Jose G Martinez

List of Publications by Year in Descending Order

68 papers	2,107 citations	27 h-index	45 g-index
71 ext. papers	2,382 ext. citations	7.5 avg, IF	5.5 L-index

#	Paper	IF	Citations
68	Biohybrid Variable Stiffness Soft Actuators that Self-Create Bone. *Advanced Materials*, **2021**, e2107345	24	4
67	Fast and High-Strain Electrochemically Driven Yarn Actuators in Twisted and Coiled Configurations. *Advanced Functional Materials*, **2021**, 31, 2008959	15.6	4
66	A Biomimetic Approach to Increasing Soft Actuator Performance by Friction Reduction. *Polymers*, **2020**, 12,	4.5	4
65	Soft actuator materials for textile muscles and wearable bioelectronics **2020**, 201-218		2
64	Enhancing the Conductivity of the Poly(3,4-ethylenedioxythiophene)-Poly(styrenesulfonate) Coating and Its Effect on the Performance of Yarn Actuators. *Advanced Intelligent Systems*, **2020**, 2, 1900184	6	1
63	Soft parallel manipulator fabricated by additive manufacturing. *Sensors and Actuators B: Chemical*, **2020**, 305, 127355	8.5	6
62	Artificial Muscles from Hybrid Carbon Nanotube-Polypyrrole-Coated Twisted and Coiled Yarns. *Macromolecular Materials and Engineering*, **2020**, 305, 2000421	3.9	11
61	Artificial Muscles Powered by Glucose. *Advanced Materials*, **2019**, 31, e1901677	24	25
60	Conjugated Polymer Actuators and Devices: Progress and Opportunities. *Advanced Materials*, **2019**, 31, e1808210	24	74
59	Solvent effects on carbide-derived-carbon trilayer bending actuators. *Synthetic Metals*, **2019**, 247, 170-176	3.6	2
58	Three electrochemical tools (motor-sensor-battery) with energy recovery work simultaneously in a trilayer artificial muscle. *Electrochimica Acta*, **2019**, 294, 126-133	6.7	6
57	Type I Collagen-Derived Injectable Conductive Hydrogel Scaffolds as Glucose Sensors. *ACS Applied Materials & Interfaces*, **2018**, 10, 16244-16249	9.5	27
56	Investigation of electrically conducting yarns for use in textile actuators. *Smart Materials and Structures*, **2018**, 27, 074004	3.4	14
55	Actuating Textiles: Next Generation of Smart Textiles. *Advanced Materials Technologies*, **2018**, 3, 1700397	6.8	49
54	Interpenetrated triple polymeric layer as electrochemomechanical actuator: Solvent influence and diffusion coefficient of counterions. *Electrochimica Acta*, **2017**, 230, 461-469	6.7	20
53	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	8.3	56
52	Polypyrrole-amphiphile blend electrodes: new reaction-driven structural processes with possible formation of vesicles. *Electrochimica Acta*, **2017**, 246, 89-96	6.7	8

51	Electrochemical Synthesis and Characterization of Flavin Mononucleotide-Exfoliated Pristine Graphene/Polypyrrole Composites. *ChemElectroChem*, **2017**, 4, 1487-1497	4.3	6
50	Conducting Polymers as EAPs: Fundamentals and Materials **2016**, 237-255		2
49	Conducting Polymers as EAPs: How to Start Experimenting with Them **2016**, 413-436		1
48	Conducting Polymers as EAPs: How to Start Experimenting with Them **2016**, 1-25		
47	Asymmetric Bilayer Muscles: Cooperative Actuation, Dynamic Hysteresis, and Creeping in NaPF6 Aqueous Solutions. *ChemistryOpen*, **2016**, 5, 369-74	2.3	3
46	Electrochemo-dynamical characterization of polypyrrole actuators coated on gold electrodes. *Physical Chemistry Chemical Physics*, **2016**, 18, 827-36	3.6	19
45	Fabrication of electrospun silk fibroin scaffolds coated with graphene oxide and reduced graphene for applications in biomedicine. *Bioelectrochemistry*, **2016**, 108, 36-45	5.6	49
44	Electro-chemo-biomimetics from conducting polymers: fundamentals, materials, properties and devices. *Journal of Materials Chemistry B*, **2016**, 4, 2069-2085	7.3	40
43	Faradaic and Capacitive Components of the CNT Electrochemical Responses. *Frontiers in Materials*, **2016**, 3,	4	8
42	Conducting Polymers as EAPs: Fundamentals and Materials **2016**, 1-19		0
41	Asymmetric Bilayer Muscles. Cooperative and Antagonist Actuation. *Electrochimica Acta*, **2016**, 195, 9-18	6.7	29
40	Polymeric actuators: Solvents tune reaction-driven cation to reaction-driven anion actuation. *Sensors and Actuators B: Chemical*, **2016**, 233, 328-336	8.5	37
39	Graphene adsorbed on silk-fibroin meshes: Biomimetic and reversible conformational movements driven by reactions. *Electrochimica Acta*, **2016**, 209, 521-528	6.7	16
38	Artificial Physical and Chemical Awareness (Proprioception) from Polymeric Motors. *Materials Research Society Symposia Proceedings*, **2015**, 1717, 27		
37	Creeping and structural effects in Faradaic artificial muscles. *Journal of Solid State Electrochemistry*, **2015**, 19, 2683-2689	2.6	36
36	Polymeric Artificial Muscles are Linear Faradaic Motors. *Key Engineering Materials*, **2015**, 644, 137-144	0.4	
35	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		1
34	Physical and chemical awareness from sensing polymeric artificial muscles. Experiments and modeling. *Progress in Polymer Science*, **2015**, 44, 62-78	29.6	79

33	Can Human Proprioception Be Described by Physical-Chemical Equations? Proprioceptive Artificial Muscles. *Key Engineering Materials*, **2015**, 644, 145-152	0.4	
32	Polypyrrole Asymmetric Bilayer Artificial Muscle: Driven Reactions, Cooperative Actuation, and Osmotic Effects. *Advanced Functional Materials*, **2015**, 25, 1535-1541	15.6	48
31	Deep Reduced PEDOT Films Support Electrochemical Applications: Biomimetic Color Front. *Frontiers in Bioengineering and Biotechnology*, **2015**, 3, 15	5.8	7
30	Fibroin/Polyaniline microfibrous mat. Preparation and electrochemical characterization as reactive sensor. *Electrochimica Acta*, **2014**, 123, 501-510	6.7	27
29	Ionic exchanges, structural movements and driven reactions in conducting polymers from bending artificial muscles. *Sensors and Actuators B: Chemical*, **2014**, 199, 27-30	8.5	47
28	Structural electrochemistry. Chronopotentiometric responses from rising compacted polypyrrole electrodes: experiments and model. *RSC Advances*, **2014**, 4, 29139-29145	3.7	16
27	Exchanged cations and water during reactions in polypyrrole macroions from artificial muscles. *ChemPhysChem*, **2014**, 15, 293-301	3.2	49
26	Effect of the electrolyte concentration and substrate on conducting polymer actuators. *Langmuir*, **2014**, 30, 3894-904	4	75
25	Polyurethane microfibrous mat templated polypyrrole: Preparation and biomimetic reactive sensing capabilities. *Journal of Electroanalytical Chemistry*, **2014**, 719, 47-53	4.1	20
24	A chemical and electrochemical multivalent memory made from FeNi3-graphene nanocomposites. *Electrochemistry Communications*, **2014**, 39, 15-18	5.1	14
23	Structural Electrochemistry: Conductivities and Ionic Content from Rising Reduced Polypyrrole Films. *Advanced Functional Materials*, **2014**, 24, 1259-1264	15.6	53
22	Structural Electrochemistry from Freestanding Polypyrrole Films: Full Hydrogen Inhibition from Aqueous Solutions. *Advanced Functional Materials*, **2014**, 24, 1265-1274	15.6	41
21	Mechanical awareness from sensing artificial muscles: Experiments and modeling. *Sensors and Actuators B: Chemical*, **2014**, 195, 365-372	8.5	38
20	Biomimetic Structural Electrochemistry from Conducting Polymers: Processes, Charges, and Energies. Coulovoltammetric Results from Films on Metals Revisited. *Advanced Functional Materials* , **2013**, 23, 3929-3940	15.6	72
19	Biomimetic intracellular matrix (ICM) materials, properties and functions. Full integration of actuators and sensors. *Journal of Materials Chemistry B*, **2013**, 1, 26-38	7.3	69
18	Structural and Biomimetic Chemical Kinetics: Kinetic Magnitudes Include Structural Information. *Advanced Functional Materials*, **2013**, 23, 404-416	15.6	54
17	Conducting polymers are simultaneous sensing actuators **2013**,		6
16	Using reactive artificial muscles to determine water exchange during reactions. *Smart Materials and Structures*, **2013**, 22, 104019	3.4	26

15	Fabrication of conductive electrospun silk fibroin scaffolds by coating with polypyrrole for biomedical applications. *Bioelectrochemistry*, **2012**, 85, 36-43	5.6	129
14	Biomimetic electrochemistry from conducting polymers. A review. *Electrochimica Acta*, **2012**, 84, 112-128	6.7	239
13	Biomimetic dual sensing-actuators based on conducting polymers. Galvanostatic theoretical model for actuators sensing temperature. *Journal of Physical Chemistry B*, **2012**, 116, 5279-90	3.4	65
12	Biomimetic dual sensing-actuators: theoretical description. Sensing electrolyte concentration and driving current. *Journal of Physical Chemistry B*, **2012**, 116, 9223-30	3.4	55
11	Artificial Muscles: A Tool To Quantify Exchanged Solvent during Biomimetic Reactions. *Chemistry of Materials*, **2012**, 24, 4093-4099	9.6	55
10	Graphene electrochemical responses sense surroundings. *Electrochimica Acta*, **2012**, 81, 49-57	6.7	23
9	Biomimetic Sensing Actuators Based on Conducting Polymers **2012**,		6
8	Electro-conductive double-network hydrogels. *Journal of Polymer Science, Part B: Polymer Physics*, **2012**, 50, 790-796	2.6	31
7	Electrochemistry of carbon nanotubes: reactive processes, dual sensing-actuating properties and devices. *ChemPhysChem*, **2012**, 13, 2108-14	3.2	23
6	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	0.1	3
5	Electrochemical Kinetics in Dense, Reactive and Wet Gels. Biomimicking Reactions and Devices. *Molecular Crystals and Liquid Crystals*, **2012**, 555, 295-305	0.5	2
4	Sensing characteristics of a conducting polymer/hydrogel hybrid microfiber artificial muscle. *Sensors and Actuators B: Chemical*, **2011**, 160, 1180-1190	8.5	107
3	Activation energy for polypyrrole oxidation: film thickness influence. *Journal of Solid State Electrochemistry*, **2011**, 15, 1169-1178	2.6	39
2	Electrochemical characterization of PEDOT PSS Sorbitol electrodes. Sorbitol changes cation to anion interchange during reactions. *Journal of Electroanalytical Chemistry*, **2011**, 657, 23-27	4.1	23
1	Polypyrrol/chitosan hydrogel hybrid microfiber as sensing artificial muscle **2011**,		4