

Hatice Mutlu

List of Publications by Year in descending order

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114
papers

9,227
citations

117571

34
h-index

39638

94
g-index

127
all docs

127
docs citations

127
times ranked

10129
citing authors

#	ARTICLE	IF	CITATIONS
1	The use of elemental sulfur as an alternative feedstock for polymeric materials. <i>Nature Chemistry</i> , 2013, 5, 518-524.	6.6	1,046
2	Temperature- and light-responsive smart polymer materials. <i>Chemical Society Reviews</i> , 2013, 42, 7468-7483.	18.7	894
3	Castor oil as a renewable resource for the chemical industry. <i>European Journal of Lipid Science and Technology</i> , 2010, 112, 10-30.	1.0	587
4	<i>o</i> -Nitrobenzyl Alcohol Derivatives: Opportunities in Polymer and Materials Science. <i>Macromolecules</i> , 2012, 45, 1723-1736.	2.2	480
5	Multi-stimuli responsive polymers – the all-in-one talents. <i>Polymer Chemistry</i> , 2014, 5, 25-36.	1.9	453
6	Stimuli responsive materials. <i>Chemical Society Reviews</i> , 2013, 42, 7055.	18.7	404
7	Synthesis of pentafluorophenyl(meth)acrylate polymers: New precursor polymers for the synthesis of multifunctional materials. <i>European Polymer Journal</i> , 2005, 41, 1569-1575.	2.6	368
8	Activated Ester Containing Polymers: Opportunities and Challenges for the Design of Functional Macromolecules. <i>Chemical Reviews</i> , 2016, 116, 1434-1495.	23.0	340
9	Sustainable routes to polyurethane precursors. <i>Green Chemistry</i> , 2013, 15, 1431.	4.6	332
10	Standing on the shoulders of Hermann Staudinger: Post-polymerization modification from past to present. <i>Journal of Polymer Science Part A</i> , 2013, 51, 1-28.	2.5	331
11	Synthesis of well-defined polymeric activated esters. <i>Journal of Polymer Science Part A</i> , 2008, 46, 6677-6687.	2.5	269
12	Acyclic dienemetathesis: a versatile tool for the construction of defined polymer architectures. <i>Chemical Society Reviews</i> , 2011, 40, 1404-1445.	18.7	262
13	CO ₂ -Responsive Polymers. <i>Macromolecular Rapid Communications</i> , 2013, 34, 1118-1133.	2.0	234
14	Sulfur Chemistry in Polymer and Materials Science. <i>Macromolecular Rapid Communications</i> , 2019, 40, e1800650.	2.0	204
15	Trends in polymeric shape memory hydrogels and hydrogel actuators. <i>Polymer Chemistry</i> , 2019, 10, 1036-1055.	1.9	172
16	CO ₂ -Responsive polymer materials. <i>Polymer Chemistry</i> , 2017, 8, 12-23.	1.9	160
17	Reading Polymers: Sequencing of Natural and Synthetic Macromolecules. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 13010-13019.	7.2	152
18	Inverse vulcanization of elemental sulfur with 1,4-diphenylbutadiyne for cathode materials in Li-S batteries. <i>RSC Advances</i> , 2015, 5, 24718-24722.	1.7	149

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19	Toward Self-Healing Hydrogels Using One-Pot Thiol-Ene Click and Borax-Diol Chemistry. ACS Macro Letters, 2015, 4, 673-678.	2.3	125
20	Sulfur-Based Polymer Composites from Vegetable Oils and Elemental Sulfur: A Sustainable Active Material for Li-S Batteries. Macromolecular Chemistry and Physics, 2017, 218, 1600303.	1.1	116
21	Unsaturated PA X,20 from Renewable Resources via Metathesis and Catalytic Amidation. Macromolecular Chemistry and Physics, 2009, 210, 1019-1025.	1.1	108
22	TBD catalysis with dimethyl carbonate: a fruitful and sustainable alliance. Green Chemistry, 2012, 14, 1728.	4.6	95
23	Three-Component Reactions for Post-Polymerization Modifications. ACS Macro Letters, 2013, 2, 419-422.	2.3	82
24	Rapid Mercury(II) Removal by Electrospun Sulfur Copolymers. Polymers, 2016, 8, 266.	2.0	82
25	A sulfur-eugenol allyl ether copolymer: a material synthesized via inverse vulcanization from renewable resources and its application in Li-S batteries. Materials Chemistry Frontiers, 2017, 1, 1818-1822.	3.2	80
26	Multifaceted Synthetic Route to Functional Polyacrylates by Transesterification of Poly(pentafluorophenyl acrylates). Macromolecules, 2015, 48, 8695-8707.	2.2	68
27	Controlled folding of polystyrene single chains: design of asymmetric covalent bridges. Polymer Chemistry, 2012, 3, 1796-1802.	1.9	62
28	Self-metathesis of fatty acid methyl esters: full conversion by choosing the appropriate plant oil. RSC Advances, 2013, 3, 4927.	1.7	62
29	Untapped potential for debonding on demand: the wonderful world of azo-compounds. Materials Horizons, 2018, 5, 162-183.	6.4	54
30	Controlled Positioning of Activated Ester Moieties on Well-Defined Linear Polymer Chains. Macromolecular Rapid Communications, 2012, 33, 54-60.	2.0	50
31	Degradable fluorescent single-chain nanoparticles based on metathesis polymers. Chemical Communications, 2017, 53, 775-778.	2.2	49
32	Photo- and Metallo-responsive <i>N</i> -Alkyl β -Bisimines as Orthogonally Addressable Main-Chain Functional Groups in Metathesis Polymers. Journal of the American Chemical Society, 2016, 138, 1142-1145.	6.6	41
33	Green chain-shattering polymers based on a self-immolative azobenzene motif. Polymer Chemistry, 2016, 7, 2272-2279.	1.9	37
34	Precision PEGylated Polymers Obtained by Sequence-Controlled Copolymerization and Postpolymerization Modification. Angewandte Chemie - International Edition, 2014, 53, 9231-9235.	7.2	36
35	A Subtractive Photoresist Platform for Micro- and Macroscopic 3D Printed Structures. Advanced Functional Materials, 2018, 28, 1801405.	7.8	33
36	Sequential post-polymerization modification reactions of poly(pentafluorophenyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf,50 62 Td,(4-vinylbe	1.9	32

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37	Dual-Gated Supramolecular Star Polymers in Aqueous Solution. <i>Macromolecules</i> , 2017, 50, 2375-2386.	2.2	31
38	Ring-opening metathesis polymerization of fatty acid derived monomers. <i>Journal of Polymer Science Part A</i> , 2010, 48, 5899-5906.	2.5	30
39	On the Polymerization Behavior of Telomers: Metathesis versus Thiol-Ene Chemistry. <i>Macromolecules</i> , 2012, 45, 1866-1878.	2.2	30
40	Contemporary Photoligation Chemistry: The Visible Light Challenge. <i>Chemistry - A European Journal</i> , 2019, 25, 3700-3709.	1.7	30
41	Prevent or Cure? The Unprecedented Need for Self-Reporting Materials. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 17290-17313.	7.2	30
42	Copolymers featuring pentafluorophenyl ester and photolabile amine units: synthesis and application as reactive photopatterns. <i>Polymer Chemistry</i> , 2013, 4, 891.	1.9	29
43	Advanced AAO Templating of Nanostructured Stimuli-Responsive Polymers: Hype or Hope?. <i>Advanced Functional Materials</i> , 2020, 30, 1902959.	7.8	29
44	CO ₂ -Triggered UCST transition of amphiphilic triblock copolymers and their self-assemblies. <i>Polymer Chemistry</i> , 2017, 8, 2619-2629.	1.9	28
45	Facile Fabrication of CO ₂ -Responsive Nanofibers from Photo-Cross-Linked Poly(pentafluorophenyl acrylate) Nanofibers. <i>ACS Macro Letters</i> , 2018, 7, 431-436.	2.3	28
46	Post-polymerization modification of reactive polymers derived from vinylcyclopropane: 1. synthesis and thermo-responsive behaviour. <i>Polymer Chemistry</i> , 2013, 4, 2724.	1.9	27
47	Fabrication of Chemically Tunable, Hierarchically Branched Polymeric Nanostructures by Multi-branched Anodic Aluminum Oxide Templates. <i>Langmuir</i> , 2016, 32, 6437-6444.	1.6	27
48	CO ₂ -Responsive graft copolymers: synthesis and characterization. <i>Polymer Chemistry</i> , 2017, 8, 1206-1216.	1.9	27
49	Dynamic covalent single chain nanoparticles based on hetero Diels-Alder chemistry. <i>Chemical Communications</i> , 2017, 53, 157-160.	2.2	27
50	Self-reporting and refoldable profluorescent single-chain nanoparticles. <i>Chemical Science</i> , 2018, 9, 4696-4702.	3.7	27
51	“Breathing” CO ₂ , O ₂ , and Light-Responsive Vesicles from a Triblock Copolymer for Rate-Tunable Controlled Release. <i>Macromolecular Rapid Communications</i> , 2018, 39, 1700313.	2.0	27
52	Polybutadiene Functionalization via an Efficient Avenue. <i>ACS Macro Letters</i> , 2016, 5, 1146-1151.	2.3	26
53	Tailoring Properties of Carbon Nanotube Dispersions and Nanocomposites Using Temperature-Responsive Copolymers of Pyrene-Modified Poly(N-cyclopropylacrylamide). <i>Macromolecules</i> , 2010, 43, 9447-9453.	2.2	23
54	On the synthesis of sequence-controlled poly(vinyl benzyl amine-co-N-substituted maleimides) copolymers. <i>European Polymer Journal</i> , 2015, 62, 338-346.	2.6	22

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55	Self-reporting visible light-induced polymer chain collapse. <i>Polymer Chemistry</i> , 2019, 10, 4513-4518.	1.9	22
56	Dual-Gated Chain Shattering Based on Light Responsive Benzophenones and Thermally Responsive Diels-Alder Linkages. <i>Macromolecules</i> , 2017, 50, 5385-5391.	2.2	21
57	The para-fluoro-thiol reaction as a powerful tool for precision network synthesis. <i>Polymer Chemistry</i> , 2017, 8, 3778-3782.	1.9	21
58	About the activity and selectivity of less well-known metathesis catalysts during ADMET polymerizations. <i>Beilstein Journal of Organic Chemistry</i> , 2010, 6, 1149-1158.	1.3	20
59	Acyclic Triene Metathesis Polymerization of <i>Plukenetia Conophora</i> Oil: Branched Polymers by Direct Polymerization of Renewable Resources. <i>Macromolecular Chemistry and Physics</i> , 2012, 213, 87-96.	1.1	20
60	Cross-metathesis versus palladium-catalyzed C-H activation: Acetoxy ester functionalization of unsaturated fatty acid methyl esters. <i>European Journal of Lipid Science and Technology</i> , 2013, 115, 76-85.	1.0	20
61	Post-polymerization modification of reactive polymers derived from vinylcyclopropane: a poly(vinylcyclopropane) derivative with physical gelation and UCST behaviour in ethanol-water mixtures. <i>Polymer Chemistry</i> , 2014, 5, 5823-5828.	1.9	20
62	Thermo- and CO ₂ -Responsive Linear Polymers and Hydrogels as CO ₂ Capturing Materials. <i>Science of Advanced Materials</i> , 2015, 7, 948-955.	0.1	20
63	Stepwise Light-Induced Dual Compaction of Single-Chain Nanoparticles. <i>Macromolecular Rapid Communications</i> , 2017, 38, 1700264.	2.0	18
64	Light-Induced Step-Growth Polymerization of AB-Type Photo-Monomers at Ambient Temperature. <i>ACS Macro Letters</i> , 2018, 7, 201-207.	2.3	18
65	The unrevealed potential of elemental sulfur for the synthesis of high sulfur content bio-based aliphatic polyesters. <i>Polymer Chemistry</i> , 2020, 11, 241-248.	1.9	18
66	Fabrication of color changeable CO ₂ sensitive nanofibers. <i>Polymer Chemistry</i> , 2017, 8, 7446-7451.	1.9	17
67	Making the Best of Polymers with Sulfur-Nitrogen Bonds: From Sources to Innovative Materials. <i>Macromolecular Rapid Communications</i> , 2020, 41, e2000181.	2.0	17
68	Dynamic covalent polymer networks via combined nitroxide exchange reaction and nitroxide mediated polymerization. <i>Polymer Chemistry</i> , 2020, 11, 2502-2510.	1.9	17
69	The toolbox of porous anodic aluminum oxide-based nanocomposites: from preparation to application. <i>Colloid and Polymer Science</i> , 2021, 299, 325-341.	1.0	17
70	4-Vinylbenzenesulfonic acid adduct of epoxidized soybean oil: Synthesis, free radical and ADMET polymerizations. <i>European Polymer Journal</i> , 2011, 47, 1467-1476.	2.6	16
71	Two-Orthogonal Photochemistry on a Radical Photoinitiating System. <i>Macromolecular Rapid Communications</i> , 2017, 38, 1600598.	2.0	16
72	UV-triggered CO ₂ -responsive behavior of nanofibers and their controlled drug release properties. <i>Journal of Polymer Science Part A</i> , 2019, 57, 1580-1586.	2.5	16

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73	Post-polymerization modification of Poly(vinylcyclopropanes): A potential route to periodic copolymers. <i>European Polymer Journal</i> , 2020, 122, 109319.	2.6	16
74	Post-polymerization modification of polymeric active esters towards TEMPO containing polymers: A systematic study. <i>European Polymer Journal</i> , 2020, 130, 109660.	2.6	16
75	Spin fluorescence silencing enables an efficient thermally driven self-reporting polymer release system. <i>Polymer Chemistry</i> , 2017, 8, 6199-6203.	1.9	15
76	A Guanidine-Based Superbase as Efficient Chemiluminescence Booster. <i>Scientific Reports</i> , 2019, 9, 14519.	1.6	15
77	Getting the Terms Right: Green, Sustainable, or Circular Chemistry?. <i>Macromolecular Chemistry and Physics</i> , 2022, 223, .	1.1	15
78	A Bioinspired Hierarchical Underwater Superoleophobic Surface with Reversible pH Response. <i>Advanced Materials Interfaces</i> , 2020, 7, 2000101.	1.9	14
79	Postpolymerization modification of reactive polymers derived from vinylcyclopropane. III. Polymer sequential functionalization using a combination of amines with alkoxyamines, hydrazides, isocyanates, or acyl halides. <i>Journal of Polymer Science Part A</i> , 2014, 52, 2841-2849.	2.5	13
80	A synthetic approach toward a pH and sugar-responsive diblock copolymer <i>via</i> post-polymerization modification. <i>Polymer Chemistry</i> , 2018, 9, 3355-3358.	1.9	13
81	Synergy of Macrocycles and Macromolecular Topologies: An Efficient [3+4]Triazolophane-Based Synthesis of Cage-Shaped Polymers. <i>ACS Macro Letters</i> , 2020, 9, 700-705.	2.3	13
82	Degradable Redox-Responsive Polyolefins. <i>Macromolecules</i> , 2021, 54, 1775-1782.	2.2	13
83	Interrupted CuAAC Ligation: An Efficient Approach to Fluorescence Labeled Three-Armed Mikto Star Polymers. <i>Macromolecules</i> , 2018, 51, 2682-2689.	2.2	12
84	A CO ₂ -gated anodic aluminum oxide based nanocomposite membrane for de-emulsification. <i>Nanoscale</i> , 2020, 12, 21316-21324.	2.8	12
85	Conductive hydrogel composites with autonomous self-healing properties. <i>Soft Matter</i> , 2020, 16, 10969-10976.	1.2	11
86	Reactive nanorods based on activated esterpolymers: a versatile template-assisted approach for the fabrication of functional nanorods. <i>Polymer Chemistry</i> , 2011, 2, 645-650.	1.9	10
87	Soft Matter Technology at KIT: Chemical Perspective from Nanoarchitectures to Microstructures. <i>Advanced Materials</i> , 2019, 31, e1806334.	11.1	10
88	Oxygen-switchable thermo-responsive polymers with unprecedented UCST in water. <i>European Polymer Journal</i> , 2021, 142, 110156.	2.6	10
89	Synthesis and characterization of polymers from soybean oil and <i>p</i> -nitrosobenzene. <i>Journal of Applied Polymer Science</i> , 2009, 113, 1925-1934.	1.3	9
90	Untapped toolbox of luminol based polymers. <i>Polymer Chemistry</i> , 2021, 12, 1732-1748.	1.9	8

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91	Structural design of pyrene-functionalized TEMPO-containing polymers for enhanced electrochemical storage performance. <i>Polymer Chemistry</i> , 2021, 12, 2643-2650.	1.9	8
92	The power of architecture – cage-shaped PEO and its application as a polymer electrolyte. <i>Polymer Chemistry</i> , 2021, 12, 4326-4331.	1.9	8
93	Dual-faced borax mediated synthesis of self-healable hydrogels merging dynamic covalent bonding and micellization. <i>Polymer Chemistry</i> , 2021, 12, 361-369.	1.9	7
94	Fully independent photochemical reactivity in one molecule. <i>Chemical Communications</i> , 2019, 55, 9877-9880.	2.2	6
95	Chemiluminescent self-reporting supramolecular transformations on macromolecular scaffolds. <i>Polymer Chemistry</i> , 2020, 11, 4213-4220.	1.9	6
96	Modification of polybutadiene with trifluoromethyl and clickable azide groups in one shot. <i>Polymer Chemistry</i> , 2021, 12, 5589-5597.	1.9	6
97	Intercalating Electron Dyes for TEM Visualization of DNA at the Single-Molecule Level. <i>ChemBioChem</i> , 2019, 20, 822-830.	1.3	5
98	Acyclic Diene Metathesis (ADMET) Polymerization of 2,2,6,6-Tetramethylpiperidine-1-ylsulfanyl (TEMPS) Dimers. <i>Macromolecular Rapid Communications</i> , 2021, 42, e2100118.	2.0	5
99	Synthesis and Post-Polymerization Modification of Poly(N-(4-Vinylphenyl)Sulfonamide)s. <i>Macromolecular Rapid Communications</i> , 2021, 42, 2100063.	2.0	4
100	Synthesis and Post-Polymerization Modification of Defined Functional Poly(vinyl ether)s. <i>Macromolecular Rapid Communications</i> , 2021, 42, 2100133.	2.0	4
101	Elemental Sulfur Mediated Novel Multicomponent Redox Polycondensation for the Synthesis of Alternating Copolymers Based on 2,4-Thiophene/Arene Repeating Units. <i>Macromolecular Rapid Communications</i> , 2021, 42, e2000695.	2.0	4
102	Light induced polyethylene ligation. <i>Polymer Chemistry</i> , 2018, 9, 3633-3637.	1.9	3
103	The Vibrant Interplay of Light and Self-Reporting Macromolecular Architectures. <i>Macromolecular Chemistry and Physics</i> , 2021, 222, 2100057.	1.1	3
104	Synthesis and post-polymerization modification of poly(propargyl 2-ylidene-acetate). <i>European Polymer Journal</i> , 2021, 156, 110564.	2.6	3
105	Cage-Shaped Polymers Synthesis: A Comprehensive State-of-the-Art. <i>Macromolecular Rapid Communications</i> , 2022, 43, e2100760.	2.0	3
106	Pyrene-Tagged Chloro Oximes as Ambient-Light-Accelerated Ligation Agents. <i>ChemPhotoChem</i> , 2019, 3, 66-70.	1.5	2
107	Vorbeugen oder Heilen – die beispiellose Notwendigkeit von selbstberichtenden Materialien. <i>Angewandte Chemie</i> , 2021, 133, 17430-17454.	1.6	1
108	Passerini Multicomponent Reactions Enabling Self-Reporting Photosensitive Tetrazole Polymers. <i>ACS Macro Letters</i> , 2021, 10, 1159-1166.	2.3	1

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109	Synthesis and Characterization of Novel Isosorbide-Based Polyester Derivatives Decorated with <i>o</i> -Acyloxy Amides. <i>Macromolecular Chemistry and Physics</i> , 2022, 223, .	1.1	1
110	Frontispiece: Contemporary Photoligation Chemistry: The Visible Light Challenge. <i>Chemistry - A European Journal</i> , 2019, 25, .	1.7	0
111	Chemical design and synthesis of macromolecular profluorescent nitroxide systems as self-reporting probes. <i>Polymer Chemistry</i> , 2022, 13, 1648-1657.	1.9	0
112	Introduction to the themed collection on synthetic methodologies for complex macromolecular structures in honour of Prof. Yusuf Yagci's 70 th birthday. <i>Polymer Chemistry</i> , 2022, 13, 1456-1457.	1.9	0
113	Poly(pentafluorobenzyl 2-ylideneacetate): Polymerization and Postpolymerization Modification. <i>Macromolecular Chemistry and Physics</i> , 0, , 2100455.	1.1	0
114	Teaching an Old Dog New Tricks: Sustainable Polymers. <i>Macromolecular Chemistry and Physics</i> , 2022, 223, .	1.1	0