Javad Foroughi

List of Publications by Year
in descending order

93 papers	5,568 citations	117571 34 h-index	79644 73 g-index
97 all docs	97 docs citations	97 times ranked	6383 citing authors

#	Article	IF	Citations
1	Artificial Muscles from Fishing Line and Sewing Thread. Science, 2014, 343, 868-872.	6.0	1,006
2	Electrically, Chemically, and Photonically Powered Torsional and Tensile Actuation of Hybrid Carbon Nanotube Yarn Muscles. Science, 2012, 338, 928-932.	6.0	585
3	Torsional Carbon Nanotube Artificial Muscles. Science, 2011, 334, 494-497.	6.0	495
4	Selfâ€Healing Hydrogels: The Next Paradigm Shift in Tissue Engineering?. Advanced Science, 2019, 6, 1801664.	5.6	314
5	Sheath-run artificial muscles. Science, 2019, 365, 150-155.	6.0	218
6	Knitted Carbon-Nanotube-Sheath/Spandex-Core Elastomeric Yarns for Artificial Muscles and Strain Sensing. ACS Nano, 2016, 10, 9129-9135.	7.3	189
7	Superelastic Hybrid CNT/Graphene Fibers for Wearable Energy Storage. Advanced Energy Materials, 2018, 8, 1702047.	10.2	165
8	Biopolymers for Antitumor Implantable Drug Delivery Systems: Recent Advances and Future Outlook. Advanced Materials, 2018, 30, e1706665.	11.1	147
9	Soft, Flexible Freestanding Neural Stimulation and Recording Electrodes Fabricated from Reduced Graphene Oxide. Advanced Functional Materials, 2015, 25, 3551-3559.	7.8	117
10	Highly Conductive Carbon Nanotubeâ€Graphene Hybrid Yarn. Advanced Functional Materials, 2014, 24, 5859-5865.	7.8	113
11	Unipolar stroke, electroosmotic pump carbon nanotube yarn muscles. Science, 2021, 371, 494-498.	6.0	110
12	Wearable Electronic Textiles from Nanostructured Piezoelectric Fibers. Advanced Materials Technologies, 2020, 5, 1900900.	3.0	107
13	Piezofibers to smart textiles: a review on recent advances and future outlook for wearable technology. Journal of Materials Chemistry A, 2020, 8, 9496-9522.	5.2	102
14	Triaxial braided piezo fiber energy harvesters for self-powered wearable technologies. Journal of Materials Chemistry A, 2019, 7, 8245-8257.	5.2	96
15	High-performance hybrid carbon nanotube fibers for wearable energy storage. Nanoscale, 2017, 9, 5063-5071.	2.8	95
16	Sulfated polysaccharide-based scaffolds for orthopaedic tissue engineering. Biomaterials, 2019, 214, 119214.	5.7	92
17	Carbon Nanotube Based Fiber Supercapacitor as Wearable Energy Storage. Frontiers in Materials, 2019, 6, .	1.2	86
18	Developments in conducting polymer fibres: from established spinning methods toward advanced applications. RSC Advances, 2016, 6, 44687-44716.	1.7	65

#	Article	IF	Citations
19	Actuator Materials: Review on Recent Advances and
Future Outlook for Smart Textiles. Fibers, 2019, 7, 21.	1.8	63
20	Production of polypyrrole fibres by wet spinning. Synthetic Metals, 2008, 158, 104-107.	2.1	55
21	A reactive wet spinning approach to polypyrrole fibres. Journal of Materials Chemistry, 2011, 21, 6421.	6.7	55
22	Controlled and scalable torsional actuation of twisted nylon 6 fiber. Journal of Polymer Science, Part B: Polymer Physics, 2016, 54, 1278-1286.	2.4	55
23	Bending Analysis of Polymer-Based Flexible Antennas for Wearable, General IoT Applications: A Review. Polymers, 2021, 13, 357.	2.0	54
24	Preparation and characterization of hybrid conducting polymerâ€“carbon nanotube yarn. Nanoscale, 2012, 4, 940-945.	2.8	50
25	Fabrication of a graphene coated nonwoven textile for industrial applications. RSC Advances, 2016, 6, 73203-73209.	1.7	48
26	Highly Stretchable Selfâ€Powered Wearable Electrical Energy Generator and Sensors. Advanced Materials Technologies, 2021, 6, 2000841.	3.0	48
27	Simple and strong: twisted silver painted nylon artificial muscle actuated by Joule heating. Proceedings of SPIE, 2014, , .	0.8	44
28	Hybrid Graphene/Conducting Polymer Strip Sensors for Sensitive and Selective Electrochemical Detection of Serotonin. ACS Omega, 2019, 4, 22169-22177.	1.6	41
29	Nanofibers-Based Piezoelectric Energy Harvester for Self-Powered Wearable Technologies. Polymers, 2020, 12, 2697.	2.0	41
30	Electroactive nanostructured scaffold produced by controlled deposition of PPy on electrospun PCL fibres. Research on Chemical Intermediates, 2017, 43, 1235-1251.	1.3	40
31	Carbon nanotube and graphene fiber artificial muscles. Nanoscale Advances, 2019, 1, 4592-4614.	2.2	39
32	Characterisation of torsional actuation in highly twisted yarns and fibres. Polymer Testing, 2015, 46, 88-97.	2.3	38
33	Fabrication of Coaxial Wetâ€Spun Grapheneâ€“Chitosan Biofibers. Advanced Engineering Materials, 2016, 18, 284-293.	1.6	37
34	Probe Sensor Using Nanostructured Multi-Walled Carbon Nanotube Yarn for Selective and Sensitive Detection of Dopamine. Sensors, 2017, 17, 884.	2.1	37
35	Development and Characterization of Novel Hybrid Hydrogel Fibers. Macromolecular Materials and Engineering, 2015, 300, 1217-1225.	1.7	36
36	Effect of synthesis conditions on the properties of wet spun polypyrrole fibres. Synthetic Metals, 2009, 159, 1837-1843.	2.1	34

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37	The mechanical and the electrical properties of conducting polypyrrole fibers. Journal of Applied Physics, 2010, 107, .	1.1	34
38	Heterogeneous photoelectro-Fenton using ZnO and TiO2 thin film as photocatalyst for photocatalytic degradation Malachite Green. Applied Surface Science Advances, 2021, 6, 100126.	2.9	31
39	Artificial Muscles from Hybrid Carbon Nanotubeâ€Polypyrroleâ€Coated Twisted and Coiled Yarns. Macromolecular Materials and Engineering, 2020, 305, 2000421.	1.7	29
40	Smart Fabrics and Networked Clothing: Recent developments in CNT-based fibers and their continual refinement. IEEE Consumer Electronics Magazine, 2016, 5, 105-111.	2.3	27
41	Nanostructured Electrospun Hybrid Graphene/Polyacrylonitrile Yarns. Nanomaterials, 2017, 7, 293.	1.9	26
42	Electrically Conducting Hydrogel Graphene Nanocomposite Biofibers for Biomedical Applications. Frontiers in Chemistry, 2020, 8, 88.	1.8	26
43	Development and Characterization of a Sucrose Microneedle Neural Electrode Delivery System. Advanced Biology, 2018, 2, 1700187.	3.0	25
44	Preparation and inÂvitro assessment of wet-spun gemcitabine-loaded polymeric fibers: Towards localized drug delivery for the treatment of pancreatic cancer. Pancreatology, 2017, 17, 795-804.	0.5	23
45	Short Oxygen Plasma Treatment Leading to Long-Term Hydrophilicity of Conductive PCL-PPy Nanofiber Scaffolds. Polymers, 2017, 9, 614.	2.0	23
46	Dual high-stroke and highâ€"work capacity artificial muscles inspired by DNA supercoiling. Science Robotics, 2021, 6, .	9.9	23
47	High strain electromechanical actuators based on electrodeposited polypyrrole doped with di-(2-ethylhexyl)sulfosuccinate. Sensors and Actuators B: Chemical, 2011, 155, 278-284.	4.0	21
48	Estimation of mechanical property degradation of poly(lactic acid) and flax fibre reinforced poly(lactic acid) bio-composites during thermal processing. Measurement: Journal of the International Measurement Confederation, 2018, 116, 367-372.	2.5	19
49	3D braided yarns to create electrochemical cells. Electrochemistry Communications, 2015, 61, 27-31.	2.3	18
50	Fabrication of Aligned Biomimetic Gellan Gum-Chitosan Microstructures through 3D Printed Microfluidic Channels and Multiple In Situ Cross-Linking Mechanisms. ACS Biomaterials Science and Engineering, 2020, 6, 3638-3648.	2.6	18
51	Twistâ€"coil coupling fibres for high stroke tensile artificial muscles. Sensors and Actuators A: Physical, 2018, 283, 98-106.	2.0	17
52	Coaxial mussel-inspired biofibers: making of a robust and efficacious depot for cancer drug delivery. Journal of Materials Chemistry B, 2020, 8, 5064-5079.	2.9	17
53	Electrically Contractile Polymers Augment Right Ventricular Output in the Heart. Artificial Organs, 2014, 38, 1034-1039.	1.0	15
54	Effect of anisotropic thermal expansion on the torsional actuation of twist oriented polymer fibres. Polymer, 2017, 129, 127-134.	1.8	15

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55	High Performance Artificial Muscles to Engineer a Ventricular Cardiac Assist Device and Future Perspectives of a Cardiac Sleeve. Advanced Materials Technologies, 2021, 6, 2000894.	3.0	15
56	Triaxial Carbon Nanotube/Conducting Polymer Wet-Spun Fibers Supercapacitors for Wearable Electronics. Nanomaterials, 2021, 11, 3.	1.9	15
57	Brazing techniques for the fabrication of biocompatible carbon-based electronic devices. Carbon, 2016, 107, 180-189.	5.4	14
58	Thermomechanical effects in the torsional actuation of twisted nylon 6 fiber. Journal of Applied Polymer Science, 2017, 134, 45529.	1.3	14
59	Wet-Spun Trojan Horse Cell Constructs for Engineering Muscle. Frontiers in Chemistry, 2020, 8, 18.	1.8	13
60	Wet-Spun Biofiber for Torsional Artificial Muscles. Soft Robotics, 2017, 4, 421-430.	4.6	12
61	An octagonal-shaped conductive HC12 & LIBERATOR-40 thread embroidered chipless RFID for general IoT applications. Sensors and Actuators A: Physical, 2021, 318, 112485.	2.0	12
62	Dynamic Mechanical and Creep Behaviour of Meltspun PVDF Nanocomposite Fibers. Nanomaterials, 2021, 11, 2153.	1.9	12
63	Microwave Characterization of Carbon Nanotube Yarns For UWB Medical Wireless Body Area Networks. IEEE Transactions on Microwave Theory and Techniques, 2013, 61, 3625-3631.	2.9	11
64	Effect of post-spinning on the electrical and electrochemical properties of wet spun graphene fibre. RSC Advances, 2016, 6, 46427-46432.	1.7	11
65	Dual Delivery of Gemcitabine and Paclitaxel by Wetâ€Spun Coaxial Fibers Induces Pancreatic Ductal Adenocarcinoma Cell Death, Reduces Tumor Volume, and Sensitizes Cells to Radiation. Advanced Healthcare Materials, 2020, 9, e2001115.	3.9	11
66	A bladder-free, non-fluidic, conductive McKibben artificial muscle operated electro-thermally. Smart Materials and Structures, 2017, 26, 015011.	1.8	10
67	The charge transport mechanisms in conducting polymer polypyrrole films and fibers. Materials Research Express, 2018, 5, 105701.	0.8	9
68	Twisted and coiled multi-ply yarns artificial muscles. Sensors and Actuators A: Physical, 2021, 318, 112490.	2.0	8
69	Conducting Polymer Fibers. , 2015, , 31-62.		8
70	3D-Printed Coaxial Hydrogel Patches with Mussel-Inspired Elements for Prolonged Release of Gemcitabine. Polymers, 2021, 13, 4367.	2.0	7
71	Effect of conducting polypyrrole on the transport properties of carbon nanotube yarn. Thin Solid Films, 2012, 520, 7049-7053.	0.8	6
72	Novel Bow-Tie Chip-less RFID Tag for Wearable Applications. , 2019, , .		6

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73	Magnetoresistance mechanisms in carbon-nanotube yarns. Synthetic Metals, 2018, 242, 55-60.	2.1	5
74	Enhancing Î² crystal phase content in electrospun PVDF nanofibers. , 0, , 5-1-5-28.		5
75	Hydrogels Fibers. , 0, , .		4
76	Transient Response & Electromagnetic Behaviour of Flexible Bow-Tie Shaped Chip-less RFID Tag for General IoT Applications. Advances in Science, Technology and Engineering Systems, 2020, 5, 757-764.	0.4	4
77	A Silver-Coated Conductive Fibre HC12 Sewed Chipless RFID Tag on Cotton Fabric for Wearable Applications. , 2020, , .		4
78	Carbon Nanotube-Graphene Composites Fibers. , 2018, , 61-86.		3
79	Effects of Bending Bow-Tie Chipless RFID Tag for Different Polymer Substrates. , 2019, , .		3
80	Implantable coaxial nanocomposite biofibers for local chemoâ€photothermal combinational cancer therapy. Nano Select, 0, , .	1.9	3
81	A new approach to develop, characterise and model actuating textiles. Smart Materials and Structures, 2021, 30, 025019.	1.8	3
82	Magnetic, Electrical, and Physical Properties Evolution in Fe3O4 Nanofiller Reinforced Aluminium Matrix Composite Produced by Powder Metallurgy Method. Materials, 2022, 15, 4153.	1.3	3
83	Magnetoreresistance of carbon nanotube-polypyrrole composite yarns. Physica C: Superconductivity and Its Applications, 2018, 548, 78-81.	0.6	2
84	Nanostructured electrically conducting biofibres produced using a reactive wet-spinning process. , 2010, , .		1
85	Advances in Wearable Sensors: Signalling the Provenance of Garments Using Radio Frequency Watermarks. Sensors, 2020, 20, 6661.	2.1	1
86	Conducting Polymer Fibers. , 2014, , 1-27.		1
87	A Fibre Embroidered Chipless RFID Tag on Cotton Fabrics for Wearable Applications. , 2020, , .		1
88	Mechanism of stroke enhancement by coiling in carbon nanotube hybrid yarn artificial muscles (presentation video). , 2014, , .		0
89	Carbon-based torsional and tensile artificial muscles driven by thermal expansion (presentation) Tj ETQq1 1 0.784314 rgBT /Overlock 10	0.8	0
90	Electrothermally Driven Carbon-Based Materials as EAPs: Fundamentals and Device Configurations. , 2016, , 455-470.		0

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91	Advanced Nanostructured Semiconductor Materials: Morphology Controlled Synthesis and Application. Journal of Nanomaterials, 2017, 2017, 1-1.	1.5	0
92	Selfâ€Healable Hydrogels: Selfâ€Healing Hydrogels: The Next Paradigm Shift in Tissue Engineering? (Adv.) Tj ETQq0 0 0 rgBT /Overlock 1	5.6	0
93	Intelligent drug delivery systems. , 2020, , 163-184.		0