

Priv-Doz&euroDr Sandra Schlä¨gl

List of Publications by Year in descending order

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87
papers

2,074
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218592

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90
docs citations

90
times ranked

1811
citing authors

#	ARTICLE	IF	CITATIONS
1	Properties of Polymer Composites Used in High-Voltage Applications. <i>Polymers</i> , 2016, 8, 173.	2.0	262
2	The Impact of Vitrimers on the Industry of the Future: Chemistry, Properties and Sustainable Forward-Looking Applications. <i>Polymers</i> , 2020, 12, 1660.	2.0	111
3	Entanglement Effects in Elastomers: Macroscopic vs Microscopic Properties. <i>Macromolecules</i> , 2014, 47, 2759-2773.	2.2	109
4	Polyethylene Nanocomposites for Power Cable Insulations. <i>Polymers</i> , 2019, 11, 24.	2.0	78
5	A Review of Multi-Material 3D Printing of Functional Materials via Vat Photopolymerization. <i>Polymers</i> , 2022, 14, 2449.	2.0	58
6	Digital light processing 3D printing with thiol- α -acrylate vitrimers. <i>Polymer Chemistry</i> , 2021, 12, 639-644.	1.9	53
7	Review on UV-Induced Cationic Frontal Polymerization of Epoxy Monomers. <i>Polymers</i> , 2020, 12, 2146.	2.0	51
8	New strategies towards reversible and mendable epoxy based materials employing [4+4] photocycloaddition and thermal cycloreversion of pendant anthracene groups. <i>Polymer</i> , 2015, 80, 76-87.	1.8	50
9	Inhomogeneities and local chain stretching in partially swollen networks. <i>Soft Matter</i> , 2013, 9, 6943-6954.	1.2	48
10	Stress relaxation and thermally adaptable properties in vitrimer-like elastomers from HXNBR rubber with covalent bonds. <i>Soft Matter</i> , 2019, 15, 6062-6072.	1.2	47
11	Recent Trends in Applying Ortho-Nitrobenzyl Esters for the Design of Photo-Responsive Polymer Networks. <i>Materials</i> , 2020, 13, 2777.	1.3	44
12	Fluorination of elastomer materials. <i>European Polymer Journal</i> , 2011, 47, 2321-2330.	2.6	43
13	Dual crosslinking of carboxylated nitrile butadiene rubber latex employing the thiol-ene photoreaction. <i>Journal of Applied Polymer Science</i> , 2013, 129, 2735-2743.	1.3	40
14	Adhesives for α -debonding-on-demand: Triggered release mechanisms and typical applications. <i>International Journal of Adhesion and Adhesives</i> , 2020, 99, 102585.	1.4	38
15	Design and application of photo-reversible elastomer networks by using the [4+4] cycloaddition reaction of pendant anthracene groups. <i>Polymer</i> , 2016, 102, 10-20.	1.8	37
16	Thiol-ene versus Binary Thiol- α -Acrylate Chemistry: Material Properties and Network Characteristics of Photopolymers. <i>Advanced Engineering Materials</i> , 2017, 19, 1600620.	1.6	37
17	High resolution additive manufacturing with acrylate based vitrimers using organic phosphates as transesterification catalyst. <i>Polymer</i> , 2021, 221, 123631.	1.8	37
18	Introduction of Photolabile Bases for Locally Controlling Dynamic Exchange Reactions in Thermo-Activated Vitrimers. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 14302-14306.	7.2	36

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19	Photo-responsive thiol-ene networks for the design of switchable polymer patterns. <i>Polymer Chemistry</i> , 2017, 8, 1562-1572.	1.9	35
20	Switching on and off the adhesion in stimuli-responsive elastomers. <i>Soft Matter</i> , 2018, 14, 2547-2559.	1.2	34
21	Chemical functionalization of composite surfaces for improved structural bonded repairs. <i>Composites Part B: Engineering</i> , 2015, 69, 296-303.	5.9	33
22	Exploring Network Formation of Tough and Biocompatible Thiol-yne Based Photopolymers. <i>Macromolecular Rapid Communications</i> , 2016, 37, 1701-1706.	2.0	33
23	The crucial role of external force in the estimation of the topology freezing transition temperature of vitrimers by elongational creep measurements. <i>Polymer</i> , 2020, 204, 122804.	1.8	32
24	Recent Advances in Functional Polymers Containing Coumarin Chromophores. <i>Polymers</i> , 2021, 13, 56.	2.0	31
25	Epoxy-Anhydride Vitrimers from Aminoglycidyl Resins with High Glass Transition Temperature and Efficient Stress Relaxation. <i>Polymers</i> , 2020, 12, 1148.	2.0	30
26	Locally controlling dynamic exchange reactions in 3D printed thiol-acrylate vitrimers using dual-wavelength digital light processing. <i>Polymer Chemistry</i> , 2021, 12, 3077-3083.	1.9	27
27	Photo-vulcanization using thiol-ene chemistry: Film formation, morphology and network characteristics of UV crosslinked rubber latices. <i>Polymer</i> , 2014, 55, 5584-5595.	1.8	26
28	Thiol-acrylate based vitrimers: From their structure-property relationship to the additive manufacturing of self-healable soft active devices. <i>Polymer</i> , 2021, 231, 124110.	1.8	25
29	Directed motion of water droplets on multi-gradient photopolymer surfaces. <i>Polymer Chemistry</i> , 2019, 10, 1882-1893.	1.9	24
30	Characteristics of the photochemical prevulcanization in a falling film photoreactor. <i>Journal of Applied Polymer Science</i> , 2012, 124, 3478-3486.	1.3	22
31	Light triggered formation of photo-responsive epoxy based networks. <i>Polymer</i> , 2017, 109, 349-357.	1.8	22
32	Digital light processing 3D printing of modified liquid isoprene rubber using thiol-click chemistry. <i>RSC Advances</i> , 2020, 10, 23607-23614.	1.7	21
33	Photo-switching of surface wettability on micropatterned photopolymers for fast transport of water droplets over a long-distance. <i>Polymer Chemistry</i> , 2020, 11, 3125-3135.	1.9	20
34	Role of Organic Phosphates and Phosphonates in Catalyzing Dynamic Exchange Reactions in Thiol-Click Vitrimers. <i>Macromolecular Chemistry and Physics</i> , 2021, 222, 2100072.	1.1	20
35	Photocleavable epoxy based materials. <i>Polymer</i> , 2015, 69, 159-168.	1.8	19
36	Tailoring the interfaces in glass fiber-reinforced photopolymer composites. <i>Polymer</i> , 2018, 141, 221-231.	1.8	19

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37	Stimuli-responsive thiol-epoxy networks with photo-switchable bulk and surface properties. RSC Advances, 2018, 8, 41904-41914.	1.7	19
38	Design and characterisation of vitrimer-like elastomeric composites from HXNBR rubber. Soft Matter, 2020, 16, 8577-8590.	1.2	19
39	Influence of Thermo-Oxidative Ageing of HNBR in Oil Field Applications. Macromolecular Symposia, 2017, 373, 1600093.	0.4	18
40	Shape memory-assisted self-healing of dynamic thiol-acrylate networks. Polymer Chemistry, 2021, 12, 5704-5714.	1.9	18
41	Significance of epoxy network properties for the toughening effect of flaky and fullerene-like WS ₂ nanoparticles. Journal of Polymer Science, Part B: Polymer Physics, 2016, 54, 1738-1747.	2.4	17
42	Photoactive silica nanoparticles: Influence of surface functionalization on migration and kinetics of radical-induced photopolymerization reactions. European Polymer Journal, 2018, 98, 430-438.	2.6	17
43	Investigating Photocurable Thiol-ene Resins for Biomedical Materials. Macromolecular Materials and Engineering, 2017, 302, 1600450.	1.7	16
44	Photo-patterned natural rubber surfaces with tunable tribological properties. European Polymer Journal, 2015, 66, 236-246.	2.6	15
45	New approaches towards the investigation on defects and failure mechanisms of insulating composites used in high voltage applications. Composites Part B: Engineering, 2014, 58, 83-90.	5.9	14
46	Influence of crosslinker and water on mechanical properties of carboxylated nitrile butadiene rubber (XNBR). Polymer Testing, 2018, 66, 24-31.	2.3	14
47	Streamlined concept towards spatially resolved photoactivation of dynamic transesterification in vitrimeric polymers by applying thermally stable photolabile bases. Polymer Chemistry, 2022, 13, 1169-1176.	1.9	14
48	Spatially controlling the mechanical properties of 3D printed objects by dual-wavelength vat photopolymerization. Additive Manufacturing, 2022, 57, 102977.	1.7	13
49	Survey of chemical residues and biological evaluation of photochemically pre-vulcanized surgical gloves. Monatshefte für Chemie, 2010, 141, 1365-1372.	0.9	12
50	Exploring thiol-ene based monomers as low cytotoxic building blocks for radical photopolymerization. Journal of Polymer Science Part A, 2016, 54, 3484-3494.	2.5	12
51	Efficient initiation of radical-mediated thiol-ene chemistry with photoactive silica particles. Journal of Polymer Science Part A, 2017, 55, 894-902.	2.5	12
52	Functional mechanical metamaterial with independently tunable stiffness in the three spatial directions. Materials Today Advances, 2021, 11, 100155.	2.5	12
53	UV induced microcellular foaming - A new approach towards the production of 3D structures in offset printing techniques. Progress in Organic Coatings, 2012, 73, 54-61.	1.9	11
54	Photopatternable and Rewritable Epoxy-Anhydride Vitrimers. Macromolecular Rapid Communications, 2021, 42, 2000466.	2.0	11

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55	Synthesis and evaluation of new radical photoinitiators bearing trialkoxysilyl groups for surface immobilization. <i>Polymer</i> , 2017, 129, 207-220.	1.8	10
56	Introduction of a New In-Situ Measurement System for the Study of Touch-Feel Relevant Surface Properties. <i>Polymers</i> , 2020, 12, 1380.	2.0	10
57	Effect of formulation and processing conditions on light shielding efficiency of thermotropic systems with fixed domains based on UV curing acrylate resins. <i>Journal of Applied Polymer Science</i> , 2013, 130, 3299-3310.	1.3	9
58	Dual-Responsive Polydimethylsiloxane Networks. <i>Journal of Polymer Science Part A</i> , 2018, 56, 2319-2329.	2.5	9
59	Asymmetric chiral and antichiral mechanical metamaterials with tunable Poisson's ratio. <i>APL Materials</i> , 2022, 10, .	2.2	9
60	Surface Functionalization of Natural Rubber by UV-Induced Thiol-Ene Chemistry. <i>Macromolecular Symposia</i> , 2016, 365, 32-39.	0.4	8
61	Approaches Toward <i>In Situ</i> Reinforcement of Organic Rubbers: Strategy and Recent Progress. <i>Polymer Reviews</i> , 2022, 62, 142-174.	5.3	8
62	Laser-Triggered Writing and Biofunctionalization of Thiol-Ene Networks. <i>Macromolecular Rapid Communications</i> , 2020, 41, e2000084.	2.0	7
63	Assessment of the chemical degradation of PFPE lubricants and greases for space applications: implications for long-term on-ground storage. <i>CEAS Space Journal</i> , 2021, 13, 377-388.	1.1	7
64	Contributions to the Characterization of Chlorinated Polyisoprene Surfaces. <i>Macromolecular Symposia</i> , 2012, 311, 9-17.	0.4	6
65	Photopatternable Epoxy-Based Thermosets. <i>Materials</i> , 2019, 12, 2350.	1.3	6
66	Bonded aerospace repairs under tensile loading: Wet chemical surface treatment and selected environmental conditions. <i>Journal of Applied Polymer Science</i> , 2019, 136, 47506.	1.3	6
67	Tribological characteristics of medical gloves in contact with human skin and skin equivalents. <i>Polymer Testing</i> , 2020, 82, 106318.	2.3	6
68	Effect of Accelerated Aging on the Chemical Signature and Performance of a Multiply-Alkylated Cyclopentane (MAC) Lubricant for Space Applications. <i>Tribology Letters</i> , 2021, 69, 1.	1.2	6
69	Einsatz photolatenter Basen zur lokalen Kontrolle dynamischer Austauschreaktionen in thermisch aktivierbaren Vitrimeren. <i>Angewandte Chemie</i> , 2021, 133, 14422-14427.	1.6	6
70	Effect of a Dicycloaliphatic Epoxide on the Thermo-Mechanical Properties of Alkyl, Aryl Epoxide Monomers Cured via UV-Induced Cationic Frontal Polymerization. <i>Macromolecular Materials and Engineering</i> , 2022, 307, .	1.7	6
71	Flexible epoxy-silicone rubber laminates for high voltage insulations with enhanced delamination resistance. <i>Polymer Composites</i> , 2015, 36, 2238-2247.	2.3	5
72	Hybrid In Situ Reinforcement of EPDM Rubber Compounds Based on Phenolic Novolac Resin and Ionic Coagent. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 2432.	1.3	5

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73	Tailoring the chemical functionalization of a transparent polyethylene foil for its application in an OLED-based DNA biosensor. <i>Applied Surface Science</i> , 2021, 552, 149408.	3.1	4
74	Influence of crosslinker and water on cyclic properties of carboxylated nitrile butadiene rubber (XNBR). <i>Polymer Testing</i> , 2018, 67, 309-321.	2.3	3
75	Tailored Interfaces in Fiber-Reinforced Elastomers: A Surface Treatment Study on Optimized Load Coupling via the Modified Fiber Bundle Debond Technique. <i>Polymers</i> , 2021, 13, 36.	2.0	3
76	Cross-Linking and Evaluation of the Thermo-Mechanical Behavior of Epoxy Based Poly(ionic Liquid) Thermosets. <i>Polymers</i> , 2021, 13, 3914.	2.0	3
77	Assessment of Epoxy Functionalized Poly(dimethylsiloxane) Vitrimers Catalyzed with Covalently Attached Amines as Reversible Adhesives. <i>Macromolecular Materials and Engineering</i> , 2022, 307, .	1.7	3
78	Exploiting the Carbon and Oxa Michael Addition Reaction for the Synthesis of Yne Monomers: Towards the Conversion of Acrylates to Biocompatible Building Blocks. <i>ChemPhotoChem</i> , 2020, 4, 476-480.	1.5	2
79	Hybrid silica micro-particles with light-responsive surface properties and Janus-like character. <i>Polymer Chemistry</i> , 2021, 12, 3925-3938.	1.9	2
80	UV-induced modulation of tribological characteristics: Elastomeric materials featuring controlled anisotropic friction properties. <i>AIP Conference Proceedings</i> , 2016, , .	0.3	1
81	Data on synthesis and thermo-mechanical properties of stimuli-responsive rubber materials bearing pendant anthracene groups. <i>Data in Brief</i> , 2016, 9, 524-529.	0.5	1
82	Spatially Resolved Cross-Linking Characterization by Imaging Low-Coherence Interferometry. <i>Sensors</i> , 2019, 19, 1152.	2.1	1
83	Influence of morphology and chemical surface composition on electrical conductivity of SiC microspheres. <i>Surface Science</i> , 2022, 715, 121942.	0.8	1
84	The influence of surface modification on the electrical properties of silicon carbide flakes. , 2015, , .		0
85	Flexible epoxy based composites with enhanced delamination resistance. <i>AIP Conference Proceedings</i> , 2016, , .	0.3	0
86	Fast Cross-Linking-Characterization of Waveguide-Polymers on Wafers by Imaging Low-Coherence Interferometry. <i>Proceedings (mdpi)</i> , 2018, 2, .	0.2	0
87	Structural Model for the Estimation of the Equivalent Permittivity of Nanodielectrics Based on Polyethylene and Epoxy Resins. <i>IEEE Access</i> , 2021, 9, 123927-123938.	2.6	0