

Stephen Craig

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6611415/publications.pdf>

Version: 2024-02-01

168
papers

12,919
citations

12303

69
h-index

25716

108
g-index

183
all docs

183
docs citations

183
times ranked

9214
citing authors

#	ARTICLE	IF	CITATIONS
1	Molecular Encapsulation. <i>Angewandte Chemie - International Edition</i> , 2002, 41, 1488-1508.	7.2	859
2	Small-Molecule Dynamics and Mechanisms Underlying the Macroscopic Mechanical Properties of Coordinatively Cross-Linked Polymer Networks. <i>Journal of the American Chemical Society</i> , 2005, 127, 14488-14496.	6.6	335
3	Mechanochemical Activation of Covalent Bonds in Polymers with Full and Repeatable Macroscopic Shape Recovery. <i>ACS Macro Letters</i> , 2014, 3, 216-219.	2.3	309
4	Large-Area Cross-Aligned Silver Nanowire Electrodes for Flexible, Transparent, and Force-Sensitive Mechanochromic Touch Screens. <i>ACS Nano</i> , 2017, 11, 4346-4357.	7.3	287
5	Molekulare Verkapselung. <i>Angewandte Chemie</i> , 2002, 114, 1556-1578.	1.6	286
6	From molecular mechanochemistry to stress-responsive materials. <i>Journal of Materials Chemistry</i> , 2011, 21, 1655-1663.	6.7	285
7	Trapping a Diradical Transition State by Mechanochemical Polymer Extension. <i>Science</i> , 2010, 329, 1057-1060.	6.0	280
8	Gas-Phase Ionic Reactions: Dynamics and Mechanism of Nucleophilic Displacements. <i>Science</i> , 1998, 279, 1882-1886.	6.0	279
9	Mechanochemical strengthening of a synthetic polymer in response to typically destructive shear forces. <i>Nature Chemistry</i> , 2013, 5, 757-761.	6.6	266
10	1,2,3-Triazole CH ₂ ...Cl ⁺ Contacts Guide Anion Binding and Concomitant Folding in 1,4-Diaryl Triazole Oligomers. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 3740-3743.	7.2	261
11	Strong Means Slow: Dynamic Contributions to the Bulk Mechanical Properties of Supramolecular Networks. <i>Angewandte Chemie - International Edition</i> , 2005, 44, 2746-2748.	7.2	226
12	Cephalopod-inspired design of electro-mechano-chemically responsive elastomers for on-demand fluorescent patterning. <i>Nature Communications</i> , 2014, 5, 4899.	5.8	202
13	<i>gem</i> -Dichlorocyclopropanes as Abundant and Efficient Mechanophores in Polybutadiene Copolymers under Mechanical Stress. <i>Journal of the American Chemical Society</i> , 2009, 131, 10818-10819.	6.6	193
14	Force-Rate Characterization of Two Spiropyran-Based Molecular Force Probes. <i>Journal of the American Chemical Society</i> , 2015, 137, 6148-6151.	6.6	183
15	Inducing and quantifying forbidden reactivity with single-molecule polymer mechanochemistry. <i>Nature Chemistry</i> , 2015, 7, 323-327.	6.6	182
16	A backbone lever-arm effect enhances polymer mechanochemistry. <i>Nature Chemistry</i> , 2013, 5, 110-114.	6.6	179
17	Orthogonal Control of Dissociation Dynamics Relative to Thermodynamics in a Main-Chain Reversible Polymer. <i>Journal of the American Chemical Society</i> , 2003, 125, 15302-15303.	6.6	168
18	Self-healing biomaterials. <i>Journal of Biomedical Materials Research - Part A</i> , 2011, 96A, 492-506.	2.1	166

#	ARTICLE	IF	CITATIONS
19	Physical Organic Chemistry of Supramolecular Polymers. <i>Langmuir</i> , 2007, 23, 1626-1634.	1.6	159
20	The role of polymer mechanochemistry in responsive materials and additive manufacturing. <i>Nature Reviews Materials</i> , 2021, 6, 84-98.	23.3	151
21	Molecular Characterization of Polymer Networks. <i>Chemical Reviews</i> , 2021, 121, 5042-5092.	23.0	140
22	Single-Molecule Force Spectroscopy of Bimolecular Reactions: A System Homology in the Mechanical Activation of Ligand Substitution Reactions. <i>Journal of the American Chemical Society</i> , 2006, 128, 3886-3887.	6.6	139
23	BigSMILES: A Structurally-Based Line Notation for Describing Macromolecules. <i>ACS Central Science</i> , 2019, 5, 1523-1531.	5.3	134
24	Covalent Bond Scission in the Mullins Effect of a Filled Elastomer: Real-Time Visualization with Mechanoluminescence. <i>Advanced Functional Materials</i> , 2016, 26, 9063-9074.	7.8	132
25	Mechanically Induced Scission and Subsequent Thermal Remending of Perfluorocyclobutane Polymers. <i>Journal of the American Chemical Society</i> , 2011, 133, 17882-17888.	6.6	131
26	A hybrid polymer gel with controlled rates of cross-link rupture and self-repair. <i>Journal of the Royal Society Interface</i> , 2007, 4, 373-380.	1.5	129
27	Molecular Stress Relief through a Force-Induced Irreversible Extension in Polymer Contour Length. <i>Journal of the American Chemical Society</i> , 2010, 132, 15936-15938.	6.6	126
28	Detection and Mechanistic Studies of Multicomponent Assembly by Fluorescence Resonance Energy Transfer. <i>Journal of the American Chemical Society</i> , 2000, 122, 7876-7882.	6.6	124
29	Toughening hydrogels through force-triggered chemical reactions that lengthen polymer strands. <i>Science</i> , 2021, 374, 193-196.	6.0	124
30	Rational Control of Viscoelastic Properties in Multicomponent Associative Polymer Networks. <i>Macromolecules</i> , 2005, 38, 10171-10177.	2.2	120
31	Anion Binding of Short, Flexible Aryl Triazole Oligomers. <i>Journal of Organic Chemistry</i> , 2009, 74, 8924-8934.	1.7	120
32	Emergent mechanical properties of self-assembled polymeric capsules. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2000, 97, 12418-12421.	3.3	118
33	Mechanism of Shear Thickening in Reversibly Cross-Linked Supramolecular Polymer Networks. <i>Macromolecules</i> , 2010, 43, 3556-3565.	2.2	116
34	Molecular engineering of mechanophore activity for stress-responsive polymeric materials. <i>Chemical Science</i> , 2015, 6, 2158-2165.	3.7	114
35	Regiochemical Effects on Mechanophore Activation in Bulk Materials. <i>Journal of the American Chemical Society</i> , 2018, 140, 15969-15975.	6.6	114
36	A Hierarchical Nanoparticle-in-Micropore Architecture for Enhanced Mechanosensitivity and Stretchability in Mechanochromic Electronic Skins. <i>Advanced Materials</i> , 2019, 31, e1808148.	11.1	113

#	ARTICLE	IF	CITATIONS
37	A Latent Mechanoacid for Time-Stamped Mechanochromism and Chemical Signaling in Polymeric Materials. <i>Journal of the American Chemical Society</i> , 2020, 142, 99-103.	6.6	110
38	Steric Effects and Solvent Effects in Ionic Reactions. <i>Science</i> , 2002, 295, 2245-2247.	6.0	108
39	Mechanical gating of a mechanochemical reaction cascade. <i>Nature Communications</i> , 2016, 7, 13433.	5.8	107
40	Stress-Responsive Polymers Containing Cyclobutane Core Mechanophores: Reactivity and Mechanistic Insights. <i>Journal of the American Chemical Society</i> , 2013, 135, 13598-13604.	6.6	105
41	Relative Mechanical Strengths of Weak Bonds in Sonochemical Polymer Mechanochemistry. <i>Journal of the American Chemical Society</i> , 2015, 137, 10826-10832.	6.6	104
42	Surface-mediated reactions. 1. Hydrohalogenation of alkenes and alkynes. <i>Journal of the American Chemical Society</i> , 1990, 112, 7433-7434.	6.6	103
43	Protein polymer hydrogels by in situ, rapid and reversible self-gelation. <i>Biomaterials</i> , 2012, 33, 5451-5458.	5.7	102
44	Mechanochemically Active Soft Robots. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 22431-22435.	4.0	102
45	Amplification by compartmentalization. <i>Nature</i> , 2002, 415, 385-386.	13.7	100
46	Chiral Guests and Their Ghosts in Reversibly Assembled Hosts. <i>Angewandte Chemie - International Edition</i> , 2000, 39, 2130-2132.	7.2	97
47	Mechanochemical Strengthening of a Multi-mechanophore Benzocyclobutene Polymer. <i>ACS Macro Letters</i> , 2015, 4, 834-837.	2.3	96
48	Empowering mechanochemistry with multi-mechanophore polymer architectures. <i>Polymer Chemistry</i> , 2018, 9, 3583-3593.	1.9	96
49	Modular, Well-Behaved Reversible Polymers from DNA-Based Monomers. <i>Angewandte Chemie - International Edition</i> , 2002, 41, 4026-4028.	7.2	95
50	Enzymatic Nanolithography of a Self-Assembled Oligonucleotide Monolayer on Gold. <i>Journal of the American Chemical Society</i> , 2004, 126, 4770-4771.	6.6	93
51	A coumarin dimer probe of mechanochemical scission efficiency in the sonochemical activation of chain-centered mechanophore polymers. <i>Chemical Communications</i> , 2015, 51, 9157-9160.	2.2	92
52	A Remote Stereochemical Lever Arm Effect in Polymer Mechanochemistry. <i>Journal of the American Chemical Society</i> , 2014, 136, 15162-15165.	6.6	89
53	Increasing the Maximum Achievable Strain of a Covalent Polymer Gel Through the Addition of Mechanically Invisible Crosslinks. <i>Advanced Materials</i> , 2014, 26, 6013-6018.	11.1	88
54	Substituent Effects and Mechanism in a Mechanochemical Reaction. <i>Journal of the American Chemical Society</i> , 2018, 140, 12746-12750.	6.6	88

#	ARTICLE	IF	CITATIONS
55	Mechanochemical remodeling of synthetic polymers. <i>Polymer</i> , 2012, 53, 1035-1048.	1.8	87
56	Tension Trapping of Carbonyl Ylides Facilitated by a Change in Polymer Backbone. <i>Journal of the American Chemical Society</i> , 2012, 134, 9577-9580.	6.6	86
57	Mechanically Gated Degradable Polymers. <i>Journal of the American Chemical Society</i> , 2020, 142, 2105-2109.	6.6	85
58	Photomechanical Actuation of Ligand Geometry in Enantioselective Catalysis. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 14508-14511.	7.2	84
59	Quantitative and Mechanistic Mechanochemistry in Ferrocene Dissociation. <i>ACS Macro Letters</i> , 2018, 7, 1174-1179.	2.3	84
60	Mechanics of mechanochemically responsive elastomers. <i>Journal of the Mechanics and Physics of Solids</i> , 2015, 82, 320-344.	2.3	82
61	Characterizing the mechanochemically active domains in gem-dihalocyclopropanated polybutadiene under compression and tension. <i>Journal of Materials Chemistry</i> , 2011, 21, 8454.	6.7	81
62	Surface-mediated reactions. 3. Hydrohalogenation of alkenes. <i>Journal of the American Chemical Society</i> , 1993, 115, 3071-3079.	6.6	80
63	Surface-Mediated Reactions. 6. Effects of Silica Gel and Alumina on Acid-Catalyzed Reactions. <i>Journal of Organic Chemistry</i> , 1995, 60, 4146-4152.	1.7	79
64	Thermodynamics of DNA Hybridization on Gold Nanoparticles. <i>Journal of the American Chemical Society</i> , 2005, 127, 13227-13231.	6.6	79
65	Scaling Laws in Supramolecular Polymer Networks. <i>Macromolecules</i> , 2011, 44, 5465-5472.	2.2	79
66	A tour of force. <i>Nature</i> , 2012, 487, 176-177.	13.7	77
67	Steric and Solvation Effects in Ionic S _N 2 Reactions. <i>Journal of the American Chemical Society</i> , 2009, 131, 16162-16170.	6.6	72
68	“Too Small, Too Big, and Just Right” Optical Sensing of Molecular Conformations in Self-Assembled Capsules. <i>Journal of the American Chemical Society</i> , 2009, 131, 13190-13191.	6.6	72
69	Mechanochromic Stretchable Electronics. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 29918-29924.	4.0	72
70	Divergent Shear Thinning and Shear Thickening Behavior of Supramolecular Polymer Networks in Semidilute Entangled Polymer Solutions. <i>Macromolecules</i> , 2011, 44, 2343-2353.	2.2	68
71	Structure and Properties of DNA-Based Reversible Polymers. <i>Macromolecules</i> , 2004, 37, 1863-1870.	2.2	67
72	Distal conformational locks on ferrocene mechanophores guide reaction pathways for increased mechanochemical reactivity. <i>Nature Chemistry</i> , 2021, 13, 56-62.	6.6	67

#	ARTICLE	IF	CITATIONS
73	Mechanochemically triggered bond formation in solid-state polymers. <i>Journal of Materials Chemistry</i> , 2011, 21, 8460.	6.7	66
74	Reactive Cross-Talk between Adjacent Tension-Trapped Transition States. <i>Journal of the American Chemical Society</i> , 2011, 133, 3222-3225.	6.6	63
75	Mechanistic Insights into the Sonochemical Activation of Multimechanophore Cyclopropanated Polybutadiene Polymers. <i>Macromolecules</i> , 2015, 48, 6396-6403.	2.2	61
76	Quantitative Adjustment to the Molecular Energy Parameter in the Lake-Thomas Theory of Polymer Fracture Energy. <i>Macromolecules</i> , 2019, 52, 2772-2777.	2.2	60
77	An NMR Study of the Rates of Single-Molecule Exchange in a Cylindrical Host Capsule. <i>Journal of the American Chemical Society</i> , 2002, 124, 8780-8781.	6.6	59
78	Generalizing metallocene mechanochemistry to ruthenocene mechanophores. <i>Chemical Science</i> , 2019, 10, 4959-4965.	3.7	59
79	Photoswitchable Sol-Gel Transitions and Catalysis Mediated by Polymer Networks with Coumarin-Decorated Cu ₂₄ L ₂₄ Metal-Organic Cages as Junctions. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 2784-2792.	7.2	58
80	Reactivity and Mechanism of a Mechanically Activated <i>anti</i> -Woodward-Hoffmann-DePuy Reaction. <i>Journal of the American Chemical Society</i> , 2015, 137, 11554-11557.	6.6	56
81	Bicyclo[3.2.0]heptane Mechanophores for the Non-scissile and Photochemically Reversible Generation of Reactive Bis-enones. <i>Journal of the American Chemical Society</i> , 2012, 134, 12939-12942.	6.6	55
82	Guest exchange in an encapsulation complex: A supramolecular substitution reaction. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1999, 96, 8344-8347.	3.3	54
83	Strain Hardening and Strain Softening of Reversibly Cross-Linked Supramolecular Polymer Networks. <i>Macromolecules</i> , 2011, 44, 7478-7488.	2.2	54
84	Chemical amplification with encapsulated reagents. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002, 99, 2593-2596.	3.3	50
85	From Ionic Liquids to Supramolecular Polymers. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 2645-2647.	7.2	50
86	Enhanced polymer mechanical degradation through mechanochemically unveiled lactonization. <i>Nature Communications</i> , 2020, 11, 4987.	5.8	48
87	Emergent Conformational Preferences of a Self-Assembling Small Molecule: Structure and Dynamics in a Tetrameric Capsule. <i>Journal of the American Chemical Society</i> , 2000, 122, 10991-10996.	6.6	47
88	The SN ₂ Identity Exchange Reaction 37Cl ⁻ + 35ClCH ₂ CN. <i>Journal of the American Chemical Society</i> , 1994, 116, 2213-2214.	6.6	46
89	Reversibly Cross-Linked Surface-Grafted Polymer Brushes. <i>Angewandte Chemie - International Edition</i> , 2006, 45, 7812-7814.	7.2	46
90	Branching Ratios in Activated Systems. <i>Journal of Physical Chemistry A</i> , 1997, 101, 19-24.	1.1	45

#	ARTICLE	IF	CITATIONS
91	Surface-to-Surface Bridges Formed by Reversibly Assembled Polymers. <i>Journal of the American Chemical Society</i> , 2004, 126, 3038-3039.	6.6	45
92	Chemoresponsive viscosity switching of a metallo-supramolecular polymer network near the percolation threshold. <i>Journal of Materials Chemistry</i> , 2007, 17, 56-61.	6.7	45
93	Rheological Properties of Cysteine-Containing Elastin-Like Polypeptide Solutions and Hydrogels. <i>Biomacromolecules</i> , 2012, 13, 2315-2321.	2.6	45
94	Accelerating a Mechanically Driven <i>anti</i> -Woodward Hoffmann Ring Opening with a Polymer Lever Arm Effect. <i>Journal of Organic Chemistry</i> , 2015, 80, 11895-11898.	1.7	43
95	Dynamic Memory Effects in the Mechanochemistry of Cyclic Polymers. <i>Journal of the American Chemical Society</i> , 2019, 141, 10943-10947.	6.6	41
96	Screening of hyaluronic acid-poly(ethylene glycol) composite hydrogels to support intervertebral disc cell biosynthesis using artificial neural network analysis. <i>Acta Biomaterialia</i> , 2014, 10, 3421-3430.	4.1	40
97	Perturbed Equilibria and Statistical Energy Redistribution in a Gas-Phase SN2 Reaction. <i>Science</i> , 1997, 276, 1536-1538.	6.0	39
98	Intramolecular Microsolvation of SN2 Transition States. <i>Journal of the American Chemical Society</i> , 1999, 121, 6690-6699.	6.6	39
99	Mechanism Dictates Mechanics: A Molecular Substituent Effect in the Macroscopic Fracture of a Covalent Polymer Network. <i>Journal of the American Chemical Society</i> , 2021, 143, 3714-3718.	6.6	37
100	Microstructure of Copolymers Formed by the Reagentless, Mechanochemical Remodeling of Homopolymers via Pulsed Ultrasound. <i>ACS Macro Letters</i> , 2012, 1, 23-27.	2.3	36
101	The Mechanical Strength of a Mechanical Bond: Sonochemical Polymer Mechanochemistry of Poly(catenane) Copolymers. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 13086-13089.	7.2	36
102	Single-Molecule Observation of a Mechanically Activated <i>Cis</i> -to- <i>Trans</i> Cyclopropane Isomerization. <i>Journal of the American Chemical Society</i> , 2016, 138, 10410-10412.	6.6	34
103	Phase-Shifting Acceleration of Ions in an Ion Cyclotron Resonance Spectrometer: Kinetic Energy Distribution and Reaction Dynamics. <i>Journal of Physical Chemistry A</i> , 1997, 101, 4745-4752.	1.1	32
104	Ring-Closing Metathesis and Ring-Opening Metathesis Polymerization toward Main-Chain Ferrocene-Containing Polymers. <i>Macromolecules</i> , 2018, 51, 9131-9139.	2.2	30
105	Seeing Strain in Soft Materials. <i>Molecules</i> , 2019, 24, 542.	1.7	30
106	Multiple Dynamic Processes Contribute to the Complex Steady Shear Behavior of Cross-Linked Supramolecular Networks of Semidilute Entangled Polymer Solutions. <i>Journal of Physical Chemistry Letters</i> , 2010, 1, 1683-1686.	2.1	29
107	Sonication-induced scission of molecular bottlebrushes: Implications of the hairy architecture. <i>Polymer</i> , 2016, 84, 178-184.	1.8	28
108	Single-Molecule Activation and Quantification of Mechanically Triggered Palladium Carbene Bond Dissociation. <i>Journal of the American Chemical Society</i> , 2021, 143, 1784-1789.	6.6	27

#	ARTICLE	IF	CITATIONS
109	Stereochemical effects on the mechanochemical scission of furanâ€‘maleimide Dielsâ€‘Alder adducts. <i>Chemical Communications</i> , 2019, 55, 12263-12266.	2.2	26
110	Substituent Effects in Mechanochemical Allowed and Forbidden Cyclobutene Ring-Opening Reactions. <i>Journal of the American Chemical Society</i> , 2021, 143, 3846-3855.	6.6	26
111	Understanding the Mechanochemistry of Ladder-Type Cyclobutane Mechanophores by Single Molecule Force Spectroscopy. <i>Journal of the American Chemical Society</i> , 2021, 143, 12328-12334.	6.6	26
112	B-DNA to Zip-DNA: Simulating a DNA Transition to a Novel Structure with Enhanced Charge-Transport Characteristics. <i>Journal of Physical Chemistry A</i> , 2011, 115, 9377-9391.	1.1	25
113	High mechanophore content polyesterâ€‘acrylate ABA block copolymers: Synthesis and sonochemical activation. <i>Journal of Polymer Science Part A</i> , 2012, 50, 3481-3484.	2.5	24
114	Control of stilbene conformation and fluorescence in self-assembled capsules. <i>Beilstein Journal of Organic Chemistry</i> , 2009, 5, 79.	1.3	23
115	Influence of the Extent of Hybridization on the Hydrodynamic Radius of DNA-Functionalized Gold Nanoparticles. <i>Langmuir</i> , 2007, 23, 2015-2020.	1.6	22
116	Disulfideâ€‘centered poly(methyl acrylates): Four different stimuli to cleave a polymer. <i>Journal of Polymer Science Part A</i> , 2018, 56, 1404-1411.	2.5	22
117	Mechanochromic composite elastomers for additive manufacturing and low strain mechanophore activation. <i>Polymer Chemistry</i> , 2019, 10, 5985-5991.	1.9	22
118	Intramolecular Microsolvation of Thermoneutral Gas-Phase SN2 Reactions. <i>Journal of the American Chemical Society</i> , 1996, 118, 6786-6787.	6.6	21
119	Self-Assembly and Properties of Main-Chain Reversible Polymer Brushes. <i>Advanced Materials</i> , 2005, 17, 1749-1753.	11.1	21
120	Combined Constantâ€‘Force and Constantâ€‘Velocity Singleâ€‘Molecule Force Spectroscopy of the Conrotatory Ring Opening Reaction of Benzocyclobutene. <i>ChemPhysChem</i> , 2017, 18, 1486-1489.	1.0	21
121	Molecular Damage Detection in an Elastomer Nanocomposite with a Coumarin Dimer Mechanophore. <i>Macromolecular Rapid Communications</i> , 2021, 42, e2000359.	2.0	21
122	Translational Energy Dependence and Potential Energy Surfaces of Gas Phase SN2 and Additionâ€‘Elimination Reactions. <i>Journal of the American Chemical Society</i> , 1999, 121, 11790-11797.	6.6	20
123	Hierarchical self-assembly of noncovalent amphiphiles Electronic supplementary information (ESI) available: Synthesis, representative 1H and 13C NMR, turbidimetric titrations and QELS data. See http://www.rsc.org/suppdata/cc/b4/b405982d/ . <i>Chemical Communications</i> , 2004, , 1864.	2.2	20
124	Additive manufacturing of mechanochromic polycaprolactone on entry-level systems. <i>Rapid Prototyping Journal</i> , 2015, 21, 520-527.	1.6	20
125	Single-Event Spectroscopy and Unravelling Kinetics of Covalent Domains Based on Cyclobutane Mechanophores. <i>Journal of the American Chemical Society</i> , 2021, 143, 5269-5276.	6.6	20
126	Mechanochemistry of Cationic Cobaltocenium Mechanophore. <i>Journal of the American Chemical Society</i> , 2021, 143, 11871-11878.	6.6	20

#	ARTICLE	IF	CITATIONS
127	Thermodynamics of Pyridine Coordination in 1,4-Phenylene Bridged Bimetallic (Pd, Pt) Complexes Containing Two N,C,N Motifs, 1,4-M2-[C6(CH2NR2)4-2,3,5,6]. <i>Inorganic Chemistry</i> , 2006, 45, 11060-11068.	1.9	19
128	Time and Distance Dependence of Reversible Polymer Bridging Followed by Single-Molecule Force Spectroscopy. <i>Langmuir</i> , 2008, 24, 4738-4742.	1.6	19
129	Enhancing covalent mechanochemistry in bulk polymers using electrospun ABA triblock copolymers. <i>Faraday Discussions</i> , 2014, 170, 337-344.	1.6	19
130	Mechanochemical Regulation of Oxidative Addition to a Palladium(0) Bisphosphine Complex. <i>Journal of the American Chemical Society</i> , 2020, 142, 17714-17720.	6.6	19
131	Writing Without Ink: A Mechanically and Photochemically Responsive PDMS Polymer for Science Outreach. <i>Journal of Chemical Education</i> , 2017, 94, 1752-1755.	1.1	17
132	Strain-Dependent Kinetics in the Cis-to-Trans Isomerization of Azobenzene in Bulk Elastomers. <i>Journal of Physical Chemistry B</i> , 2019, 123, 8492-8498.	1.2	17
133	Onset of Mechanochromic Response in the High Strain Rate Uniaxial Compression of Spiropyran Embedded Silicone Elastomers. <i>Macromolecular Rapid Communications</i> , 2021, 42, e2000449.	2.0	17
134	Force probes in a bottle. <i>Nature Nanotechnology</i> , 2009, 4, 284-285.	15.6	16
135	In situ growth of a thermoresponsive polymer from a genetically engineered elastin-like polypeptide. <i>Polymer Chemistry</i> , 2011, 2, 1561.	1.9	16
136	PolyDAT: A Generic Data Schema for Polymer Characterization. <i>Journal of Chemical Information and Modeling</i> , 2021, 61, 1150-1163.	2.5	16
137	Physical and Materials Applications of Pincer Complexes. <i>Topics in Organometallic Chemistry</i> , 2013, , 319-352.	0.7	14
138	Catch and Release: Orbital Symmetry Guided Reaction Dynamics from a Freed Tension Trapped Transition State. <i>Journal of Organic Chemistry</i> , 2015, 80, 11773-11778.	1.7	14
139	Extended fatigue life of a catalyst free self-healing acrylic bone cement using microencapsulated octyl cyanoacrylate. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2015, 103, 305-312.	1.6	14
140	Mechanochemical Ring-Opening of Allylic Epoxides. <i>Macromolecules</i> , 2019, 52, 6234-6240.	2.2	14
141	Nonstatistical Reactivity in a Vibrationally Excited SN2 Intermediate. <i>Journal of the American Chemical Society</i> , 1998, 120, 12125-12126.	6.6	13
142	A Simple and Practical Spreadsheet-Based Method to Extract Single-Molecule Dissociation Kinetics from Variable Loading-Rate Force Spectroscopy Data. <i>Journal of Physical Chemistry C</i> , 2008, 112, 19163-19167.	1.5	13
143	High Mechanophore Content, Stress-Relieving Copolymers Synthesized via RAFT Polymerization. <i>Macromolecules</i> , 2019, 52, 9032-9038.	2.2	13
144	Photoswitchable Sol-Gel Transitions and Catalysis Mediated by Polymer Networks with Coumarin-Decorated Cu 24 L 24 Metal-Organic Cages as Junctions. <i>Angewandte Chemie</i> , 2020, 132, 2806-2814.	1.6	12

#	ARTICLE	IF	CITATIONS
145	The Mechanical Strength of a Mechanical Bond: Sonochemical Polymer Mechanochemistry of Poly(catenane) Copolymers. <i>Angewandte Chemie</i> , 2016, 128, 13280-13283.	1.6	11
146	Hydrogels muscle their way into new territory. <i>Science</i> , 2019, 363, 451-452.	6.0	11
147	Force-modulated reductive elimination from platinum(<i>ii</i>) diaryl complexes. <i>Chemical Science</i> , 2021, 12, 11130-11137.	3.7	11
148	Stereoselectivity and regioselectivity in Diels-Alder reactions studied by intermolecular perturbation theory. <i>Journal of the Chemical Society, Faraday Transactions</i> , 1994, 90, 1663-1668.	1.7	9
149	Regenerating titanium ventricular assist device surfaces after gold/palladium coating for scanning electron microscopy. <i>Microscopy Research and Technique</i> , 2010, 73, 71-76.	1.2	8
150	Up another rung. <i>Nature Chemistry</i> , 2017, 9, 1154-1155.	6.6	8
151	Discovery of the Xenon-Protein Interactome Using Large-Scale Measurements of Protein Folding and Stability. <i>Journal of the American Chemical Society</i> , 2022, 144, 3925-3938.	6.6	7
152	Mechanical generation of isocyanate by mechanically induced retro [2 + 2] cycloaddition of a 1,2-diazetidione mechanophore. <i>Organic Chemistry Frontiers</i> , 2019, 6, 1052-1057.	2.3	6
153	Cover Picture: <i>Angew. Chem. Int. Ed.</i> 9/2002. <i>Angewandte Chemie - International Edition</i> , 2002, 41, 1447-1447.	7.2	5
154	Main-chain dynamics in metallo-supramolecular polymers: from solution to elastomeric fibres. <i>Supramolecular Chemistry</i> , 2010, 22, 697-703.	1.5	5
155	Properties of DNA. , 2014, , 1125-1157.		5
156	Unimolecular dynamics in bimolecular ion-molecule reactions. <i>Zeitschrift Fur Elektrotechnik Und Elektrochemie</i> , 1997, 101, 510-515.	0.9	4
157	Titelbild: <i>Angew. Chem.</i> 9/2002. <i>Angewandte Chemie</i> , 2002, 114, 1513-1513.	1.6	4
158	Cool as a Cucumber. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 8776-8777.	7.2	4
159	Single-molecule force spectroscopy of DNA-based reversible polymer bridges: Surface robustness and homogeneity. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2009, 346, 20-27.	2.3	3
160	Oxidative regulation of the mechanical strength of a C-S bond. <i>Chemical Science</i> , 2020, 11, 10444-10448.	3.7	3
161	Pulling Outward but Reacting Inward: Mechanically Induced Symmetry-Allowed Reactions of cis- and trans-Diester-Substituted Dichlorocyclopropanes. <i>Synlett</i> , 2022, 33, 885-889.	1.0	3
162	A Single Reaction Thread Ties Multiple Core Concepts in an Introductory Chemistry Course. <i>Journal of Chemical Education</i> , 2018, 95, 939-946.	1.1	2

#	ARTICLE	IF	CITATIONS
163	Supramolecular Control of Mechanical Properties in Single Molecules, Interfaces, and Macroscopic Materials. , 0, , 37-62.		0
164	Breaking Down the Supramolecular Ensemble: Single-Molecule Studies of the Concentration Dependence of Main-Chain Supramolecular Polymer Molecular Weight Distributions on Surfaces. Australian Journal of Chemistry, 2010, 63, 624.	0.5	0
165	Injectable and Photocrosslinkable Laminin Functionalized Biomaterials for Intervertebral Disc Regeneration. , 2012, , .		0
166	Solvent-Dependent Light-Induced Structures in <i>Gem</i> -Dichlorocyclopropanated Polybutadiene Solutions. Journal of Physical Chemistry B, 2018, 122, 6995-7001.	1.2	0
167	Innentitelbild: Photoswitchable Sol-Gel Transitions and Catalysis Mediated by Polymer Networks with Coumarin-Decorated Cu ₂₄ L ₂₄ Metal-Organic Cages as Junctions (Angew.) Tj EI@q1 1 0.084314		0
168	DNA Structures and Their Applications in Nanotechnology. , 2005, , .		0