Toribio FernÃ¡ndez Otero

List of Publications by Year
in descending order

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297	9,635	29994 54	58464 82
papers	citations	h-index	g-index

302	302	302	5188
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Exploring Brain Information Storage/Reading for Neuronal Connectivity Using Macromolecular Electrochemical Sensing Motors. Advanced Intelligent Systems, 2022, 4, 2100058.	3.3	2
2	Artificial muscle like behavior of polypyrrole polyethylene oxide independent of applied potential ranges. Journal of Applied Polymer Science, 2022, 139, .	1.3	6
3	Electroactive macromolecular motors as model materials of ectotherm muscles. RSC Advances, 2021, 11, 21489-21506.	1.7	8
4	Towards artificial proprioception from artificial muscles constituted by self-sensing multi-step electrochemical macromolecular motors. Electrochimica Acta, 2021, 368, 137576.	2.6	20
5	Improving the onset potential and Tafel slope determination of earth-abundant water oxidation electrocatalysts. Electrochimica Acta, 2021, 388, 138613.	2.6	30
6	Enhancing the electrocatalytic activity and stability of Prussian blue analogues by increasing their electroactive sites through the introduction of Au nanoparticles. Nanoscale, 2021, 13, 12676-12686.	2.8	6
7	Multifunctionality of Polypyrrole Polyethyleneoxide Composites: Concurrent Sensing, Actuation and Energy Storage. Polymers, 2020, 12, 2060.	2.0	8
8	Concept of an artificial muscle design on polypyrrole nanofiber scaffolds. PLoS ONE, 2020, 15, e0232851.	1.1	19
9	Role of polyethylene oxide content in polypyrrole linear actuators. Materials Today Communications, 2020, 23, 100908.	0.9	11
10	Concept of an artificial muscle design on polypyrrole nanofiber scaffolds. , 2020, 15, e0232851.		0
11	Concept of an artificial muscle design on polypyrrole nanofiber scaffolds. , 2020, 15, e0232851.		0
12	Concept of an artificial muscle design on polypyrrole nanofiber scaffolds. , 2020, 15, e0232851.		0
13	Concept of an artificial muscle design on polypyrrole nanofiber scaffolds. , 2020, 15, e0232851.		0
14	The response of polypyrroleâ€“DBS electrochemical molecular motors to Na concentration: Analogies in cell biology. Electrochemistry Communications, 2019, 103, 114-119.	2.3	6
15	Solvent effects on carbide-derived-carbon trilayer bending actuators. Synthetic Metals, 2019, 247, 170-176.	2.1	4
16	Three electrochemical tools (motor-sensor-battery) with energy recovery work simultaneously in a trilayer artificial muscle. Electrochimica Acta, 2019, 294, 126-133.	2.6	10
17	Structural and Conformational Chemistry from Electrochemical Molecular Machines. Replicating Biological Functions. A Review. Chemical Record, 2018, 18, 788-806.	2.9	11
18	Chemical sensors from the cooperative actuation of multistep electrochemical molecular machines of polypyrrole: potentiostatic study. Trying to replicate muscleâ€™s fatigue signals. Smart Materials and Structures, 2018, 27, 074001.	1.8	9

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19	The cooperative actuation of polypyrrole electrochemical machines senses the chemical conditions as muscles sense their fatigue state. Sensors and Actuators B: Chemical, 2018, 263, 493-501.	4.0	14
20	The Energy Consumed by Electrochemical Molecular Machines as Selfâ€Sensor of the Reaction Conditions: Origin of Sensing Nervous Pulses and Asymmetry in Biological Functions. ChemElectroChem, 2018, 5, 3335-3347.	1.7	9
21	A COTS-Based Portable System to Conduct Accurate Substance Concentration Measurements. Sensors, 2018, 18, 539.	2.1	12
22	Progress in electromechanically active polymers: selected papers from EuroEAP 2017. Smart Materials and Structures, 2018, 27, 070201.	1.8	0
23	Mechanical and actuating properties of Ppy/DBS dependency with the synthesis parameters. , 2018, , .		0
24	Front Matter: Volume 10594. , 2018, , .		0
25	Interpenetrated triple polymeric layer as electrochemomechanical actuator: Solvent influence and diffusion coefficient of counterions. Electrochimica Acta, 2017, 230, 461-469.	2.6	22
26	Self-Supported Polypyrrole/Polyvinylsulfate Films: Electrochemical Synthesis, Characterization, and Sensing Properties of Their Redox Reactions. ChemistryOpen, 2017, 6, 25-32.	0.9	6
27	Dual sensing-actuation artificial muscle based on polypyrrole-carbon nanotube composite. Proceedings of SPIE, 2017, , .	0.8	1
28	Properties of polypyrrole polyvinilsulfate films for dual actuator sensing systems. Proceedings of SPIE, 2017, , .	0.8	0
29	Electrospun silk fibroin scaffolds coated with reduced graphene promote neurite outgrowth of PC-12 cells under electrical stimulation. Materials Science and Engineering C, 2017, 79, 315-325.	3.8	71
30	Biomimetic reactions in conducting polymers for artificial muscles: sensing working conditions. Proceedings of SPIE, 2017, , .	0.8	3
31	Polypyrrole-amphiphile blend electrodes: new reaction-driven structural processes with possible formation of vesicles. Electrochimica Acta, 2017, 246, 89-96.	2.6	10
32	Reprint of: Oxidation kinetics of polypyrrole films: Solvent influence. Journal of Electroanalytical Chemistry, 2017, 793, 25-33.	1.9	2
33	Electrochemical Synthesis and Characterization of Flavin Mononucleotideâ€Exfoliated Pristine Graphene/Polypyrrole Composites. ChemElectroChem, 2017, 4, 1487-1497.	1.7	11
34	Reactions driving conformational movements (molecular motors) in gels: conformational and structural chemical kinetics. Physical Chemistry Chemical Physics, 2017, 19, 1718-1730.	1.3	21
35	A Potentiostatic/Galvanostatic Study and Theoretical Description of Polypyrrole Film Electrodes: A Model of the Intracellular Matrix of Ectothermic Muscle Cells. ChemElectroChem, 2017, 4, 3091-3099.	1.7	13
36	The cooperative actuation of multistep electrochemical molecular machines senses the working temperature: voltammetric study. Electrochimica Acta, 2017, 257, 403-411.	2.6	13

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37	Bending Monolayer Artificial Muscle. ChemElectroChem, 2017, 4, 3276-3282.	1.7	8
38	Chemical sensors from the cooperative actuation of multistep electrochemical molecular machines of polypyrrole: Voltammetric study. Sensors and Actuators B: Chemical, 2017, 253, 958-966.	4.0	29
39	The cooperative actuation of multistep electrochemical molecular machines in polypyrrole films senses the imposed energetic conditions: Influence of the potential scan rate. Electrochimica Acta, 2017, 258, 1293-1303.	2.6	11
40	Metal-functionalized covalent organic frameworks as precursors of supercapacitive porous N-doped graphene. Journal of Materials Chemistry A, 2017, 5, 4343-4351.	5.2	91
41	Artificial muscles driven by the cooperative actuation of electrochemical molecular machines. Persistent discrepancies and challenges. International Journal of Smart and Nano Materials, 2017, 8, 125-143.	2.0	6
42	Self-Supported Polypyrrole/Polyvinylsulfate Films: Electrochemical Synthesis, Characterization, and Sensing Properties of Their Redox Reactions. ChemistryOpen, 2017, 6, 2-2.	0.9	1
43	Self-Supported Polypyrrole/Polyvinylsulfate Films: Electrochemical Synthesis, Characterization, and Sensing Properties of Their Redox Reactions. ChemistryOpen, 2017, , .	0.9	0
44	Self-Supported Polypyrrole/Polyvinylsulfate Films: Electrochemical Synthesis, Characterization, and Sensing Properties of Their Redox Reactions. ChemistryOpen, 2017, , .	0.9	0
45	Faradaic and Capacitive Components of the CNT Electrochemical Responses. Frontiers in Materials, 2016, 3, .	1.2	17
46	Conducting Polymers as EAPs: Fundamentals and Materials. , 2016, , 1-19.		1
47	Asymmetric Bilayer Muscles. Cooperative and Antagonist Actuation. Electrochimica Acta, 2016, 195, 9-18.	2.6	30
48	Polymeric actuators: Solvents tune reaction-driven cation to reaction-driven anion actuation. Sensors and Actuators B: Chemical, 2016, 233, 328-336.	4.0	46
49	Graphene adsorbed on silk-fibroin meshes: Biomimetic and reversible conformational movements driven by reactions. Electrochimica Acta, 2016, 209, 521-528.	2.6	16
50	Oxidation kinetics of polypyrrole films: Solvent influence. Journal of Electroanalytical Chemistry, 2016, 777, 108-116.	1.9	7
51	Conducting Polymers as EAPs: Fundamentals and Materials. , 2016, , 237-255.		2
52	Coulovoltammetric and Dynamovoltammetric Responses from Conducting Polymers and Bilayer Muscles as Tools to Identify Reaction-driven Structural Changes. A review. Electrochimica Acta, 2016, 212, 440-457.	2.6	49
53	Electrochemical synthesis and characterization of self-supported polypyrrole-DBS-MWCNT electrodes. Journal of Electroanalytical Chemistry, 2016, 782, 182-191.	1.9	5
54	Asymmetric Bilayer Muscles: Cooperative Actuation, Dynamic Hysteresis, and Creeping in NaPF₆ Aqueous Solutions. ChemistryOpen, 2016, 5, 369-374.	0.9	3

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55	Construction and coulodynamic characterization of PPy-DBS-MWCNT/tape bilayer artificial muscles. RSC Advances, 2016, 6, 68538-68544.	1.7	16
56	Electrochemo-dynamical characterization of polypyrrole actuators coated on gold electrodes. Physical Chemistry Chemical Physics, 2016, 18, 827-836.	1.3	20
57	Fabrication of electrospun silk fibroin scaffolds coated with graphene oxide and reduced graphene for applications in biomedicine. Bioelectrochemistry, 2016, 108, 36-45.	2.4	56
58	Electro-chemo-biomimetics from conducting polymers: fundamentals, materials, properties and devices. Journal of Materials Chemistry B, 2016, 4, 2069-2085.	2.9	51
59	Polypyrrole Asymmetric Bilayer Artificial Muscle: Driven Reactions, Cooperative Actuation, and Osmotic Effects. Advanced Functional Materials, 2015, 25, 1535-1541.	7.8	55
60	Deep Reduced PEDOT Films Support Electrochemical Applications: Biomimetic Color Front. Frontiers in Bioengineering and Biotechnology, 2015, 3, 15.	2.0	8
61	Solvent and electrolyte effects in PPyDBS free standing films. , 2015, , .		1
62	Artificial Physical and Chemical Awareness (Proprioception) from Polymeric Motors. Materials Research Society Symposia Proceedings, 2015, 1717, 27.	0.1	0
63	Creeping and structural effects in Faradaic artificial muscles. Journal of Solid State Electrochemistry, 2015, 19, 2683-2689.	1.2	41
64	Polymeric Artificial Muscles are Linear Faradaic Motors. Key Engineering Materials, 2015, 644, 137-144.	0.4	0
65	Chemo-ionic-conformational memory from reactive dense gels: a way to explore new multivalent memories and brain memory. Materials Research Society Symposia Proceedings, 2015, 1729, 137-142.	0.1	1
66	Physical and chemical awareness from sensing polymeric artificial muscles. Experiments and modeling. Progress in Polymer Science, 2015, 44, 62-78.	11.8	95
67	Structural Electrochemistry from Freestanding Polypyrrole Films: Full Hydrogen Inhibition from Aqueous Solutions. Advanced Functional Materials, 2014, 24, 1265-1274.	7.8	49
68	Mechanical awareness from sensing artificial muscles: Experiments and modeling. Sensors and Actuators B: Chemical, 2014, 195, 365-372.	4.0	43
69	Fibroin/Polyaniline microfibrous mat. Preparation and electrochemical characterization as reactive sensor. Electrochimica Acta, 2014, 123, 501-510.	2.6	36
70	Ionic exchanges, structural movements and driven reactions in conducting polymers from bending artificial muscles. Sensors and Actuators B: Chemical, 2014, 199, 27-30.	4.0	55
71	Polypyrroleâ€“para-phenolsulfonic acid/tape artificial muscle as a tool to clarify biomimetic driven reactions and ionic exchanges. Journal of Materials Chemistry B, 2014, 2, 1954-1965.	2.9	30
72	Structural electrochemistry. Chronopotentiometric responses from rising compacted polypyrrole electrodes: experiments and model. RSC Advances, 2014, 4, 29139-29145.	1.7	17

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73	Exchanged Cations and Water during Reactions in Polypyrrole Macroions from Artificial Muscles. ChemPhysChem, 2014, 15, 293-301.	1.0	59
74	Effect of the Electrolyte Concentration and Substrate on Conducting Polymer Actuators. Langmuir, 2014, 30, 3894-3904.	1.6	96
75	Polyurethane microfibrous mat templated polypyrrole: Preparation and biomimetic reactive sensing capabilities. Journal of Electroanalytical Chemistry, 2014, 719, 47-53.	1.9	29
76	A chemical and electrochemical multivalent memory made from FeNi3-graphene nanocomposites. Electrochemistry Communications, 2014, 39, 15-18.	2.3	14
77	Structural Electrochemistry: Conductivities and Ionic Content from Rising Reduced Polypyrrole Films. Advanced Functional Materials, 2014, 24, 1259-1264.	7.8	62
78	Biomimetic Structural Electrochemistry from Conducting Polymers: Processes, Charges, and Energies. Coulovoltammetric Results from Films on Metals Revisited. Advanced Functional Materials, 2013, 23, 3929-3940.	7.8	91
79	Biomimetic Conducting Polymers: Synthesis, Materials, Properties, Functions, and Devices. Polymer Reviews, 2013, 53, 311-351.	5.3	119
80	Biomimetic intracellular matrix (ICM) materials, properties and functions. Full integration of actuators and sensors. Journal of Materials Chemistry B, 2013, 1, 26-38.	2.9	77
81	Electrochemistry of electromechanical actuators based on carbon nanotubes and ionic liquids. , 2013, , .		2
82	Reactions drive conformations. Biomimetic properties and devices, theoretical description. Journal of Materials Chemistry B, 2013, 1, 3754.	2.9	35
83	Structural and Biomimetic Chemical Kinetics: Kinetic Magnitudes Include Structural Information. Advanced Functional Materials, 2013, 23, 404-416.	7.8	63
84	Reactive actuators and sensors integrated in one device: mimicking brain-muscles feedback communication. Proceedings of SPIE, 2013, , .	0.8	0
85	Conducting polymers are simultaneous sensing actuators. Proceedings of SPIE, 2013, , .	0.8	7
86	Using reactive artificial muscles to determine water exchange during reactions. Smart Materials and Structures, 2013, 22, 104019.	1.8	28
87	Magnetic Nanocomposites Formed by FeNi₃ Nanoparticles Embedded in Graphene. Application as Supercapacitors. Particle and Particle Systems Characterization, 2013, 30, 853-863.	1.2	53
88	One Actuator and Several Sensors in One Device with only Two Connecting Wires: Mimicking Muscle/Brain Feedback. Advances in Science and Technology, 2012, 79, 16-25.	0.2	4
89	Electrochemical Kinetics in Dense, Reactive and Wet Gels. Biomimicking Reactions and Devices. Molecular Crystals and Liquid Crystals, 2012, 555, 295-305.	0.4	2
90	Biomimetic electrochemistry from conducting polymers. A review. Electrochimica Acta, 2012, 84, 112-128.	2.6	269

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91	Biomimetic Dual Sensing-Actuators Based on Conducting Polymers. Galvanostatic Theoretical Model for Actuators Sensing Temperature. Journal of Physical Chemistry B, 2012, 116, 5279-5290.	1.2	75
92	Biomimetic Dual Sensing-Actuators: Theoretical Description. Sensing Electrolyte Concentration and Driving Current. Journal of Physical Chemistry B, 2012, 116, 9223-9230.	1.2	60
93	Artificial Muscles: A Tool To Quantify Exchanged Solvent during Biomimetic Reactions. Chemistry of Materials, 2012, 24, 4093-4099.	3.2	66
94	Graphene electrochemical responses sense surroundings. Electrochimica Acta, 2012, 81, 49-57.	2.6	25
95	Synthesis, electropolymerization and characterization of a cross-linked PEDOT derivative. Journal of Materials Chemistry, 2012, 22, 4944.	6.7	20
96	Electroâ€conductive doubleâ€network hydrogels. Journal of Polymer Science, Part B: Polymer Physics, 2012, 50, 790-796.	2.4	35
97	Electrochemistry of Carbon Nanotubes: Reactive Processes, Dual Sensingâ€“Actuating Properties and Devices. ChemPhysChem, 2012, 13, 2108-2114.	1.0	27
98	Capacitive and faradic charge components in high-speed carbon nanotube actuator. Electrochimica Acta, 2012, 60, 177-183.	2.6	42
99	Fabrication of conductive electrospun silk fibroin scaffolds by coating with polypyrrole for biomedical applications. Bioelectrochemistry, 2012, 85, 36-43.	2.4	146
100	Simultaneous sensing characteristics of a biomimetic polypyrrole based triple layer actuator exchanging cations. Proceedings of SPIE, 2012, , .	0.8	0
101	Electropolymerization of naphthaleneamidinemonoimide-modified poly(thiophene). Physical Chemistry Chemical Physics, 2011, 13, 16513.	1.3	14
102	Biomimetic polypyrrole based all three-in-one triple layer sensing actuators exchanging cations. Journal of Materials Chemistry, 2011, 21, 17265.	6.7	74
103	Sensing characteristics of a conducting polymer/hydrogel hybrid microfiber artificial muscle. Sensors and Actuators B: Chemical, 2011, 160, 1180-1190.	4.0	132
104	Electropolymerization and characterization of COOH-functionalized poly(3,4-ethylenedioxythiophene): Ionic exchanges. Electrochimica Acta, 2011, 56, 10238-10245.	2.6	13
105	Activation energy for polypyrrole oxidation: film thickness influence. Journal of Solid State Electrochemistry, 2011, 15, 1169-1178.	1.2	51
106	Highâ€Speed Carbon Nanotube Actuators Based on an Oxidation/Reduction Reaction. Chemistry - A European Journal, 2011, 17, 10965-10971.	1.7	45
107	Characterization of the movement of polypyrroleâ€“dodecylbenzenesulfonateâ€“perchlorate/tape artificial muscles. Faradaic control of reactive artificial molecular motors and muscles. Electrochimica Acta, 2011, 56, 3721-3726.	2.6	68
108	Self-supported semi-interpenetrating polymer networks as reactive ambient sensors. Journal of Electroanalytical Chemistry, 2011, 652, 37-43.	1.9	15

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109	Electrochemical characterization of PEDOTâ€“PSSâ€“Sorbitol electrodes. Sorbitol changes cation to anion interchange during reactions. Journal of Electroanalytical Chemistry, 2011, 657, 23-27.	1.9	26
110	Polypyrrol/chitosan hydrogel hybrid microfiber as sensing artificial muscle. Proceedings of SPIE, 2011, , .	0.8	6
111	Synthesis, electropolymerization and oxidation kinetics of an anthraquinone-functionalized poly(3,4-ethylenedioxythiophene). Electrochimica Acta, 2010, 55, 1535-1542.	2.6	33
112	Polypyrrole freeâ€standing electrodes sense temperature or current during reaction. Polymer International, 2010, 59, 337-342.	1.6	19
113	Conformational energy from the oxidation kinetics of poly(3,4â€ethylenedioxythiophene) films. Polymer International, 2010, 59, 329-336.	1.6	24
114	Conducting polymers as simultaneous sensor-actuators. Proceedings of SPIE, 2010, , .	0.8	2
115	Sensing and Tactile Artificial Muscles from Reactive Materials. Sensors, 2010, 10, 2638-2674.	2.1	89
116	Reactive polymer films. Synthetic Metals, 2010, 160, 425-431.	2.1	18
117	Reduction and Oxidation Doping Kinetics of an Electropolymerized Donorâ”Acceptor Low-Bandgap Conjugated Copolymer. Journal of Physical Chemistry B, 2010, 114, 12777-12784.	1.2	28
118	Conducting polymers as simultaneous sensor-actuators. SPIE Newsroom, 2010, , .	0.1	0
119	Chronoamperometric Study of Conformational Relaxation in PPy(DBS). Journal of Physical Chemistry B, 2009, 113, 1277-1293.	1.2	56
120	Polypyrrole oxidation: Kinetic coefficients, activation energy and conformational energy. Synthetic Metals, 2009, 159, 681-688.	2.1	40
121	Soft, wet, and reactive polymers. Sensing artificial muscles and conformational energy. Journal of Materials Chemistry, 2009, 19, 681-689.	6.7	87
122	Photopatterned electrochromic conjugated polymer films via precursor approach. Polymer, 2008, 49, 3686-3692.	1.8	24
123	Potentiostatic oxidation of poly(3-methylthiophene): Influence of the prepolarization time at cathodic potentials on the kinetics. Journal of Electroanalytical Chemistry, 2008, 618, 39-44.	1.9	27
124	Contrast limitations of dual electrochromic systems. Electrochemistry Communications, 2008, 10, 1-6.	2.3	44
125	Polythiophene oxidation: Rate coefficients, activation energy and conformational energies. Electrochimica Acta, 2008, 53, 3166-3174.	2.6	38
126	Electrons create a reaction. Nature Materials, 2008, 7, 429-430.	13.3	14

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127	Use of polymer/ionic liquid plasticizers as gel electrolytes in electrochromic devices. Journal of Physics: Conference Series, 2008, 127, 012011.	0.3	11
128	Reactive conducting polymers as actuating sensors and tactile muscles. Bioinspiration and Biomimetics, 2008, 3, 035004.	1.5	21
129	Poly (3, 4-ethylendioxithiophene) (PEDOT) oxidation: activation energy and conformational energy. Journal of Physics: Conference Series, 2008, 127, 012016.	0.3	9
130	Electrochromic conducting polymers: optical contrast characterization of chameleonic materials. Bioinspiration and Biomimetics, 2008, 3, 035006.	1.5	4
131	Photopatterned conjugated polymer electrochromic nanofibers on paper. Journal of Physics: Conference Series, 2008, 127, 012014.	0.3	5
132	Electro-Chemo-Mechanical Actuators Touching and Sensing Both, Physical and Chemical Ambient. Advances in Science and Technology, 2008, 61, 112-121.	0.2	5
133	Electro-chemo-mechanical response of a free-standing polypyrrole strip. Journal of Physics: Conference Series, 2008, 127, 012005.	0.3	1
134	Biomimetics, Artificial Muscles & Nano-Bio 2007: Scientists Meet Doctors. Journal of Physics: Conference Series, 2008, 127, 011001.	0.3	3
135	Attempting a classification for electrical polymeric actuators. , 2007, , .		3
136	High contrast solid-state electrochromic devices from substituted 3,4-propylenedioxythiophenes using the dual conjugated polymer approach. Synthetic Metals, 2007, 157, 261-268.	2.1	38
137	Optimization, preparation, and electrical short evaluation for 30cm2 active area dual conjugated polymer electrochromic windows. Organic Electronics, 2007, 8, 367-381.	1.4	48
138	Maximum contrast from an electrochromic material. Electrochemistry Communications, 2007, 9, 1931-1935.	2.3	43
139	Structural reorganization of the PPy/DBS films caused by the reduction branch of potentiodynamic polymerization. Electrochimica Acta, 2007, 52, 3621-3629.	2.6	12
140	Nitrate and chloride transport through a smart membrane. Journal of Membrane Science, 2007, 290, 241-249.	4.1	44
141	Electrochemical study of dual conjugated polymer electrochromic devices. Journal of Electroanalytical Chemistry, 2007, 609, 75-84.	1.9	30
142	Poly(3-methylthiophene) oxidation under chemical control. Rate coefficients change with prepolarization potentials of reduction. Journal of Electroanalytical Chemistry, 2007, 610, 96-101.	1.9	33
143	Electrochromic films of a methylcarbazole derivative: optimization of polymerization and optical contrast. Journal of Solid State Electrochemistry, 2007, 11, 1697-1703.	1.2	8
144	Linear movements from two bending triple-layers. Electrochimica Acta, 2007, 53, 1252-1258.	2.6	45

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145	Mechanical characterization of free-standing polypyrrole film. Materials Science and Engineering C, 2007, 27, 18-22.	3.8	42
146	Chapter 6. Artificial Muscles, Sensing and Multifunctionality. , 2007, , 142-190.		0
147	Model of an Asymmetric DPPC/DPPS Membrane:Â Effect of Asymmetry on the Lipid Properties. A Molecular Dynamics Simulation Study. Journal of Physical Chemistry B, 2006, 110, 2358-2363.	1.2	51
148	Effect of the Doping Ion on the Electrical Response of a Free-Standing Polypyrrole Strip Subjected to Different Preloads:â€‰ Perspectives and Limitations Associated with the Use of These Devices as Actuators. Macromolecules, 2006, 39, 9551-9556.	2.2	13
149	Phase Transition of a DPPC Bilayer Induced by an External Surface Pressure:Â From Bilayer to Monolayer Behavior. A Molecular Dynamics Simulation Study. Langmuir, 2006, 22, 5818-5824.	1.6	21
150	Characterization of polypyrrole degradation by the conformational relaxation model. Electrochimica Acta, 2006, 51, 6238-6242.	2.6	25
151	Polypyrrole artificial muscles: a new rhombic element. Construction andâ£electrochemomechanical characterization. Journal of Applied Electrochemistry, 2006, 36, 205-214.	1.5	64
152	<title>Chemical and mechanical sensing in electrochemical actuators</title>. , 2005, 5836, 477.		0
153	Understanding the structural changes that take place in a polypyrrole film during its oxi-reduction process: a molecular dynamics simulation study. , 2005, 5838, 258.		0
154	Multifunctional and biomimicking electrochemical properties of conducting polymers. , 2005, , .		0
155	Ionic diffusion across oxidized polypyrrole membranes and during oxidation of the free-standing film. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2005, 270-271, 226-231.	2.3	49
156	Molecular Dynamics Simulations of the Orientation and Reorientational Dynamics of Water and Polypyrrole Rings as a Function of the Oxidation State of the Polymer. Macromolecular Theory and Simulations, 2005, 14, 40-48.	0.6	13
157	Electrochromic variable transmission optical combiner. , 2005, 5801, 268.		5
158	Mechanical characterization of the life cycle of artificial muscles through stereoscopic computer vision and active contours. , 2005, , .		4
159	Electrodeposition of Cu on deeply reduced polypyrrole electrodes at very high cathodic potentials. Journal of Materials Chemistry, 2005, 15, 1662.	6.7	21
160	In Situ FTIR Spectroscopy Study of the Break-In Phenomenon Observed for PPy/PVS Films in Acetonitrile. Journal of Physical Chemistry B, 2005, 109, 21078-21085.	1.2	48
161	Diffusion Coefficients in Swelling Polypyrrole:Â ESCR and Cottrell Modelsâ€. Journal of Physical Chemistry B, 2005, 109, 1723-1729.	1.2	60
162	Perchlorate Interchange during the Redox Process of PPy/PVS Films in an Acetonitrile Medium. A Voltammetric and EDX Study. Journal of Physical Chemistry B, 2005, 109, 907-914.	1.2	36

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163	Nucleation, non-stoiquiometry and sensing muscles from conducting polymers. Electrochimica Acta, 2004, 49, 3719-3726.	2.6	57
164	Anodic shrinking and compaction of polypyrrole blend: electrochemical reduction under conformational relaxation kinetic control. Journal of Electroanalytical Chemistry, 2004, 561, 167-171.	1.9	68
165	Molar enthalpy of the polypyrrole electrochemistry. Journal of Electroanalytical Chemistry, 2004, 562, 161-165.	1.9	6
166	Artificial muscle: movement and position control. Chemical Communications, 2004, , 284.	2.2	128
167	Molecular dynamic simulation of the hydration and diffusion of chloride ions from bulk water to polypyrrole matrix. Journal of Chemical Physics, 2004, 120, 1951-1957.	1.2	53
168	Polypyrrole:â€‰ Diffusion Coefficients and Degradation by Overoxidation. Journal of Physical Chemistry B, 2004, 108, 15429-15433.	1.2	76
169	Nucleation, non-stoiquiometry, and tactile muscles with conducting polymers. , 2004, , .		5
170	Revisiting the electrochemical properties of conducting polymers. , 2004, , .		0
171	Modeling the polypyrrole water interface by molecular dynamics simulation. , 2004, , .		0
172	Nucleation and Nonstoichiometry in Electrochromic Conducting Polymers. ChemPhysChem, 2003, 4, 868-872.	1.0	46
173	Artificial Muscles with Tactile Sensitivity. Advanced Materials, 2003, 15, 279-282.	11.1	251
174	A sensing muscle. Sensors and Actuators B: Chemical, 2003, 96, 152-156.	4.0	124
175	Potentiostatic Oxidation of Polyaniline under Conformational Relaxation Control:Â Experimental and Theoretical Study. Journal of Physical Chemistry B, 2003, 107, 4269-4276.	1.2	51
176	Characterization of the Reduced and Oxidized Polypyrrole/Water Interface:Â A Molecular Dynamics Simulation Study. Journal of Physical Chemistry B, 2003, 107, 9339-9343.	1.2	39
177	Revisiting the Electrochemical and Polymeric Behavior of a Polypyrrole Free-Standing Electrode in Aqueous Solution. Journal of Physical Chemistry B, 2003, 107, 13954-13961.	1.2	72
178	Comparative Study of Conducting Polymers by the ESCR Model. Journal of Physical Chemistry B, 2003, 107, 6730-6738.	1.2	118
179	Conducting Polymers, Electrochemistry, and Biomimicking Processes. , 2002, , 307-434.		17
180	The Behavior of Polypyrrole-Coated Electrodes in Propylene Carbonate Solutions. Journal of the Electrochemical Society, 2002, 149, E204.	1.3	32

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