Sina Naficy

List of Publications by Year
in descending order

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73 papers	4,588 citations	136950 32 h-index	98798 67 g-index
74 all docs	74 docs citations	74 times ranked	6527 citing authors

#	Article	IF	Citations
1	Artificial Muscles from Fishing Line and Sewing Thread. Science, 2014, 343, 868-872.	12.6	1,006
2	Bio-ink properties and printability for extrusion printing living cells. Biomaterials Science, 2013, 1, 763.	5.4	484
3	Graphene oxide dispersions: tuning rheology to enable fabrication. Materials Horizons, 2014, 1, 326-331.	12.2	276
4	Progress Toward Robust Polymer Hydrogels. Australian Journal of Chemistry, 2011, 64, 1007.	0.9	263
5	Edgeâ€Hydroxylated Boron Nitride Nanosheets as an Effective Additive to Improve the Thermal Response of Hydrogels. Advanced Materials, 2015, 27, 7196-7203.	21.0	227
6	4D Printing of Reversible Shape Morphing Hydrogel Structures. Macromolecular Materials and Engineering, 2017, 302, 1600212.	3.6	190
7	Electrically Conductive, Tough Hydrogels with pH Sensitivity. Chemistry of Materials, 2012, 24, 3425-3433.	6.7	134
8	Cellulose Fibers Enable Near-Zero-Cost Electrical Sensing of Water-Soluble Gases. ACS Sensors, 2019, 4, 1662-1669.	7.8	114
9	Thin, Tough, pH-Sensitive Hydrogel Films with Rapid Load Recovery. ACS Applied Materials & Interfaces, 2014, 6, 4109-4114.	8.0	85
10	Efficient, Absorptionâ€Powered Artificial Muscles Based on Carbon Nanotube Hybrid Yarns. Small, 2015, 11, 3113-3118.	10.0	85
11	Polydiacetylene-based sensors to detect food spoilage at low temperatures. Journal of Materials Chemistry C, 2019, 7, 1919-1926.	5.5	82
12	Mechanical properties of interpenetrating polymer network hydrogels based on hybrid ionically and covalently crosslinked networks. Journal of Applied Polymer Science, 2013, 130, 2504-2513.	2.6	70
13	A Cytocompatible Robust Hybrid Conducting Polymer Hydrogel for Use in a Magnesium Battery. Advanced Materials, 2016, 28, 9349-9355.	21.0	67
14	3D printing of tough hydrogel composites with spatially varying materials properties. Additive Manufacturing, 2017, 14, 24-30.	3.0	59
15	Materials and manufacturing perspectives in engineering heart valves: a review. Materials Today Bio, 2020, 5, 100038.	5.5	59
16	Naked-Eye Detection of Ethylene Using Thiol-Functionalized Polydiacetylene-Based Flexible Sensors. ACS Sensors, 2020, 5, 1921-1928.	7.8	58
17	A pHâ€sensitive, strong doubleâ€network hydrogel: Poly(ethylene glycol) methyl ether methacrylatesâ€“poly(acrylic acid). Journal of Polymer Science, Part B: Polymer Physics, 2012, 50, 423-430.	2.1	57
18	Controlled and scalable torsional actuation of twisted nylon 6 fiber. Journal of Polymer Science, Part B: Polymer Physics, 2016, 54, 1278-1286.	2.1	55

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19	Nanocellulose for Sensing Applications. Advanced Materials Interfaces, 2019, 6, 1900424.	3.7	54
20	Conductive Tough Hydrogel for Bioapplications. Macromolecular Bioscience, 2018, 18, 1700270.	4.1	52
21	Tough and Processable Hydrogels Based on Lignin and Hydrophilic Polyurethane. ACS Applied Bio Materials, 2018, 1, 2073-2081.	4.6	52
22	The effect of geometry and material properties on the performance of a small hydraulic McKibben muscle system. Sensors and Actuators A: Physical, 2015, 234, 150-157.	4.1	51
23	Flexible Sensors for Hydrogen Peroxide Detection: A Critical Review. ACS Applied Materials & Interfaces, 2022, 14, 20491-20505.	8.0	51
24	Simulating Inflammation in a Wound Microenvironment Using a Dermal Woundâ€onâ€aâ€Chip Model. Advanced Healthcare Materials, 2019, 8, e1801307.	7.6	46
25	Carbon dots: a novel platform for biomedical applications. Nanoscale Advances, 2022, 4, 353-376.	4.6	46
26	Modulated release of dexamethasone from chitosanâ€“carbon nanotube films. Sensors and Actuators A: Physical, 2009, 155, 120-124.	4.1	44
27	Simple and strong: twisted silver painted nylon artificial muscle actuated by Joule heating. Proceedings of SPIE, 2014, , .	0.8	44
28	Light-Triggered Soft Artificial Muscles:ÂMolecular-Level Amplification of Actuation Control Signals. Scientific Reports, 2017, 7, 9197.	3.3	41
29	Study of the effective parameters on mechanical and electrical properties of carbon black filled PP/PA6 microfibrillar composites. Composites Science and Technology, 2007, 67, 3233-3241.	7.8	40
30	Characterisation of torsional actuation in highly twisted yarns and fibres. Polymer Testing, 2015, 46, 88-97.	4.8	38
31	Tough hydrogels for soft artificial muscles. Materials and Design, 2021, 203, 109609.	7.0	35
32	Printed, Flexible pH Sensor Hydrogels for Wet Environments. Advanced Materials Technologies, 2018, 3, 1800137.	5.8	34
33	Evaluation of encapsulating coatings on the performance of polypyrrole actuators. Smart Materials and Structures, 2013, 22, 075005.	3.5	33
34	Models of the Gut for Analyzing the Impact of Food and Drugs. Advanced Healthcare Materials, 2019, 8, e1900968.	7.6	32
35	3D/4D Printing Hydrogel Composites: A Pathway to Functional Devices. MRS Advances, 2016, 1, 521-526.	0.9	31
36	Time-dependent mechanical properties of tough ionic-covalent hybrid hydrogels. Polymer, 2015, 65, 253-261.	3.8	27

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37	Drug Delivery Based on Stimuli-Responsive Injectable Hydrogels for Breast Cancer Therapy: A Review. Gels, 2022, 8, 45.	4.5	27
38	Nanostructured Electrospun Hybrid Graphene/Polyacrylonitrile Yarns. Nanomaterials, 2017, 7, 293.	4.1	26
39	Fluorescent Carbonâ€•and Oxygenâ€Doped Hexagonal Boron Nitride Powders as Printing Ink for Anticounterfeit Applications. Advanced Optical Materials, 2019, 7, 1901380.	7.3	26
40	Hydrogelâ^'Solid Hybrid Materials for Biomedical Applications Enabled by Surfaceâ€Embedded Radicals. Advanced Functional Materials, 2020, 30, 2004599.	14.9	26
41	Dual high-stroke and highâ€“work capacity artificial muscles inspired by DNA supercoiling. Science Robotics, 2021, 6, .	17.6	23
42	A microwave powered polymeric artificial muscle. Applied Materials Today, 2021, 23, 101021.	4.3	21
43	Mechanical recoverability and damage process of ionicâ€covalent <scp>PAA</scp>mâ€alginate hybrid hydrogels. Journal of Polymer Science, Part B: Polymer Physics, 2016, 54, 53-63.	2.1	18
44	Tough hydrophilic polyurethane-based hydrogels with mechanical properties similar to human soft tissues. Journal of Materials Chemistry B, 2019, 7, 3512-3519.	5.8	18
45	Nanoassembled Peptide Biosensors for Rapid Detection of Matrilysin Cancer Biomarker. Small, 2020, 16, e1905994.	10.0	18
46	Paperâ€Based, Chemiresistive Sensor for Hydrogen Peroxide Detection. Advanced Materials Technologies, 2021, 6, 2001148.	5.8	18
47	Twistâ€“coil coupling fibres for high stroke tensile artificial muscles. Sensors and Actuators A: Physical, 2018, 283, 98-106.	4.1	17
48	Developing electrically conductive polypropylene/polyamide6/carbon black composites with microfibrillar morphology. Journal of Applied Polymer Science, 2007, 106, 3461-3467.	2.6	16
49	Transparent and conformal 'piezoionic' touch sensor. Proceedings of SPIE, 2015, , .	0.8	16
50	Effect of anisotropic thermal expansion on the torsional actuation of twist oriented polymer fibres. Polymer, 2017, 129, 127-134.	3.8	15
51	A Sequential Debonding Fracture Model for Hydrogenâ€Bonded Hydrogels. Journal of Polymer Science, Part B: Polymer Physics, 2018, 56, 1287-1293.	2.1	15
52	Highly Porous, Biocompatible Tough Hydrogels, Processable via Gel Fiber Spinning and 3D Gel Printing. Advanced Materials Interfaces, 2020, 7, 1901770.	3.7	15
53	Thermally activated paraffin-filled McKibben muscles. Journal of Intelligent Material Systems and Structures, 2016, 27, 2508-2516.	2.5	14
54	Thermomechanical effects in the torsional actuation of twisted nylon 6 fiber. Journal of Applied Polymer Science, 2017, 134, 45529.	2.6	14

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55	Polypeptide-affined interpenetrating hydrogels with tunable physical and mechanical properties. Biomaterials Science, 2019, 7, 926-937.	5.4	11
56	Bond Reformation, Self-Recovery, and Toughness in Hydrogen-Bonded Hydrogels. ACS Applied Polymer Materials, 2020, 2, 5798-5807.	4.4	11
57	Inkjetâ€Printed Alginate Microspheres as Additional Drug Carriers for Injectable Hydrogels. Advances in Polymer Technology, 2016, 35, 439-446.	1.7	10
58	A bladder-free, non-fluidic, conductive McKibben artificial muscle operated electro-thermally. Smart Materials and Structures, 2017, 26, 015011.	3.5	10
59	Solidâ€State Poly(ionic liquid) Gels for Simultaneous CO₂ Adsorption and Electrochemical Reduction. Energy Technology, 2018, 6, 702-709.	3.8	10
60	A Review on Layered Mineral Nanosheets Intercalated with Hydrophobic/Hydrophilic Polymers and Their Applications. Macromolecular Chemistry and Physics, 2018, 219, 1800142.	2.2	10
61	Few-Layered Boron Nitride Nanosheets for Strengthening Polyurethane Hydrogels. ACS Applied Nano Materials, 2021, 4, 7988-7994.	5.0	10
62	Effect of tensile load on the actuation performance of pHâ€sensitive hydrogels. Journal of Polymer Science, Part B: Polymer Physics, 2015, 53, 218-225.	2.1	9
63	Three-Dimensional Printed Braided Sleeves for Manufacturing McKibben Artificial Muscles. 3D Printing and Additive Manufacturing, 2019, 6, 57-62.	2.9	9
64	Engineering a Porous Hydrogel-Based Device for Cell Transplantation. ACS Applied Bio Materials, 2020, 3, 1986-1994.	4.6	9
65	Sensors for food quality and safety. , 2022, , 389-410.		7
66	Electrical Response of Poly(N-[3-(dimethylamino)Propyl] Methacrylamide) to CO₂ at a Long Exposure Period. ACS Omega, 2022, 7, 22232-22243.	3.5	7
67	Ionic interactions to tune mechanical and electrical properties of hydrated liquid crystal graphene oxide films. Materials Chemistry and Physics, 2017, 186, 90-97.	4.0	3
68	Optimized Synthesis of Poly(deoxyribose) Isobutyrate, a Viscous Biomaterial for Bone Morphogenetic Protein-2 Delivery. ACS Applied Materials & Interfaces, 2019, 11, 2870-2879.	8.0	3
69	A green and biodegradable plasticizer from copolymers of poly(Î²â€hydroxybutyrateâ€•co) Tj ETQq1 1 0.784314 rgBT /Overloc	2.6	2
70	Stimuli-responsive hydrogel actuators (presentation video). , 2014, , .		1
71	Mechanism of stroke enhancement by coiling in carbon nanotube hybrid yarn artificial muscles (presentation video). , 2014, , .		0
72	Carbon-based torsional and tensile artificial muscles driven by thermal expansion (presentation) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62	6.8	0

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73	Flexible enzymatic sensors for detection of hydrogen peroxide. , 2021, , .		0