Klaus W StÃ¶ckelhuber

List of Publications by Year
in descending order

119 papers	4,625 citations	109321 35 h-index	110387 64 g-index
124 all docs	124 docs citations	124 times ranked	3584 citing authors

#	Article	IF	Citations
1	Development of Liquid Diene Rubber Based Highly Deformable Interactive Fiber-Elastomer Composites. Materials, 2022, 15, 390.	2.9	6
2	Conductive epoxidized natural rubber nanocomposite with mechanical and electrical performance boosted by hybrid network structures. Polymer Testing, 2022, 108, 107493.	4.8	11
3	Design and fabrication of thermoplastic elastomer with ionic network: A strategy for good performance and shape memory capability. Polymer, 2021, 223, 123699.	3.8	25
4	Understanding the Coupling Effect between Lignin and Polybutadiene Elastomer. Journal of Composites Science, 2021, 5, 154.	3.0	9
5	Effect of phase selective wetting of hybrid filler on the self-healing properties of rubber blends. Polymer, 2021, 231, 124146.	3.8	6
6	Fabrication of a strain sensor from a thermoplastic vulcanizate with an embedded interconnected conducting filler network. Composites Part A: Applied Science and Manufacturing, 2020, 130, 105763.	7.6	37
7	Strain-rate independent small-strain-sensor: Enhanced responsiveness of carbon black filled conductive rubber composites at slow deformation by using an ionic liquid. Composites Science and Technology, 2020, 188, 107972.	7.8	24
8	Poly(acrylonitrile-co-butadiene) as polymeric crosslinking accelerator for sulphur network formation. Heliyon, 2020, 6, e04659.	3.2	10
9	Effect of Prestrain on the Actuation Characteristics of Dielectric Elastomers. Polymers, 2020, 12, 2694.	4.5	2
10	A Comprehensive Study about the Role of Crosslink Density on the Tribological Behavior of DLC Coated Rubber. Materials, 2020, 13, 5460.	2.9	6
11	Highly enhanced electrical and mechanical properties of methyl methacrylate modified natural rubber filled with multiwalled carbon nanotubes. Polymer Testing, 2020, 85, 106417.	4.8	21
12	Friction, Abrasion and Crack Growth Behavior of In-Situ and Ex-Situ Silica Filled Rubber Composites. Materials, 2020, 13, 270.	2.9	13
13	Piezoresistivity - A powerful tool to monitor the behaviour of filler networks in rubber. AIP Conference Proceedings, 2020, , .	0.4	1
14	Water-Responsive and Mechanically Adaptive Natural Rubber Composites by in Situ Modification of Mineral Filler Structures. Journal of Physical Chemistry B, 2019, 123, 5168-5175.	2.6	20
15	In Situ Polymorphic Alteration of Filler Structures for Biomimetic Mechanically Adaptive Elastomer Nanocomposites. ACS Applied Materials & Interfaces, 2018, 10, 16148-16159.	8.0	12
16	Entrapped Styrene Butadiene Polymer Chains by Solâ€"Gel-Derived Silica Nanoparticles with Hierarchical Raspberry Structures. Journal of Physical Chemistry B, 2018, 122, 2010-2022.	2.6	10
17	Conductive elastomer composites with low percolation threshold based on carbon black and epoxidized natural rubber. Polymer Composites, 2018, 39, 1835-1844.	4.6	8
18	Blending In Situ Polyurethane-Urea with Different Kinds of Rubber: Performance and Compatibility Aspects. Materials, 2018, 11, 2175.	2.9	11

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19	Determination of phase specific localization of carbon black in ternary rubber blends: A macroscopic approach by fourier transform infrared spectroscopy (FTIR). Polymer, 2018, 150, 64-71.	3.8	11
20	Viscoelastic and self-healing behavior of silica filled ionically modified poly(isobutylene-<i>co</i>-isoprene) rubber. RSC Advances, 2018, 8, 26793-26803.	3.6	36
21	Bubble rubbing on hydrophobic solid surfaces. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 555, 638-645.	4.7	0
22	High-performance elastomeric strain sensors based on nanostructured carbon fillers for potential tire applications. Materials Today Communications, 2018, 14, 240-248.	1.9	24
23	Compatibilization of poly(vinylidene fluoride)/natural rubber blend by poly(methyl methacrylate) modified natural rubber. European Polymer Journal, 2018, 107, 132-142.	5.4	19
24	Thermoplastic vulcanizates based on poly(vinylidene fluoride)/Epoxidized natural rubber blends: Effects of phenolic resin dosage and blend ratio. Materials Chemistry and Physics, 2018, 219, 222-232.	4.0	14
25	Temperature Scanning Stress Relaxation of an Autonomous Self-Healing Elastomer Containing Non-Covalent Reversible Network Junctions. Polymers, 2018, 10, 94.	4.5	32
26	TIME AND TEMPERATURE DEPENDENT PIEZORESISTIVE BEHAVIOR OF CONDUCTIVE ELASTOMERIC COMPOSITES. Rubber Chemistry and Technology, 2018, 91, 651-667.	1.2	12
27	Experimental analysis of the effect of carbon nanoparticles with different geometry on the appearance of anisotropy of mechanical properties in elastomeric composites. Polymer Testing, 2017, 59, 46-54.	4.8	32
28	Strong Strain Sensing Performance of Natural Rubber Nanocomposites. ACS Applied Materials & Interfaces, 2017, 9, 4860-4872.	8.0	125
29	Filler flocculation in polymers â€“ a simplified model derived from thermodynamics and game theory. Soft Matter, 2017, 13, 3701-3709.	2.7	28
30	Triggering the Selfâ€Healing Properties of Modified Bromobutyl Rubber by Intrinsically Electrical Heating. Macromolecular Materials and Engineering, 2017, 302, 1600385.	3.6	39
31	Superposition approach to the dynamic-mechanical behaviour of reinforced rubbers. Polymer, 2017, 127, 129-140.	3.8	14
32	Visco-elastic-plastic properties of natural rubber filled with carbon black and layered clay nanoparticles. Experiment and simulation. Polymer Testing, 2017, 63, 133-140.	4.8	9
33	Rubber contact mechanics: adhesion, friction and leakage of seals. Soft Matter, 2017, 13, 9103-9121.	2.7	47
34	Dynamically cured poly(vinylidene fluoride)/epoxidized natural rubber blends filled with ferroelectric ceramic barium titanate. Composites Part A: Applied Science and Manufacturing, 2017, 93, 107-116.	7.6	19
35	Self-healing properties of carbon nanotube filled natural rubber/bromobutyl rubber blends. EXPRESS Polymer Letters, 2017, 11, 230-242.	2.1	55
36	DEVELOPMENT OF HIGH PERFORMANCE RUBBER COMPOSITES FROM ALKOXIDE-BASED SILICA AND SOLUTION STYRENEâ€“BUTADIENE RUBBER. Rubber Chemistry and Technology, 2017, 90, 467-486.	1.2	10

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37	Temperature-Dependent Reinforcement of Hydrophilic Rubber Using Ice Crystals. ACS Omega, 2017, 2, 363-371.	3.5	9
38	Filler Wetting in Miscible ESBR/SSBR Blends and Its Effect on Mechanical Properties. Macromolecular Materials and Engineering, 2016, 301, 414-422.	3.6	8
39	Improvement of mechanical performance of solution styrene butadiene rubber by controlling the concentration and the size of in situ derived solâ€"gel silica particles. RSC Advances, 2016, 6, 33643-33655.	3.6	21
40	Nanostructured Ionomeric Elastomers. Advances in Polymer Science, 2016, , 235-266.	0.8	2
41	Piezoresistive natural rubber-multiwall carbon nanotube nanocomposite for sensor applications. Sensors and Actuators A: Physical, 2016, 239, 102-113.	4.1	109
42	Selective wetting of carbon nanotubes in rubber compounds â€" Effect of the ionic liquid as dispersing and coupling agent. European Polymer Journal, 2016, 75, 13-24.	5.4	31
43	Fire-safe and environmentally friendly nanocomposites based on layered double hydroxides and ethylene propylene diene elastomer. RSC Advances, 2016, 6, 26425-26436.	3.6	29
44	Modeling of dynamic-mechanical behavior of reinforced elastomers using a multiscale approach. Polymer, 2016, 82, 356-365.	3.8	23
45	Effect of different ionic liquids on the dispersion and phase selective wetting of carbon nanotubes in rubber blends. Polymer, 2016, 105, 284-297.	3.8	36
46	Reactive Blending of Nitrile Butadiene Rubber and In situ Synthesized Thermoplastic Polyurethaneâ€Urea: Novel Preparation Method and Characterization. Macromolecular Materials and Engineering, 2015, 300, 242-250.	3.6	5
47	Formation and stability of carbon nanotube network in natural rubber: Effect of non-rubber components. Polymer, 2015, 73, 111-121.	3.8	25
48	Highly reinforced blends of nitrile butadiene rubber and in-situ synthesized polyurethaneâ€"urea. European Polymer Journal, 2015, 73, 75-87.	5.4	8
49	Construction of an Interconnected Nanostructured Carbon Black Network: Development of Highly Stretchable and Robust Elastomeric Conductors. Journal of Physical Chemistry C, 2015, 119, 21723-21731.	3.1	68
50	Ionic Modification Turns Commercial Rubber into a Self-Healing Material. ACS Applied Materials & Interfaces, 2015, 7, 20623-20630.	8.0	244
51	â€˜Expanded organoclayâ€™ assisted dispersion and simultaneous structural alterations of multiwall carbon nanotube (MWCNT) clusters in natural rubber. Composites Science and Technology, 2015, 107, 36-43.	7.8	45
52	UNMODIFIED LDH AS REINFORCING FILLER FOR XNBR AND THE DEVELOPMENT OF FLAME-RETARDANT ELASTOMER COMPOSITES. Rubber Chemistry and Technology, 2014, 87, 606-616.	1.2	10
53	Stearate Modified Zinc-Aluminum Layered Double Hydroxides and Acrylonitrile Butadiene Rubber Nanocomposites. Polymer-Plastics Technology and Engineering, 2014, 53, 65-73.	1.9	8
54	Tribology of thin wetting films between bubble and moving solid surface. Advances in Colloid and Interface Science, 2014, 210, 39-46.	14.7	5

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55	Advances in layered double hydroxide (LDH)-based elastomer composites. Progress in Polymer Science, 2014, 39, 594-626.	24.7	213
56	Effect of Nonâ€‹<scp>R</scp>ubber Components of <scp>NR</scp> on the Carbon Nanotube (<scp>CNT</scp>) Localization in <scp>SBR</scp>/<scp>NR</scp> Blends. Macromolecular Materials and Engineering, 2014, 299, 569-582.	3.6	23
57	Nano-scale morphological analysis of grapheneâ€“rubber composites using 3D transmission electron microscopy. RSC Advances, 2014, 4, 9300-9307.	3.6	24
58	Dispersion and distribution of carbon nanotubes in ternary rubber blends. Composites Science and Technology, 2014, 90, 180-186.	7.8	53
59	The role of linked phospholipids in the rubber-filler interaction in carbon nanotube (CNT) filled natural rubber (NR) composites. Polymer, 2014, 55, 4738-4747.	3.8	60
60	Evidence for an in Situ Developed Polymer Phase in Ionic Elastomers. Macromolecules, 2014, 47, 3436-3450.	4.8	79
61	Carbon nanotubesâ€filled thermoplastic polyurethaneâ€“urea and carboxylated acrylonitrile butadiene rubber blend nanocomposites. Journal of Applied Polymer Science, 2014, 131, .	2.6	13
62	Influence of â€œexpanded clayâ€• on the microstructure and fatigue crack growth behavior of carbon black filled NR composites. Composites Science and Technology, 2013, 76, 61-68.	7.8	57
63	Location of dispersing agent in rubber nanocomposites during mixing process. Polymer, 2013, 54, 7009-7021.	3.8	18
64	Reinforcement of Solution Styrene Butadiene Rubber by Silane Functionalized Halloysite Nanotubes. Journal of Macromolecular Science - Pure and Applied Chemistry, 2013, 50, 1091-1106.	2.2	56
65	Selective Wetting and Localization of Silica in Binary and Ternary Blends Based on Styrene Butadiene Rubber, Butadiene Rubber, and Natural Rubber. Macromolecular Materials and Engineering, 2013, 298, 1085-1099.	3.6	17
66	Non-monotonic dependence of the conductivity of carbon nanotube-filled elastomers subjected to uniaxial compression/decompression. Journal of Applied Physics, 2013, 113, .	2.5	22
67	Bubble rubbing on solid surface: Experimental study. Journal of Colloid and Interface Science, 2013, 412, 89-94.	9.4	7
68	Understanding the reinforcing behavior of expanded clay particles in natural rubber compounds. Soft Matter, 2013, 9, 3798.	2.7	90
69	ELASTOMER COMPOSITES BASED ON CARBON NANOTUBES AND IONIC LIQUID. Rubber Chemistry and Technology, 2013, 86, 367-400.	1.2	40
70	Pre-intercalation of long chain fatty acid in the interlayer space of layered silicates and preparation of montmorillonite/natural rubber nanocomposites. Applied Clay Science, 2012, 67-68, 50-56.	5.2	34
71	Rubber composites based on graphene nanoplatelets, expanded graphite, carbon nanotubes and their combination: A comparative study. Composites Science and Technology, 2012, 72, 1961-1967.	7.8	167
72	Carboxylated nitrile butadiene rubber/hybrid filler composites. Materials Research, 2012, 15, 671-678.	1.3	23

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73	Highly Exfoliated Natural Rubber/Clay Composites by â€œProppingâ€Open Procedureâ€: The Influence of Fattyâ€Acid Chain Length on Exfoliation. Macromolecular Materials and Engineering, 2012, 297, 369-383.	3.6	36
74	Silica Transfer in Ternary Rubber Blends: Calculation and Experimental Determination. Macromolecular Materials and Engineering, 2012, 297, 464-473.	3.6	12
75	Influence of modified natural rubber and structure of carbon black on properties of natural rubber compounds. Polymer Composites, 2012, 33, 489-500.	4.6	83
76	Kinetics of filler wetting and dispersion in carbon nanotube/rubber composites. Carbon, 2012, 50, 4543-4556.	10.3	42
77	Enhanced thermal stability of polychloroprene rubber composites with ionic liquid modified MWCNTs. Polymer Degradation and Stability, 2012, 97, 776-785.	5.8	58
78	A Novel Thermotropic Elastomer based on Highlyâ€filled LDHâ€SSB Composites. Macromolecular Rapid Communications, 2012, 33, 337-342.	3.9	22
79	Preparation and characterization of thermoplastic polyurethaneâ€“urea and carboxylated acrylonitrile butadiene rubber blend nanocomposites. Journal of Applied Polymer Science, 2012, 123, 3635-3643.	2.6	7
80	Elastomerâ€“carbon nanotube composites. , 2011, , 193-229.		4
81	Impact of Filler Surface Modification on Large Scale Mechanics of Styrene Butadiene/Silica Rubber Composites. Macromolecules, 2011, 44, 4366-4381.	4.8	318
82	A general approach to rubberâ€“montmorillonite nanocomposites: Intercalation of stearic acid. Applied Clay Science, 2011, 51, 117-125.	5.2	55
83	Wetting films on chemically patterned surfaces. Journal of Colloid and Interface Science, 2011, 363, 663-667.	9.4	12
84	Reinforcement and migration of nanoclay in polychloroprene/ethyleneâ€“propyleneâ€“diene-monomer rubber blends. Composites Science and Technology, 2011, 71, 276-281.	7.8	57
85	OberflÃchenenergetische Charakterisierung. Vakuum in Forschung Und Praxis, 2010, 22, 18-20.	0.1	5
86	Purification, surface modification of coal ash silica and its potential application in rubber composites. Journal of Applied Polymer Science, 2010, 117, NA-NA.	2.6	6
87	Contribution of physico-chemical properties of interfaces on dispersibility, adhesion and flocculation of filler particles in rubber. Polymer, 2010, 51, 1954-1963.	3.8	150
88	Jamming in Filled Polymer Systems. Macromolecular Symposia, 2010, 291-292, 193-201.	0.7	26
89	Routes to Rubber Nanocomposites. Macromolecular Symposia, 2010, 291-292, 95-105.	0.7	6
90	Rubberâ€“Clay Nanocomposites: Some Recent Results. Advances in Polymer Science, 2010, , 85-166.	0.8	55

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91	Influence of Layered Silicate on the Selfâ€Crosslinking of Polychloroprene and Carboxylated Nitrile Rubber. Macromolecular Chemistry and Physics, 2009, 210, 189-199.	2.2	7
92	Advanced elastomer nano-composites based on CNT-hybrid filler systems. Composites Science and Technology, 2009, 69, 2135-2143.	7.8	151
93	Coupling activity of ionic liquids between diene elastomers and multi-walled carbon nanotubes. Carbon, 2009, 47, 3313-3321.	10.3	130
94	Effect of Vulcanization Ingredients on the Intercalationâ€Exfoliation Process of Layered Silicate in an Acrylonitrile Butadiene Rubber Matrix. Macromolecular Materials and Engineering, 2008, 293, 479-490.	3.6	38
95	Polymere Nanokomposite mit anorganischen FunktionsfÃ¼llstoffen. Chemie-Ingenieur-Technik, 2008, 80, 1683-1699.	0.8	15
96	Modified and unmodified multiwalled carbon nanotubes in high performance solution-styreneâ€“butadiene and butadiene rubber blends. Polymer, 2008, 49, 5276-5283.	3.8	273
97	Processing and Properties of Nanocomposites Based on Layered Silicate and Carboxylated Nitrile Rubber. Journal of Macromolecular Science - Pure and Applied Chemistry, 2008, 46, 7-15.	2.2	16
98	Nanoalloy Based on Clays: Intercalatedâ€Exfoliated Layered Silicate in High Performance Elastomer. Journal of Macromolecular Science - Pure and Applied Chemistry, 2008, 45, 144-150.	2.2	30
99	Relaxation dynamics of carboxylated nitrile rubber filled with organomodified nanoclay. EXPRESS Polymer Letters, 2008, 2, 373-381.	2.1	42
100	Silicaâ€Ethylene Propylene Diene Monomer Rubber Networking by<i>In Situ</i>Solâ€Gel Method. Journal of Macromolecular Science - Pure and Applied Chemistry, 2007, 45, 101-106.	2.2	34
101	Rubber curing chemistry governing the orientation of layered silicate. EXPRESS Polymer Letters, 2007, 1, 717-723.	2.1	32
102	Novel amphiphiles with preorganized functionalitiesâ€"formation of Langmuir-films and efficiency in mineral flotation. Advances in Colloid and Interface Science, 2005, 114-115, 291-302.	14.7	10
103	Equilibrium profile and rupture of wetting film on heterogeneous substrates. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2005, 261, 135-140.	4.7	20
104	Stability of TiO2 suspensions in reactors for degradation of toxic pollutants. , 2004, , 117-120.		0
105	Rupture of Wetting Films Caused by Nanobubbles. Langmuir, 2004, 20, 164-168.	3.5	106
106	Stability and rupture of aqueous wetting films. European Physical Journal E, 2003, 12, 431-435.	1.6	35
107	Effect of deposition inhomogeneity on the Ohm resistance of thin electroless copper layers. Journal of Materials Science, 2003, 38, 2703-2707.	3.7	4
108	Metastable water films on hydrophobic silica surfaces. , 2001, , 11-16.		9

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109	The influence of acting forces on the rupture mechanism of wetting films â€” nucleation or capillary waves. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2001, 192, 61-72.	4.7	78
110	First Experimental Proof of the Nonexistence of Long-Range Hydrophobic Attraction Forces in Thin Wetting Films. Chemical Engineering and Technology, 2001, 24, 624-628.	1.5	6
111	Erstmals experimenteller Nachweis fÃ¼r die Nichtexistenz langweitreichender hydrophober AnziehungskrÃ¤fte in dÃ¼nnen Benetzungsfilmen. Chemie-Ingenieur-Technik, 2000, 72, 1216-1220.	0.8	2
112	Disjoining Pressure and Surface Tension of a Small Drop. Langmuir, 2000, 16, 3502-3505.	3.5	26
113	Some new observations on line tension of microscopic droplets. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1999, 156, 323-333.	4.7	44
114	Rupture of thin wetting films on hydrophobic surfaces. Part II: fatty acid Langmuirâ€"Blodgett layers on glass surfaces. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1999, 157, 11-20.	4.7	9
115	Rupture of thin wetting films on hydrophobic surfaces. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1999, 157, 1-9.	4.7	28
116	Regular Stripe Patterns in Skeletonized Langmuirâ ˆ'Blodgett Films of Arachidic Acid. Langmuir, 1999, 15, 8220-8224.	3.5	31
117	Observations of the stability of wetting films on polymerized LB-layers of tricosa-2,4-diynoic acid. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1998, 142, 275-279.	4.7	3
118	Investigation of Langmuir monofilms and flotation experiments with anionic/cationic collector mixtures. International Journal of Mineral Processing, 1998, 53, 135-144.	2.6	46
119	Experiments on convective inâ€plane orientation of monolayers. Makromolekulare Chemie Macromolecular Symposia, 1991, 46, 371-375.	0.6	2