

Nancy R Sottos

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

267
papers

26,749
citations

76
h-index

160
g-index

286
ext. papers

29,523
ext. citations

9.6
avg, IF

7.14
L-index

#	Paper	IF	Citations
267	Rapid multiple-front polymerization of fiber-reinforced polymer composites. <i>Composites Part A: Applied Science and Manufacturing</i> , 2022 , 106931	8.4	3
266	Sacrificial Cyclic Poly(phthalaldehyde) Templates for Low-Temperature Vascularization of Polymer Matrices. <i>ACS Applied Polymer Materials</i> , 2022 , 4, 479-487	4.3	
265	Anisotropic Foams Via Frontal Polymerization. <i>Advanced Materials</i> , 2021 , e2105821	24	2
264	Spontaneous Patterning during Frontal Polymerization. <i>ACS Central Science</i> , 2021 , 7, 603-612	16.8	8
263	Fast, reversible mechanochromism of regioisomeric oxazine mechanophores: Developing in situ responsive force probes for polymeric materials. <i>CheM</i> , 2021 , 7, 1080-1091	16.2	28
262	Rapid synchronized fabrication of vascularized thermosets and composites. <i>Nature Communications</i> , 2021 , 12, 2836	17.4	9
261	Survey of Catalysts for Frontal Ring-Opening Metathesis Polymerization. <i>Macromolecules</i> , 2021 , 54, 5117-5123	5.5	1238
260	Autonomous Strategies for Improved Performance and Reliability of Li-Ion Batteries. <i>Advanced Energy Materials</i> , 2021 , 11, 2003139	21.8	11
259	Autonomous Healing and Indication of Transverse Crack Damage in Carbon Fiber Composite Laminates. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2021 , 1-3	0.3	
258	In Situ Strain Measurement in Solid-State Li-Ion Battery Electrodes. <i>Journal of the Electrochemical Society</i> , 2021 , 168, 010516	3.9	7
257	Single carbon fiber transverse electrical resistivity measurement via the van der Pauw method. <i>Journal of Applied Physics</i> , 2021 , 130, 115105	2.5	2
256	Localization of Spiropyran Activation. <i>Langmuir</i> , 2020 , 36, 5847-5854	4	2
255	Shock Wave Energy Dissipation in Catalyst-Free Poly(dimethylsiloxane) Vitrimers. <i>Macromolecules</i> , 2020 , 53, 4741-4747	5.5	13
254	A polarization reconfigurable microstrip patch antenna using liquid metal microfluidics. <i>Smart Materials and Structures</i> , 2020 , 29, 045032	3.4	1
253	Interfacial Force-Focusing Effect in Mechanophore-Linked Nanocomposites. <i>Advanced Science</i> , 2020 , 7, 1903464	13.6	14
252	Grand challenges in the design and manufacture of vascular self-healing. <i>Multifunctional Materials</i> , 2020 , 3, 013001	5.2	11
251	Triggered Transience of Plastic Materials by a Single Electron Transfer Mechanism. <i>ACS Central Science</i> , 2020 , 6, 266-273	16.8	12

250	Mechanophore-Functionalized Nanoparticles: Interfacial Force-Focusing Effect in Mechanophore-Linked Nanocomposites (Adv. Sci. 7/2020). <i>Advanced Science</i> , 2020 , 7, 2070037	13.6	78
249	Force-Modulated Equilibria of Mechanophore-Metal Coordinate Bonds. <i>Chemistry of Materials</i> , 2020 , 32, 3869-3878	9.6	6
248	Cross-Linking Agents for Enhanced Performance of Thermosets Prepared via Frontal Ring-Opening Metathesis Polymerization. <i>Macromolecules</i> , 2020 , 53, 8360-8366	5.5	9
247	Rapid Synthesis of Elastomers and Thermosets with Tunable Thermomechanical Properties. <i>ACS Macro Letters</i> , 2020 , 9, 819-824	6.6	21
246	Frontal polymerization of unidirectional carbon-fiber-reinforced composites. <i>Composites Part A: Applied Science and Manufacturing</i> , 2020 , 130, 105689	8.4	21
245	Sunlight-Activated Self-Healing Polymer Coatings. <i>Advanced Engineering Materials</i> , 2020 , 22, 1901223	3.5	16
244	Photoexcitation of Grubbs's Second-Generation Catalyst Initiates Frontal Ring-Opening Metathesis Polymerization. <i>ACS Macro Letters</i> , 2020 , 9, 1563-1568	6.6	9
243	Photothermal Initiation of Frontal Polymerization Using Carbon Nanoparticles. <i>ACS Applied Polymer Materials</i> , 2020 , 2, 4690-4696	4.3	11
242	Fabrication of pH-responsive monodisperse microcapsules using interfacial tension of immiscible phases. <i>Soft Matter</i> , 2020 , 16, 5139-5147	3.6	5
241	Digital Texture Voxels for Stretchable Morphing Skin Applications. <i>Advanced Materials Technologies</i> , 2019 , 4, 1900260	6.8	12
240	Self-healing of impact damage in fiber-reinforced composites. <i>Composites Part B: Engineering</i> , 2019 , 173, 106808	10	11
239	Effect of Polymerized Ionic Liquid Structure and Morphology on Shockwave Energy Dissipation. <i>ACS Macro Letters</i> , 2019 , 535-539	6.6	8
238	Self-healing of fatigue damage in cross-ply glass/epoxy laminates. <i>Composites Science and Technology</i> , 2019 , 175, 122-127	8.6	18
237	Light-triggered thermal conductivity switching in azobenzene polymers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 5973-5978	11.5	56
236	A Robust Patterning Technique for Electron Microscopy-Based Digital Image Correlation at Sub-Micron Resolutions. <i>Experimental Mechanics</i> , 2019 , 59, 1063-1073	2.6	14
235	Manufacture of carbon-fiber prepreg with thermoplastic/epoxy resin blends and microencapsulated solvent healing agents. <i>Composites Part A: Applied Science and Manufacturing</i> , 2019 , 121, 365-375	8.4	13
234	Spatially Selective and Density-Controlled Activation of Interfacial Mechanophores. <i>Journal of the American Chemical Society</i> , 2019 , 141, 4080-4085	16.4	31
233	Cathode/Electrolyte Interface-Dependent Changes in Stress and Strain in Lithium Iron Phosphate Composite Cathodes. <i>Journal of the Electrochemical Society</i> , 2019 , 166, A2707-A2714	3.9	4

232	Controlling Expansion in Lithium Manganese Oxide Composite Electrodes via Surface Modification. <i>Journal of the Electrochemical Society</i> , 2019 , 166, A2357-A2362	3.9	7
231	Strain and stress mapping by mechanochemical activation of spiropyran in poly(methyl methacrylate). <i>Strain</i> , 2019 , 55, e12310	1.7	16
230	Rapid Degradation of Poly(lactic acid) with Organometallic Catalysts. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 46226-46232	9.5	6
229	Tracking capsule activation and crack healing in a microcapsule-based self-healing polymer. <i>Scientific Reports</i> , 2019 , 9, 17773	4.9	12
228	Fully Recyclable Metastable Polymers and Composites. <i>Chemistry of Materials</i> , 2019 , 31, 398-406	9.6	31
227	Processing-dependent mechanical properties of solvent cast cyclic polyphthalaldehyde. <i>Polymer</i> , 2019 , 162, 29-34	3.9	6
226	Biomimetics: Restoration of Impact Damage in Polymers via a Hybrid Microcapsule-Microvascular Self-Healing System (Adv. Funct. Mater. 2/2018). <i>Advanced Functional Materials</i> , 2018 , 28, 1870012	15.6	2
225	Direct Detection of Manganese Ions in Organic Electrolyte by UV-vis Spectroscopy. <i>Journal of the Electrochemical Society</i> , 2018 , 165, A345-A348	3.9	9
224	Core-Shell Microcapsules Containing Flame Retardant Tris(2-chloroethyl phosphate) for Lithium-Ion Battery Applications. <i>ACS Omega</i> , 2018 , 3, 1609-1613	3.9	15
223	Cyclic Poly(phthalaldehyde): Thermoforming a Bulk Transient Material. <i>ACS Macro Letters</i> , 2018 , 7, 47-52	6.6	33
222	Interfacial Mechanophore Activation Using Laser-Induced Stress Waves. <i>Journal of the American Chemical Society</i> , 2018 , 140, 5000-5003	16.4	26
221	Damage-Responsive Microcapsules for Amplified Photoacoustic Detection of Microcracks in Polymers. <i>Chemistry of Materials</i> , 2018 , 30, 2198-2202	9.6	17
220	Strain Evolution in Lithium Manganese Oxide Electrodes. <i>Experimental Mechanics</i> , 2018 , 58, 561-571	2.6	20
219	Effect of microchannels on the crashworthiness of fiber-reinforced composites. <i>Composite Structures</i> , 2018 , 184, 428-436	5.3	13
218	Rapid energy-efficient manufacturing of polymers and composites via frontal polymerization. <i>Nature</i> , 2018 , 557, 223-227	50.4	161
217	Restoration of Impact Damage in Polymers via a Hybrid Microcapsule-Microvascular Self-Healing System. <i>Advanced Functional Materials</i> , 2018 , 28, 1704197	15.6	34
216	Autonomous Damage Detection in Multilayered Coatings via Integrated Aggregation-Induced Emission Luminogens. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 40361-40365	9.5	23
215	Mechanical Reactivity of Two Different Spiropyran Mechanophores in Polydimethylsiloxane. <i>Macromolecules</i> , 2018 , 51, 9177-9183	5.5	75

214	Self-Protecting Epoxy Coatings with Anticorrosion Microcapsules. <i>ACS Omega</i> , 2018 , 3, 14157-14164	3.9	20
213	Enhanced Mixing of Microvascular Self-Healing Reagents Using Segmented Gas-Liquid Flow. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 32659-32667	9.5	7
212	Effects of interface roughness on cohesive strength of self-assembled monolayers. <i>Applied Surface Science</i> , 2017 , 397, 192-198	6.7	1
211	Silicon Composite Electrodes with Dynamic Ionic Bonding. <i>Advanced Energy Materials</i> , 2017 , 7, 1700045	21.8	31
210	Electrochemical Stiffness Changes in Lithium Manganese Oxide Electrodes. <i>Advanced Energy Materials</i> , 2017 , 7, 1601778	21.8	18
209	Multi-scale model of effects of roughness on the cohesive strength of self-assembled monolayers. <i>International Journal of Fracture</i> , 2017 , 208, 131-143	2.3	
208	Alkyl Phosphite Inhibitors for Frontal Ring-Opening Metathesis Polymerization Greatly Increase Pot Life. <i>ACS Macro Letters</i> , 2017 , 6, 609-612	6.6	47
207	Low-Ceiling-Temperature Polymer Microcapsules with Hydrophobic Payloads via Rapid Emulsion-Solvent Evaporation. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 20115-20123	9.5	21
206	Regenerative Polymeric Coatings Enabled by Pressure Responsive Surface Valves . <i>Advanced Engineering Materials</i> , 2017 , 19, 1700308	3.5	2
205	Robust sacrificial polymer templates for 3D interconnected microvasculature in fiber-reinforced composites. <i>Composites Part A: Applied Science and Manufacturing</i> , 2017 , 100, 361-370	8.4	23
204	A Microvascular System for the Autonomous Regeneration of Large Scale Damage in Polymeric Coatings . <i>Advanced Engineering Materials</i> , 2017 , 19, 1700319	3.5	5
203	Time Release of Encapsulated Additives for Enhanced Performance of Lithium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 40244-40251	9.5	8
202	Manufacturing of unidirectional glass/epoxy prepreg with microencapsulated liquid healing agents. <i>Composites Science and Technology</i> , 2017 , 153, 190-197	8.6	15
201	Repeated healing of delamination damage in vascular composites by pressurized delivery of reactive agents. <i>Composites Science and Technology</i> , 2017 , 151, 1-9	8.6	15
200	Mechanisms and characterization of impact damage in 2D and 3D woven fiber-reinforced composites. <i>Composites Part A: Applied Science and Manufacturing</i> , 2017 , 101, 432-443	8.4	52
199	Comparison of Compression-After-Impact and Flexure-After-Impact protocols for 2D and 3D woven fiber-reinforced composites. <i>Composites Part A: Applied Science and Manufacturing</i> , 2017 , 101, 471-479	8.4	35
198	A Robust Damage-Reporting Strategy for Polymeric Materials Enabled by Aggregation-Induced Emission. <i>ACS Central Science</i> , 2016 , 2, 598-603	16.8	87
197	Reversible and Irreversible Deformation Mechanisms of Composite Graphite Electrodes in Lithium-Ion Batteries. <i>Journal of the Electrochemical Society</i> , 2016 , 163, A1965-A1974	3.9	31

196	Malleable and Recyclable Poly(urea-urethane) Thermosets bearing Hindered Urea Bonds. <i>Advanced Materials</i> , 2016 , 28, 7646-51	24	230
195	Effect of Mechanical Stress on Spiropyran-Merocyanine Reaction Kinetics in a Thermoplastic Polymer. <i>ACS Macro Letters</i> , 2016 , 5, 1312-1316	6.6	30
194	Characterization of core-shell microstructure and self-healing performance of electrospun fiber coatings. <i>Polymer</i> , 2016 , 107, 263-272	3.9	44
193	Active Cooling of a Microvascular Shape Memory Alloy-Polymer Matrix Composite Hybrid Material. <i>Advanced Engineering Materials</i> , 2016 , 18, 1145-1153	3.5	17
192	Autonomous Indication of Mechanical Damage in Polymeric Coatings. <i>Advanced Materials</i> , 2016 , 28, 2189-94	2.4	76
191	Strategies for Volumetric Recovery of Large Scale Damage in Polymers. <i>Advanced Functional Materials</i> , 2016 , 26, 4561-4569	15.6	15
190	Polymers with autonomous life-cycle control. <i>Nature</i> , 2016 , 540, 363-370	50.4	215
189	A NURBS-based generalized finite element scheme for 3D simulation of heterogeneous materials. <i>Journal of Computational Physics</i> , 2016 , 318, 373-390	4.1	14
188	Damage Detection: Autonomous Indication of Mechanical Damage in Polymeric Coatings (Adv. Mater. 11/2016). <i>Advanced Materials</i> , 2016 , 28, 2275-2275	24	4
187	Survival of actively cooled microvascular polymer matrix composites under sustained thermomechanical loading. <i>Composites Part A: Applied Science and Manufacturing</i> , 2016 , 82, 170-179	8.4	14
186	Nanoscale mechanical tailoring of interfaces using self-assembled monolayers. <i>Mechanics of Materials</i> , 2016 , 98, 71-80	3.3	5
185	Automatic Optical Crack Tracking for Double Cantilever Beam Specimens. <i>Experimental Techniques</i> , 2016 , 40, 937-945	1.4	5
184	Regioisomer-Specific Mechanochromism of Naphthopyran in Polymeric Materials. <i>Journal of the American Chemical Society</i> , 2016 , 138, 12328-31	16.4	117
183	Crystal Structure, Thermal Properties, and Shock-Wave-Induced Nucleation of 1,2-Bis(phenylethynyl)benzene. <i>Crystal Growth and Design</i> , 2016 , 16, 6148-6151	3.5	4
182	Electrochemical stiffness in lithium-ion batteries. <i>Nature Materials</i> , 2016 , 15, 1182-1187	27	85
181	Energy Absorption Behavior of Polyurea Under Laser-Induced Dynamic Mixed-Mode Loading. <i>Journal of Dynamic Behavior of Materials</i> , 2016 , 2, 379-390	1.8	8
180	Biopolymers: Multidimensional Vascularized Polymers using Degradable Sacrificial Templates (Adv. Funct. Mater. 7/2015). <i>Advanced Functional Materials</i> , 2015 , 25, 1042-1042	15.6	
179	Retention of mechanical performance of polymer matrix composites above the glass transition temperature by vascular cooling. <i>Composites Part A: Applied Science and Manufacturing</i> , 2015 , 78, 412-423	8.4	24

178	Self-healing thermoplastic-toughened epoxy. <i>Polymer</i> , 2015 , 74, 254-261	3.9	41
177	Repeatable self-healing of an epoxy matrix using imidazole initiated polymerization. <i>Polymer</i> , 2015 , 67, 174-184	3.9	41
176	Autonomic healing of PMMA via microencapsulated solvent. <i>Polymer</i> , 2015 , 69, 241-248	3.9	24
175	Core-shell polymeric microcapsules with superior thermal and solvent stability. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 10952-6	9.5	68
174	Multidimensional Vascularized Polymers using Degradable Sacrificial Templates. <i>Advanced Functional Materials</i> , 2015 , 25, 1043-1052	15.6	48
173	Autonomic healing of acrylic bone cement. <i>Advanced Healthcare Materials</i> , 2015 , 4, 202-7	10.1	16
172	Transient Electronics: Thermally Triggered Degradation of Transient Electronic Devices (Adv. Mater. 25/2015). <i>Advanced Materials</i> , 2015 , 27, 3782-3782	24	
171	Biomimetische Selbstheilung. <i>Angewandte Chemie</i> , 2015 , 127, 10572-10593	3.6	21
170	Thermally triggered degradation of transient electronic devices. <i>Advanced Materials</i> , 2015 , 27, 3783-8	24	122
169	Biomimetic Self-Healing. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 10428-47	16.4	271
168	Shock-Induced Ordering in a Nano-segregated Network-Forming Ionic Liquid. <i>Journal of the American Chemical Society</i> , 2015 , 137, 16000-3	16.4	8
167	Electropolymerization of Microencapsulated 3-hexylthiophene for Lithium-Ion Battery Applications. <i>Journal of the Electrochemical Society</i> , 2015 , 162, A373-A377	3.9	5
166	A NURBS-based interface-enriched generalized finite element method for problems with complex discontinuous gradient fields. <i>International Journal for Numerical Methods in Engineering</i> , 2015 , 101, 950-964	2.4	19
165	Shockwave loading of mechanochemically active polymer coatings. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 5350-5	9.5	61
164	Interfacial adhesion of photodefinable polyimide films on passivated silicon. <i>Thin Solid Films</i> , 2014 , 552, 116-123	2.2	29
163	Continuous self-healing life cycle in vascularized structural composites. <i>Advanced Materials</i> , 2014 , 26, 4302-8	24	167
162	Modeling mechanophore activation within a viscous rubbery network. <i>Journal of the Mechanics and Physics of Solids</i> , 2014 , 63, 141-153	5	42
161	Restoration of large damage volumes in polymers. <i>Science</i> , 2014 , 344, 620-3	33.3	198

160	Tensile properties and damage evolution in vascular 3D woven glass/epoxy composites. <i>Composites Part A: Applied Science and Manufacturing</i> , 2014 , 59, 9-17	8.4	52
159	Triggered transience of metastable poly(phthalaldehyde) for transient electronics. <i>Advanced Materials</i> , 2014 , 26, 7637-42	24	139
158	Structural reinforcement of microvascular networks using electrostatic layer-by-layer assembly with halloysite nanotubes. <i>Soft Matter</i> , 2014 , 10, 544-8	3.6	26
157	Molecular tailoring of interfacial failure. <i>Langmuir</i> , 2014 , 30, 11096-102	4	19
156	Enhanced autonomic shutdown of Li-ion batteries by polydopamine coated polyethylene microspheres. <i>Journal of Power Sources</i> , 2014 , 269, 735-739	8.9	27
155	Fracture-induced activation in mechanophore-linked, rubber toughened PMMA. <i>Polymer</i> , 2014 , 55, 4164-4171	3.9	65
154	Microencapsulation of gallium-indium (Ga-In) liquid metal for self-healing applications. <i>Journal of Microencapsulation</i> , 2014 , 31, 350-4	3.4	48
153	Polymer mechanochemistry: Flex, release and repeat. <i>Nature Chemistry</i> , 2014 , 6, 381-3	17.6	27
152	The Effect of Polymer Chain Alignment and Relaxation on Force-Induced Chemical Reactions in an Elastomer. <i>Advanced Functional Materials</i> , 2014 , 24, 1529-1537	15.6	72
151	Microencapsulated Carbon Black Suspensions for Restoration of Electrical Conductivity. <i>Advanced Functional Materials</i> , 2014 , 24, 2947-2956	15.6	31
150	In Situ Measurements of Strains in Composite Battery Electrodes during Electrochemical Cycling. <i>Experimental Mechanics</i> , 2014 , 54, 971-985	2.6	111
149	Autonomic healing of carbon fiber/epoxy interfaces. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 6033-9	9.5	58
148	Carbon Black: Microencapsulated Carbon Black Suspensions for Restoration of Electrical Conductivity (Adv. Funct. Mater. 20/2014). <i>Advanced Functional Materials</i> , 2014 , 24, 2922-2922	15.6	
147	Thermally stable autonomic healing in epoxy using a dual-microcapsule system. <i>Advanced Materials</i> , 2014 , 26, 282-7	24	156
146	Simultaneous Observation of Phase-Stepped Images for Photoelasticity Using Diffraction Gratings. <i>Experimental Mechanics</i> , 2013 , 53, 1343-1355	2.6	4
145	Microfluidically Switched Frequency-Reconfigurable Slot Antennas. <i>IEEE Antennas and Wireless Propagation Letters</i> , 2013 , 12, 828-831	3.8	47
144	Self-Healing Epoxies and Their Composites 2013 , 361-380		9
143	Computational analysis of actively-cooled 3D woven microvascular composites using a stabilized interface-enriched generalized finite element method. <i>International Journal of Heat and Mass Transfer</i> , 2013 , 65, 153-164	4.9	41

142	Full recovery of fiber/matrix interfacial bond strength using a microencapsulated solvent-based healing system. <i>Composites Science and Technology</i> , 2013 , 79, 1-7	8.6	47
141	Fracture behavior of a self-healing, toughened epoxy adhesive. <i>International Journal of Adhesion and Adhesives</i> , 2013 , 44, 157-165	3.4	76
140	High-affinity DNA base analogs as supramolecular, nanoscale promoters of macroscopic adhesion. <i>Journal of the American Chemical Society</i> , 2013 , 135, 7288-95	16.4	66
139	Interfacial adhesive properties between a rigid-rod pyromellitimide molecular layer and a covalent semiconductor via atomistic simulations. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 4702-11	9.5	7
138	Exploiting Force Sensitive Spiropyrans as Molecular Level Probes. <i>Macromolecules</i> , 2013 , 46, 3746-3752	5.5	109
137	Time-Dependent Mechanochemical Response of SP-Cross-Linked PMMA. <i>Macromolecules</i> , 2013 , 46, 8917-8921	5.5	53
136	Self-sealing of mechanical damage in a fully cured structural composite. <i>Composites Science and Technology</i> , 2013 , 79, 15-20	8.6	36
135	Self-healing thermoset using encapsulated epoxy-amine healing chemistry. <i>Polymer</i> , 2012 , 53, 581-587	3.9	267
134	Autonomic restoration of electrical conductivity. <i>Advanced Materials</i> , 2012 , 24, 398-401	24	243
133	Self-Healing Circuits: Autonomic Restoration of Electrical Conductivity (Adv. Mater. 3/2012). <i>Advanced Materials</i> , 2012 , 24, 397-397	24	2
132	Chemical treatment of poly(lactic acid) fibers to enhance the rate of thermal depolymerization. <i>ACS Applied Materials & Interfaces</i> , 2012 , 4, 503-9	9.5	51
131	Role of Mechanophore Orientation in Mechanochemical Reactions.. <i>ACS Macro Letters</i> , 2012 , 1, 163-166	6.6	90
130	Microvascular based self-healing polymeric foam. <i>Polymer</i> , 2012 , 53, 4231-4240	3.9	66
129	Mitigation of fatigue damage in self-healing vascular materials. <i>Polymer</i> , 2012 , 53, 5575-5581	3.9	23
128	A self-healing conductive ink. <i>Advanced Materials</i> , 2012 , 24, 2578-81, 2509	24	135
127	Effects of chemical bonding on heat transport across interfaces. <i>Nature Materials</i> , 2012 , 11, 502-6	27	458
126	Proton-coupled mechanochemical transduction: a mechanogenerated acid. <i>Journal of the American Chemical Society</i> , 2012 , 134, 12446-9	16.4	163
125	Autonomic Shutdown of Lithium-Ion Batteries Using Thermo-responsive Microspheres. <i>Advanced Energy Materials</i> , 2012 , 2, 583-590	21.8	130

124	Computational modeling and design of actively-cooled microvascular materials. <i>International Journal of Heat and Mass Transfer</i> , 2012 , 55, 5309-5321	4.9	36
123	Pressurized vascular systems for self-healing materials. <i>Journal of the Royal Society Interface</i> , 2012 , 9, 1020-8	4.1	62
122	Autonomic restoration of electrical conductivity using polymer-stabilized carbon nanotube and graphene microcapsules. <i>Applied Physics Letters</i> , 2012 , 101, 043106	3.4	44
121	Shear activation of mechanophore-crosslinked polymers. <i>Journal of Materials Chemistry</i> , 2011 , 21, 8381		141
120	Visual indication of mechanical damage using core-shell microcapsules. <i>ACS Applied Materials & Interfaces</i> , 2011 , 3, 4547-51	9.5	48
119	Triggered Release From Polymer Capsules. <i>Macromolecules</i> , 2011 , 44, 5539-5553	5.5	487
118	Silica-protected micron and sub-micron capsules and particles for self-healing at the microscale. <i>Macromolecular Rapid Communications</i> , 2011 , 32, 82-7	4.8	64
117	Accelerated Self-Healing Via Ternary Interpenetrating Microvascular Networks. <i>Advanced Functional Materials</i> , 2011 , 21, 4320-4326	15.6	76
116	Three-dimensional microvascular fiber-reinforced composites. <i>Advanced Materials</i> , 2011 , 23, 3654-8	24	178
115	Hybrid Materials: Three-Dimensional Microvascular Fiber-Reinforced Composites (Adv. Mater. 32/2011). <i>Advanced Materials</i> , 2011 , 23, 3653-3653	24	1
114	Environmental effects on mechanochemical activation of spiropyran in linear PMMA. <i>Journal of Materials Chemistry</i> , 2011 , 21, 8443		115
113	Characterizing the mechanochemically active domains in gem-dihalocyclopropanated polybutadiene under compression and tension. <i>Journal of Materials Chemistry</i> , 2011 , 21, 8454		78
112	Adhesion promotion via noncovalent interactions in self-healing polymers. <i>ACS Applied Materials & Interfaces</i> , 2011 , 3, 3072-7	9.5	33
111	Structural health management technologies for inflatable/deployable structures: Integrating sensing and self-healing. <i>Acta Astronautica</i> , 2011 , 68, 883-903	2.9	36
110	Fracture and fatigue response of a self-healing epoxy adhesive. <i>Polymer</i> , 2011 , 52, 1628-1634	3.9	96
109	Self-healing Polymers and Composites. <i>American Scientist</i> , 2011 , 99, 392	2.7	36
108	Mechanical Characterization of Synthetic Vascular Materials. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2011 , 291-294	0.3	
107	Polymer Microvascular Network Composites. <i>Journal of Composite Materials</i> , 2010 , 44, 2587-2603	2.7	58

106	A Self-sealing Fiber-reinforced Composite. <i>Journal of Composite Materials</i> , 2010 , 44, 2573-2585	2.7	53
105	Force-induced redistribution of a chemical equilibrium. <i>Journal of the American Chemical Society</i> , 2010 , 132, 16107-11	16.4	213
104	Self-Healing Polymers 2010 ,		8
103	Autonomic healing of low-velocity impact damage in fiber-reinforced composites. <i>Composites Part A: Applied Science and Manufacturing</i> , 2010 , 41, 360-368	8.4	137
102	Robust, double-walled microcapsules for self-healing polymeric materials. <i>ACS Applied Materials & Interfaces</i> , 2010 , 2, 1195-9	9.5	173
101	Programmable microcapsules from self-immolative polymers. <i>Journal of the American Chemical Society</i> , 2010 , 132, 10266-8	16.4	172
100	Microencapsulation of a Reactive Liquid-Phase Amine for Self-Healing Epoxy Composites. <i>Macromolecules</i> , 2010 , 43, 1855-1859	5.5	141
99	Masked cyanoacrylates unveiled by mechanical force. <i>Journal of the American Chemical Society</i> , 2010 , 132, 4558-9	16.4	134
98	Self-Healing Polymers and Composites. <i>Annual Review of Materials Research</i> , 2010 , 40, 179-211	12.8	990
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