Hugo Rodrigue

List of Publications by Year
in descending order

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51 papers	1,881 citations	257357 24 h-index	265120 42 g-index
51 all docs	51 docs citations	51 times ranked	1591 citing authors

#	Article	IF	Citations
1	A Positive and Negative Pressure Soft Linear Brake for Wearable Applications. IEEE Transactions on Industrial Electronics, 2023, 70, 688-698.	5.2	6
2	Design and Control of Lightweight Bionic Arm Driven by Soft Twisted and Coiled Artificial Muscles. Soft Robotics, 2023, 10, 17-29.	4.6	2
3	Toward the Development of Large-Scale Inflatable Robotic Arms Using Hot Air Welding. Soft Robotics, 2023, 10, 88-96.	4.6	6
4	Armor-Based Stable Force Pneumatic Artificial Muscles for Steady Actuation Properties. Soft Robotics, 2022, 9, 413-424.	4.6	12
5	Towards the Development of Variable Elasticity Devices. IEEE Robotics and Automation Letters, 2022, 7, 2094-2101.	3.3	0
6	Hybrid Robotic Manipulator Using Sensorized Articulated Segment Joints With Soft Inflatable Rubber Bellows. IEEE Transactions on Industrial Electronics, 2022, 69, 10259-10269.	5.2	4
7	Simultaneous Positive and Negative Pressure Control Using Disturbance Observer Compensating Coupled Disturbance Dynamics. IEEE Robotics and Automation Letters, 2022, 7, 5763-5770.	3.3	2
8	Simple and Scalable Soft Actuation Through Coupled Inflatable Tubes. IEEE Access, 2022, , 1-1.	2.6	1
9	Proprioceptive Soft Pneumatic Gripper for Extreme Environments Using Hybrid Optical Fibers. IEEE Robotics and Automation Letters, 2021, 6, 8694-8701.	3.3	25
10	Preface for the Soft and Green Manufacturing and Applications. International Journal of Precision Engineering and Manufacturing - Green Technology, 2021, 8, 743-744.	2.7	1
11	Reconfigurable constriction-based soft actuation for decorative morphing flowers. Journal of Mechanical Science and Technology, 2021, 35, 3705-3712.	0.7	0
12	Shape-Adaptive Universal Soft Parallel Gripper for Delicate Grasping Using a Stiffness-Variable Composite Structure. IEEE Transactions on Industrial Electronics, 2021, 68, 12441-12451.	5.2	22
13	Print-and-Spray Electromechanical Metamaterials. Soft Robotics, 2021, , .	4.6	0
14	Expanding Pouch Motor Patterns for Programmable Soft Bending Actuation: Enabling Soft Robotic System Adaptations. IEEE Robotics and Automation Magazine, 2020, 27, 65-74.	2.2	28
15	A Novel Soft Bending Actuator Using Combined Positive and Negative Pressures. Frontiers in Bioengineering and Biotechnology, 2020, 8, 472.	2.0	22
16	Long Shape Memory Alloy Tendon-based Soft Robotic Actuators and Implementation as a Soft Gripper. Scientific Reports, 2019, 9, 11251.	1.6	111
17	Efficiency of Origami-Based Vacuum Pneumatic Artificial Muscle for Off-Grid Operation. International Journal of Precision Engineering and Manufacturing - Green Technology, 2019, 6, 789-797.	2.7	12
18	Inflatable L-shaped prisms as soft actuators for soft exogloves. Engineering Research Express, 2019, 1, 025009.	0.8	5

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19	Artificial musculoskeletal actuation module driven by twisted and coiled soft actuators. Smart Materials and Structures, 2019, 28, 125010.	1.8	14
20	Film-based anisotropic balloon inflatable bending actuator. Journal of Mechanical Science and Technology, 2019, 33, 4469-4476.	0.7	8
21	Jumping Tensegrity Robot Based on Torsionally Prestrained SMA Springs. ACS Applied Materials & Interfaces, 2019, 11, 40793-40799.	4.0	31
22	Pleated Film-Based Soft Twisting Actuator. International Journal of Precision Engineering and Manufacturing, 2019, 20, 1149-1158.	1.1	9
23	High-Precision Roller Supported by Active Magnetic Bearings. Applied Sciences (Switzerland), 2019, 9, 4389.	1.3	3
24	Sliding Filament Joint Mechanism: Biomimetic Artificial Joint Mechanism for Artificial Skeletal Muscles. Journal of Mechanisms and Robotics, 2019, 11, .	1.5	6
25	Origami-Based Vacuum Pneumatic Artificial Muscles with Large Contraction Ratios. Soft Robotics, 2019, 6, 109-117.	4.6	117
26	Design of Paired Pouch Motors for Robotic Applications. Advanced Materials Technologies, 2019, 4, 1800414.	3.0	33
27	Application of SMA spring tendons for improved grasping performance. Smart Materials and Structures, 2019, 28, 035006.	1.8	17
28	Double Helix Twisted and Coiled Soft Actuator from Spandex and Nylon. Advanced Engineering Materials, 2018, 20, 1800536.	1.6	37
29	Manufacturing 2DOF Inflatable Joint Actuator by Pneumatic Control. The Journal of Korea Robotics Society, 2018, 13, 92-96.	0.2	1
30	Modular assembly of soft deployable structures and robots. Materials Horizons, 2017, 4, 367-376.	6.4	48
31	An Overview of Shape Memory Alloy-Coupled Actuators and Robots. Soft Robotics, 2017, 4, 3-15.	4.6	189
32	Curved shape memory alloy-based soft actuators and application to soft gripper. Composite Structures, 2017, 176, 398-406.	3.1	109
33	Kirigami/Origamiâ€Based Soft Deployable Reflector for Optical Beam Steering. Advanced Functional Materials, 2017, 27, 1604214.	7.8	71
34	Biomimetic robotic joint mechanism driven by soft linear actuators. , 2017, , .		5
35	35â€‰Hz shape memory alloy actuator with bending-twisting mode. Scientific Reports, 2016, 6, 21118.	1.6	92
36	Turtle mimetic soft robot with two swimming gaits. Bioinspiration and Biomimetics, 2016, 11, 036010.	1.5	71

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37	Deployable Soft Composite Structures. Scientific Reports, 2016, 6, 20869.	1.6	63
38	Soft composite hinge actuator and application to compliant robotic gripper. Composites Part B: Engineering, 2016, 98, 397-405.	5.9	84
39	Effect of twist morphing wing segment on aerodynamic performance of UAV. Journal of Mechanical Science and Technology, 2016, 30, 229-236.	0.7	41
40	Shape memory alloy/glass fiber woven composite for soft morphing winglets of unmanned aerial vehicles. Composite Structures, 2016, 140, 202-212.	3.1	61
41	Comparison of mold designs for SMA-based twisting soft actuator. Sensors and Actuators A: Physical, 2016, 237, 96-106.	2.0	26
42	Design and development of bio-mimetic soft robotic hand with shape memory alloy. , 2015, , .		10
43	Fabrication of wrist-like SMA-based actuator by double smart soft composite casting. Smart Materials and Structures, 2015, 24, 125003.	1.8	59
44	A shape memory alloyâ€“based soft morphing actuator capable of pure twisting motion. Journal of Intelligent Material Systems and Structures, 2015, 26, 1071-1078.	1.4	36
45	SMA-based smart soft composite structure capable of multiple modes of actuation. Composites Part B: Engineering, 2015, 82, 152-158.	5.9	61
46	A smart soft actuator using a single shape memory alloy for twisting actuation. Smart Materials and Structures, 2015, 24, 125033.	1.8	51
47	3D soft lithography: A fabrication process for thermocurable polymers. Journal of Materials Processing Technology, 2015, 217, 302-309.	3.1	25
48	Smart Phone Robot Made of Smart Soft Composite (SSC). Composites Research, 2015, 28, 52-57.	0.1	16
49	Locomotion of inchworm-inspired robot made of smart soft composite (SSC). Bioinspiration and Biomimetics, 2014, 9, 046006.	1.5	181
50	Cross-shaped twisting structure using SMA-based smart soft composite. International Journal of Precision Engineering and Manufacturing - Green Technology, 2014, 1, 153-156.	2.7	46
51	Design of a Novel Sensing Method for a Pneumatic Artificial Muscle Actuator-Driven 2-Degrees of Freedom Parallel Joint. Soft Robotics, 0, , .	4.6	1