Joost Brancart

List of Publications by Year
in descending order

40 papers	1,691 citations	331538 21 h-index	330025 37 g-index
41 all docs	41 docs citations	41 times ranked	1428 citing authors

#	Article	IF	Citations
1	Processing of Selfâ€Healing Polymers for Soft Robotics. Advanced Materials, 2022, 34, e2104798.	11.1	80
2	FEA-Based Inverse Kinematic Control: Hyperelastic Material Characterization of Self-Healing Soft Robots. IEEE Robotics and Automation Magazine, 2022, 29, 78-88.	2.2	9
3	Roadmap on soft robotics: multifunctionality, adaptability and growth without borders. Multifunctional Materials, 2022, 5, 032001.	2.4	37
4	A Healable Resistive Heater as a Stimuli-Providing System in Self-Healing Soft Robots. IEEE Robotics and Automation Letters, 2022, 7, 4574-4581.	3.3	11
5	Humins Blending in Thermoreversible Dielsâ€"Alder Networks for Stiffness Tuning and Enhanced Healing Performance for Soft Robotics. Polymers, 2022, 14, 1657.	2.0	5
6	Self-healing sensorized soft robots. , 2022, 1, 100003.		11
7	Magnetic Self-Healing Composites: Synthesis and Applications. Molecules, 2022, 27, 3796.	1.7	15
8	Quasi-Static FEA Model for a Multi-Material Soft Pneumatic Actuator in SOFA. IEEE Robotics and Automation Letters, 2022, 7, 7391-7398.	3.3	2
9	Structureâ€"Property Relationships of Self-Healing Polymer Networks Based on Reversible Dielsâ€"Alder Chemistry. Macromolecules, 2022, 55, 5497-5513.	2.2	19
10	Laser sintering of self-healable and recyclable thermoset networks. European Polymer Journal, 2022, 175, 111383.	2.6	9
11	Towards the understanding of halogenation in peptide hydrogels: a quantum chemical approach. Materials Advances, 2021, 2, 4792-4803.	2.6	3
12	The Influence of the Furan and Maleimide Stoichiometry on the Thermoreversible Dielsâ€"Alder Network Polymerization. Polymers, 2021, 13, 2522.	2.0	16
13	A review on self-healing polymers for soft robotics. Materials Today, 2021, 47, 187-205.	8.3	150
14	Supramolecular Self-Healing Sensor Fiber Composites for Damage Detection in Piezoresistive Electronic Skin for Soft Robots. Polymers, 2021, 13, 2983.	2.0	12
15	Substituent effect on the thermophysical properties and thermal dissociation behaviour of 9-substituted anthracene derivatives. Physical Chemistry Chemical Physics, 2021, 23, 2252-2263.	1.3	4
16	Reversible Lignin-Containing Networks Using Dielsâ€"Alder Chemistry. Macromolecules, 2021, 54, 9750-9760.	2.2	16
17	Thermal dissociation of anthracene photodimers in the condensed state: kinetic evaluation and complex phase behaviour. Physical Chemistry Chemical Physics, 2020, 22, 17306-17313.	1.3	6
18	A novel approach for the closure of large damage in self-healing elastomers using magnetic particles. Polymer, 2020, 204, 122819.	1.8	25

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19	Self-Healing and High Interfacial Strength in Multi-Material Soft Pneumatic Robots via Reversible Dielsâ€“Alder Bonds. Actuators, 2020, 9, 34.	1.2	35
20	Additive Manufacturing for Self-Healing Soft Robots. Soft Robotics, 2020, 7, 711-723.	4.6	54
21	Room Temperature Self-Healing in Soft Pneumatic Robotics: Autonomous Self-Healing in a Diels-Alder Polymer Network. IEEE Robotics and Automation Magazine, 2020, 27, 44-55.	2.2	32
22	Mechanical, physical and chemical characterisation of mycelium-based composites with different types of lignocellulosic substrates. PLoS ONE, 2019, 14, e0213954.	1.1	119
23	A Multi-Material Self-Healing Soft Gripper. , 2019, , .		17
24	Diffusion- and Mobility-Controlled Self-Healing Polymer Networks with Dynamic Covalent Bonding. Macromolecules, 2019, 52, 8440-8452.	2.2	25
25	The influence of stereochemistry on the reactivity of the Dielsâ€“Alder cycloaddition and the implications for reversible network polymerization. Polymer Chemistry, 2019, 10, 473-485.	1.9	61
26	An Inside Perspective on Magma Intrusion: Quantifying 3D Displacement and Strain in Laboratory Experiments by Dynamic X-Ray Computed Tomography. Frontiers in Earth Science, 2019, 7, .	0.8	29
27	Coupling the Microscopic Healing Behaviour of Coatings to the Thermoreversible Diels-Alder Network Formation. Coatings, 2019, 9, 13.	1.2	23
28	A novel donor-Ï€-acceptor anthracene monomer: Towards faster and milder reversible dimerization. Tetrahedron, 2019, 75, 912-920.	1.0	9
29	A Pneumatic Artificial Muscle Manufactured Out of Self-Healing Polymers That Can Repair Macroscopic Damages. IEEE Robotics and Automation Letters, 2018, 3, 16-21.	3.3	39
30	Anthracene-based polyurethane networks: Tunable thermal degradation, photochemical cure and stress-relaxation. European Polymer Journal, 2018, 105, 412-420.	2.6	14
31	Room-temperature versus heating-mediated healing of a Diels-Alder crosslinked polymer network. Polymer, 2018, 153, 453-463.	1.8	37
32	Anthracene-Based Thiolâ€“Ene Networks with Thermo-Degradable and Photo-Reversible Properties. Macromolecules, 2017, 50, 1930-1938.	2.2	59
33	One-component Dielsâ€“Alder based polyurethanes: a unique way to self-heal. RSC Advances, 2017, 7, 48047-48053.	1.7	47
34	Self-healing soft pneumatic robots. Science Robotics, 2017, 2, .	9.9	359
35	Toward Self-Healing Actuators: A Preliminary Concept. IEEE Transactions on Robotics, 2016, 32, 736-743.	7.3	24
36	Development of a self-healing soft pneumatic actuator: a first concept. Bioinspiration and Biomimetics, 2015, 10, 046007.	1.5	38

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37	Investigation of self-healing compliant actuators for robotics. , 2015, , .		9
38	Atomic force microscopyâ€"based study of self-healing coatings based on reversible polymer network systems. Journal of Intelligent Material Systems and Structures, 2014, 25, 40-46.	1.4	36
39	A self-healing polymer network based on reversible covalent bonding. Reactive and Functional Polymers, 2013, 73, 413-420.	2.0	137
40	Self-healing property characterization of reversible thermoset coatings. Journal of Thermal Analysis and Calorimetry, 2011, 105, 805-809.	2.0	58