87	Perpendicular Actuation with Individually Controlled Polymer Microactuators. Advanced Materials, 2001, 13, 76-79.	21.0	45
88	Microfabricating Conjugated Polymer Actuators. , 2000, 290, 1540-1545.		848
89	Silicon based affinity biochips viewed with imaging ellipsometry. Measurement Science and Technology, 2000, 11, 801-808.	2.6	28
90	Microrobots for Micrometer-Size Objects in Aqueous Media: Potential Tools for Single-Cell Manipulation. Science, 2000, 288, 2335-2338.	12.6	547

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91	On-chip microelectrodes for electrochemistry with moveable PPy bilayer actuators as working electrodes. Sensors and Actuators B: Chemical, 1999, 56, 73-78.	7.8	44
92	Polypyrrole micro actuators. Synthetic Metals, 1999, 102, 1309-1310.	3.9	87
93	Fabrication and packaging of integrated chemo-optical sensors. Sensors and Actuators B: Chemical, 1996, 35, 234-240.	7.8	47
94	Biomedical applications of polypyrrole microactuators: from single-cell clinic to microrobots. , 0, , .		2