Han Jiang

List of Publications by Year
in descending order

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70 papers	1,708 citations	279487 23 h-index	315357 38 g-index
71 all docs	71 docs citations	71 times ranked	1133 citing authors

#	Article	IF	Citations
1	Dynamic multifunctional devices enabled by ultrathin metal nanocoatings with optical/photothermal and morphological versatility. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	13
2	Time-temperature superposition principle for the shear fracture behaviour of soft adhesive layers: From bulk to interface. International Journal of Adhesion and Adhesives, 2022, 117, 103180.	1.4	2
3	Investigation of zero-degree peeling behavior of visco-hyperelastic highly stretchable adhesive tape on rigid substrate. Engineering Fracture Mechanics, 2021, 241, 107368.	2.0	11
4	Controllable peeling of an elastic strip on a viscoelastic substrate. Engineering Fracture Mechanics, 2021, 256, 107990.	2.0	3
5	Modified cohesive zone model for soft adhesive layer considering rate dependence of intrinsic fracture energy. Engineering Fracture Mechanics, 2021, 258, 108089.	2.0	17
6	Study the safeguarding performance of shear thickening gel by the mechanoluminescence method. Composites Part B: Engineering, 2020, 180, 107564.	5.9	44
7	Preparation and performances of form-stable polyethylene glycol/methylcellulose composite phase change materials. Journal of Polymer Research, 2020, 27, 1.	1.2	13
8	Mechanism of temperature rise due to crazing evolution during PMMA scratch. International Journal of Solids and Structures, 2020, 199, 120-130.	1.3	6
9	Constitutive modeling of the rate- and temperature-dependent macro-yield behavior of amorphous glassy polymers. International Journal of Mechanical Sciences, 2020, 179, 105653.	3.6	28
10	Highly Flexible Multilayered e-Skins for Thermal-Magnetic-Mechanical Triple Sensors and Intelligent Grippers. ACS Applied Materials & Interfaces, 2020, 12, 15675-15685.	4.0	34
11	Effect of fiber content and orientation on the scratch behavior of short glass fiber reinforced PBT composites. Tribology International, 2020, 146, 106221.	3.0	16
12	Finite deformation constitutive model for macro-yield behavior of amorphous glassy polymers with a molecular entanglement-based internal-state variable. International Journal of Mechanical Sciences, 2019, 161-162, 105064.	3.6	13
13	Rate dependent shear debonding between a highly stretchable elastomer and a rigid substrate: Delayed debonding and pre-stretch effect. Engineering Fracture Mechanics, 2019, 222, 106743.	2.0	18
14	Experimental investigation into the failure mechanism of ductile line contact structures. Mechanics of Materials, 2019, 129, 375-380.	1.7	4
15	Experimental and simulation study on stress concentration of graphite components in tension. Mechanics of Materials, 2019, 130, 88-94.	1.7	4
16	A visco-hyperelastic model of brain tissue incorporating both tension/compression asymmetry and volume compressibility. Acta Mechanica, 2019, 230, 2125-2135.	1.1	13
17	A meso-mechanical constitutive model of bulk metallic glass composites considering the local failure of matrix. International Journal of Plasticity, 2019, 115, 238-267.	4.1	18
18	Effect of crystalline content on ratchetting of ultra-high molecular weight polyethylene polymers: Experimental investigation and constitutive model. Mechanics of Materials, 2019, 133, 37-54.	1.7	18

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19	Effect of stress relaxation on accelerated physical aging of hydrogenated nitrile butadiene rubber using time-temperature-strain superposition principle. Advanced Industrial and Engineering Polymer Research, 2019, 2, 61-68.	2.7	10
20	Numerical study on toughening mechanism of bulk metallic glass composites from martensite transformation of toughening phase. Journal of Non-Crystalline Solids, 2019, 506, 88-97.	1.5	8
21	Analytical model of friction behavior during polymer scratching with conical tip. Friction, 2019, 7, 466-478.	3.4	12
22	Investigation of nano-scale scratch and stick-slip behaviors of polycarbonate using atomic force microscopy. Tribology International, 2018, 125, 59-65.	3.0	21
23	Experimental and numerical investigations of evaluation criteria and material parameters' coupling effect on polypropylene scratch. Polymer Engineering and Science, 2018, 58, 118-122.	1.5	15
24	A novel magnetorheological shear-stiffening elastomer with self-healing ability. Composites Science and Technology, 2018, 168, 303-311.	3.8	55
25	Measurement of tensile strength of nuclear graphite based on ring compression test. Journal of Nuclear Materials, 2018, 511, 134-140.	1.3	23
26	Two-Dimensional Frictionless Contact of a Coated Half-Plane Based on Couple Stress Theory. International Journal of Applied Mechanics, 2018, 10, 1850049.	1.3	24
27	Scratch behavior of low density polyethylene film: Effects of pre-stretch and aging. Materials and Design, 2018, 157, 235-243.	3.3	17
28	Inverse identification of tensile and compressive damage properties of graphite material based on a single four-point bending test. Journal of Nuclear Materials, 2018, 509, 445-453.	1.3	16
29	Effect of direct fluorination on the mechanical and scratch performance of nitrile butadiene rubber. Wear, 2017, 376-377, 1314-1320.	1.5	16
30	Modeling of competition between shear yielding and crazing in amorphous polymersâ€™ scratch. International Journal of Solids and Structures, 2017, 124, 215-228.	1.3	38
31	Non-proportional multiaxial ratchetting of ultrahigh molecular weight polyethylene polymer: Experiments and constitutive model. Mechanics of Materials, 2017, 112, 76-87.	1.7	14
32	Time-Dependent Uniaxial Ratchetting of Ultrahigh Molecular Weight Polyethylene Polymer: Viscoelasticâ€“Viscoplastic Constitutive Model. Journal of Applied Mechanics, Transactions ASME, 2016, 83, .	1.1	15
33	Effect of thermal aging on the scratch behavior of poly (methyl methacrylate). Tribology International, 2016, 101, 110-114.	3.0	26
34	Scratch behavior of the aged hydrogenated nitrile butadiene rubber. Wear, 2016, 352-353, 155-159.	1.5	23
35	Effect of relative humidity on uniaxial cyclic softening/hardening and intrinsic heat generation of polyamide-6 polymer. Polymer Testing, 2016, 56, 19-28.	2.3	16
36	Meso-mechanical constitutive model of bulk metallic glass matrix composites. Mechanics of Materials, 2016, 103, 68-77.	1.7	12

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37	Non-proportionally multiaxial cyclic deformation of AZ31 magnesium alloy: Experimental observations. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 671, 70-81.	2.6	30
38	Temperatureâ€dependent uniaxial ratchetting of ultraâ€high molecular weight polyethylene. Fatigue and Fracture of Engineering Materials and Structures, 2016, 39, 839-849.	1.7	14
39	In-situ observation of temperature rise during scratch testing of poly (methylmethacrylate) and polycarbonate. Tribology International, 2016, 95, 1-4.	3.0	28
40	Experimental observation on multiaxial ratchetting of polycarbonate polymer at room temperature. Polymer Testing, 2016, 50, 135-144.	2.3	25
41	Uniaxial cyclic deformation and internal heat production of ultra-high molecular weight polyethylene. Journal of Polymer Research, 2015, 22, 1.	1.2	17
42	Application of time-temperature-stress superposition principle on the accelerated physical aging test of polycarbonate. Polymer Engineering and Science, 2015, 55, 2215-2221.	1.5	15
43	A viscoelastic-plastic constitutive model for uniaxial ratcheting behaviors of polycarbonate. Polymer Engineering and Science, 2015, 55, 2559-2565.	1.5	15
44	Effect of stick-slip on the scratch performance of polypropylene. Tribology International, 2015, 91, 1-5.	3.0	47
45	An experimental study on uniaxial ratcheting of polycarbonate polymers with different molecular weights. Materials & Design, 2015, 67, 644-648.	5.1	23
46	Accelerated ratcheting testing of polycarbonate using the time-temperature-stress equivalence method. Polymer Testing, 2015, 44, 8-14.	2.3	17
47	A new form of equivalent stress for combined axialâ€“torsional loading considering the tensionâ€“compression asymmetry of polymeric materials. RSC Advances, 2015, 5, 72780-72784.	1.7	10
48	Accelerated aging test of hydrogenated nitrile butadiene rubber using the timeâ€“temperatureâ€“strain superposition principle. RSC Advances, 2015, 5, 90178-90183.	1.7	22
49	MECHANICAL PROPERTIES' INFLUENCE ON POLYMER SCRATCH BEHAVIOR: EXPERIMENTAL STUDY AND MECHANISMS ANALYSIS. , 2015, , 45-46.		0
50	Macroscopic and microscopic investigations on uniaxial ratchetting of two-phase Tiâ€“6Alâ€“4V alloy. Materials Characterization, 2014, 92, 26-35.	1.9	26
51	Experimental studies on the uniaxial ratchetting of polycarbonate polymer at different temperatures. Polymer Testing, 2014, 39, 92-100.	2.3	33
52	Multiaxial ratcheting of 20 carbon steel: Macroscopic experiments and microscopic observations. Materials Characterization, 2013, 83, 1-12.	1.9	25
53	Scratch behavior of polymeric materials. , 2013, , 513-550.		3
54	A test procedure for separating viscous recovery and accumulated unrecoverable deformation of polymer under cyclic loading. Polymer Testing, 2013, 32, 1445-1451.	2.3	37

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55	The Fined COD Transform Formula for CT Specimens to Investigate Material Fracture Toughness. Applied Mechanics and Materials, 2012, 188, 11-16.	0.2	2
56	Study of Material Parametersâ€™ Effect on Polymer Scratch Using SOM Method. Advanced Materials Research, 2012, 452-453, 1420-1423.	0.3	0
57	Viscoelastic constitutive model for uniaxial timeâ€dependent ratcheting of polyetherimide polymer. Polymer Engineering and Science, 2012, 52, 1874-1881.	1.5	24
58	Determination of epoxy coating wet-adhesive strength using a standardized ASTM/ISO scratch test. Journal of Coatings Technology Research, 2011, 8, 255-263.	1.2	21
59	Effect of constitutive behavior on scratch visibility resistance of polymersâ€”A finite element method parametric study. Wear, 2011, 270, 751-759.	1.5	48
60	Mechanical Modeling of Scratch Behavior of Polymeric Coatings on Hard and Soft Substrates. Tribology Letters, 2010, 37, 159-167.	1.2	62
61	Quantitative evaluation of scratch visibility resistance of polymers. Applied Surface Science, 2010, 256, 6324-6329.	3.1	68
62	Scratch behavior of epoxy nanocomposites containing Î±â€zirconium phosphate and coreâ€shell rubber particles. Polymer Engineering and Science, 2009, 49, 483-490.	1.5	50
63	Understanding of scratch-induced damage mechanisms in polymers. Polymer, 2009, 50, 4056-4065.	1.8	189
64	Influence of surface roughness and contact load on friction coefficient and scratch behavior of thermoplastic olefins. Applied Surface Science, 2008, 254, 4494-4499.	3.1	106
65	Scratch behavior of soft thermoplastic olefins: effects of ethylene content and testing rate. Journal of Materials Science, 2008, 43, 1357-1365.	1.7	29
66	Integrity of 3LPE Pipeline Coatings: Residual Stresses and Adhesion Degradation. , 2008, , .		5
67	Scratch behavior of polymeric materials. Tribology and Interface Engineering Series, 2008, , 354-373.	0.0	3
68	Finite element method parametric study on scratch behavior of polymers. Journal of Polymer Science, Part B: Polymer Physics, 2007, 45, 1435-1447.	2.4	76
69	An Improved Thermo-Ratcheting Boundary of Pressure Pipeline. Key Engineering Materials, 0, 725, 311-315.	0.4	0
70	Experimental Studies on Deformation Behaviors of Rubbery Materials under Cyclic Loading. Applied Mechanics and Materials, 0, 853, 106-111.	0.2	2