Hugo Rodrigue

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/3046025/publications.pdf

Version: 2024-02-01

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	An Overview of Shape Memory Alloy-Coupled Actuators and Robots. Soft Robotics, 2017, 4, 3-15.	4.6	189
2	Locomotion of inchworm-inspired robot made of smart soft composite (SSC). Bioinspiration and Biomimetics, 2014, 9, 046006.	1.5	181
3	Origami-Based Vacuum Pneumatic Artificial Muscles with Large Contraction Ratios. Soft Robotics, 2019, 6, 109-117.	4.6	117
4	Long Shape Memory Alloy Tendon-based Soft Robotic Actuators and Implementation as a Soft Gripper. Scientific Reports, 2019, 9, 11251.	1.6	111
5	Curved shape memory alloy-based soft actuators and application to soft gripper. Composite Structures, 2017, 176, 398-406.	3.1	109
6	35â€‰Hz shape memory alloy actuator with bending-twisting mode. Scientific Reports, 2016, 6, 21118.	1.6	92
7	Soft composite hinge actuator and application to compliant robotic gripper. Composites Part B: Engineering, 2016, 98, 397-405.	5.9	84
8	Turtle mimetic soft robot with two swimming gaits. Bioinspiration and Biomimetics, 2016, 11, 036010.	1.5	71
9	Kirigami/Origamiâ€Based Soft Deployable Reflector for Optical Beam Steering. Advanced Functional Materials, 2017, 27, 1604214.	7.8	71
10	Deployable Soft Composite Structures. Scientific Reports, 2016, 6, 20869.	1.6	63
11	SMA-based smart soft composite structure capable of multiple modes of actuation. Composites Part B: Engineering, 2015, 82, 152-158.	5.9	61
12	Shape memory alloy/glass fiber woven composite for soft morphing winglets of unmanned aerial vehicles. Composite Structures, 2016, 140, 202-212.	3.1	61
13	Fabrication of wrist-like SMA-based actuator by double smart soft composite casting. Smart Materials and Structures, 2015, 24, 125003.	1.8	59
14	A smart soft actuator using a single shape memory alloy for twisting actuation. Smart Materials and Structures, 2015, 24, 125033.	1.8	51
15	Modular assembly of soft deployable structures and robots. Materials Horizons, 2017, 4, 367-376.	6.4	48
16	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
17	Effect of twist morphing wing segment on aerodynamic performance of UAV. Journal of Mechanical Science and Technology, 2016, 30, 229-236.	0.7	41
18	Double Helix Twisted and Coiled Soft Actuator from Spandex and Nylon. Advanced Engineering Materials, 2018, 20, 1800536.	1.6	37

#	Article	IF	Citations
19	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
20	Design of Paired Pouch Motors for Robotic Applications. Advanced Materials Technologies, 2019, 4, 1800414.	3.0	33
21	Jumping Tensegrity Robot Based on Torsionally Prestrained SMA Springs. ACS Applied Materials & Interfaces, 2019, 11, 40793-40799.	4.0	31
22	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
23	Comparison of mold designs for SMA-based twisting soft actuator. Sensors and Actuators A: Physical, 2016, 237, 96-106.	2.0	26
24	3D soft lithography: A fabrication process for thermocurable polymers. Journal of Materials Processing Technology, 2015, 217, 302-309.	3.1	25
25	Proprioceptive Soft Pneumatic Gripper for Extreme Environments Using Hybrid Optical Fibers. IEEE Robotics and Automation Letters, 2021, 6, 8694-8701.	3.3	25
26	A Novel Soft Bending Actuator Using Combined Positive and Negative Pressures. Frontiers in Bioengineering and Biotechnology, 2020, 8, 472.	2.0	22
27	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
28	Application of SMA spring tendons for improved grasping performance. Smart Materials and Structures, 2019, 28, 035006.	1.8	17
29	Smart Phone Robot Made of Smart Soft Composite (SSC). Composites Research, 2015, 28, 52-57.	0.1	16
30	Artificial musculoskeletal actuation module driven by twisted and coiled soft actuators. Smart Materials and Structures, 2019, 28, 125010.	1.8	14
31	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
32	Armor-Based Stable Force Pneumatic Artificial Muscles for Steady Actuation Properties. Soft Robotics, 2022, 9, 413-424.	4.6	12
33	Design and development of bio-mimetic soft robotic hand with shape memory alloy. , 2015, , .		10
34	Pleated Film-Based Soft Twisting Actuator. International Journal of Precision Engineering and Manufacturing, 2019, 20, 1149-1158.	1.1	9
35	Film-based anisotropic balloon inflatable bending actuator. Journal of Mechanical Science and Technology, 2019, 33, 4469-4476.	0.7	8
36	Sliding Filament Joint Mechanism: Biomimetic Artificial Joint Mechanism for Artificial Skeletal Muscles. Journal of Mechanisms and Robotics, 2019, 11, .	1.5	6

#	Article	IF	Citations
37	A Positive and Negative Pressure Soft Linear Brake for Wearable Applications. IEEE Transactions on Industrial Electronics, 2023, 70, 688-698.	5.2	6
38	Toward the Development of Large-Scale Inflatable Robotic Arms Using Hot Air Welding. Soft Robotics, 2023, 10, 88-96.	4.6	6
39	Biomimetic robotic joint mechanism driven by soft linear actuators. , 2017, , .		5
40	Inflatable L-shaped prisms as soft actuators for soft exogloves. Engineering Research Express, 2019, 1, 025009.	0.8	5
41	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
42	High-Precision Roller Supported by Active Magnetic Bearings. Applied Sciences (Switzerland), 2019, 9, 4389.	1.3	3
43	Design and Control of Lightweight Bionic Arm Driven by Soft Twisted and Coiled Artificial Muscles. Soft Robotics, 2023, 10, 17-29.	4.6	2
44	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
45	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
46	Manufacturing 2DOF Inflatable Joint Actuator by Pneumatic Control. The Journal of Korea Robotics Society, 2018, 13, 92-96.	0.2	1
47	Simple and Scalable Soft Actuation Through Coupled Inflatable Tubes. IEEE Access, 2022, , 1-1.	2.6	1
48	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
49	Reconfigurable constriction-based soft actuation for decorative morphing flowers. Journal of Mechanical Science and Technology, 2021, 35, 3705-3712.	0.7	0
50	Print-and-Spray Electromechanical Metamaterials. Soft Robotics, 2021, , .	4.6	0
51	Towards the Development of Variable Elasticity Devices. IEEE Robotics and Automation Letters, 2022, 7, 2094-2101.	3.3	0