Charles E Diesendruck

List of Publications by Year
in descending order

76 papers	4,340 citations	136740 32 h-index	106150 65 g-index
88 all docs	88 docs citations	88 times ranked	4186 citing authors

#	Article	IF	Citations
1	Biomimetic Selfâ€Healing. Angewandte Chemie - International Edition, 2015, 54, 10428-10447.	7.2	370
2	Effect of Water on the Stability of Quaternary Ammonium Groups for Anion Exchange Membrane Fuel Cell Applications. Chemistry of Materials, 2017, 29, 4425-4431.	3.2	282
3	Poly(bis-arylimidazoliums) possessing high hydroxide ion exchange capacity and high alkaline stability. Nature Communications, 2019, 10, 2306.	5.8	239
4	Water in N-Heterocyclic Carbene-Assisted Catalysis. Chemical Reviews, 2015, 115, 4607-4692.	23.0	216
5	Continuous Selfâ€Healing Life Cycle in Vascularized Structural Composites. Advanced Materials, 2014, 26, 4302-4308.	11.1	209
6	Mechanically triggered heterolytic unzipping of a low-ceiling-temperature polymer. Nature Chemistry, 2014, 6, 623-628.	6.6	198
7	Proton-Coupled Mechanochemical Transduction: A Mechanogenerated Acid. Journal of the American Chemical Society, 2012, 134, 12446-12449.	6.6	194
8	The critical relation between chemical stability of cations and water in anion exchange membrane fuel cells environment. Journal of Power Sources, 2018, 375, 351-360.	4.0	179
9	A Thermally Switchable Latent Ruthenium Olefin Metathesis Catalyst. Organometallics, 2008, 27, 811-813.	1.1	148
10	Water â€“ A key parameter in the stability of anion exchange membrane fuel cells. Current Opinion in Electrochemistry, 2018, 9, 173-178.	2.5	146
11	End Group Characterization of Poly(phthalaldehyde): Surprising Discovery of a Reversible, Cationic Macrocyclization Mechanism. Journal of the American Chemical Society, 2013, 135, 12755-12761.	6.6	117
12	Photoactivation of Ruthenium Olefin Metathesis Initiators. Organometallics, 2009, 28, 4652-4655.	1.1	111
13	Chemical stability of poly(phenylene oxide)-based ionomers in an anion exchange-membrane fuel cell environment. Journal of Materials Chemistry A, 2018, 6, 22234-22239.	5.2	105
14	Predicting the Cisâ^'Trans Dichloro Configuration of Group 15â^'16 Chelated Ruthenium Olefin Metathesis Complexes: A DFT and Experimental Study. Inorganic Chemistry, 2009, 48, 10819-10825.	1.9	98
15	Water as a Promoter and Catalyst for Dioxygen Electrochemistry in Aqueous and Organic Media. ACS Catalysis, 2015, 5, 6600-6607.	5.5	98
16	Solvent Swelling Activation of a Mechanophore in a Polymer Network. Macromolecules, 2014, 47, 2690-2694.	2.2	96
17	The Versatile Alkylidene Moiety in Ruthenium Olefin Metathesis Catalysts. European Journal of Inorganic Chemistry, 2009, 2009, 4185-4203.	1.0	85
18	Polycyclooctadiene Complexes of Rhodium(I): Direct Access to Organometallic Nanoparticles. Angewandte Chemie - International Edition, 2013, 52, 5767-5770.	7.2	81

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19	Widening the Latency Gap in Chelated Ruthenium Olefin Metathesis Catalysts. Organometallics, 2011, 30, 3430-3437.	1.1	71
20	A latent sâ€chelated ruthenium benzylidene initiator for ringâ€opening metathesis polymerization. Journal of Polymer Science Part A, 2009, 47, 4209-4213.	2.5	63
21	Ligand Isomerization in Sulfur-Chelated Ruthenium Benzylidenes. Organometallics, 2011, 30, 1607-1615.	1.1	61
22	Mechanical Unfolding and Thermal Refolding of Single-Chain Nanoparticles Using Ligandâ€“Metal Bonds. Journal of the American Chemical Society, 2019, 141, 7256-7260.	6.6	61
23	Enabling Room-Temperature Mechanochromic Activation in a Glassy Polymer: Synthesis and Characterization of Spiropyran Polycarbonate. Journal of the American Chemical Society, 2019, 141, 10060-10067.	6.6	58
24	Depolymerizable, adaptive supramolecular polymer nanoparticles and networks. Polymer Chemistry, 2014, 5, 3788-3794.	1.9	56
25	N-Arylation of Tertiary Amines under Mild Conditions. Organic Letters, 2016, 18, 980-983.	2.4	42
26	Latent and Switchable Olefin Metathesis Catalysts. Macromolecular Symposia, 2010, 293, 33-38.	0.4	41
27	Homodinuclear Ruthenium Catalysts for Dimer Ringâ€Closing Metathesis. Angewandte Chemie - International Edition, 2008, 47, 6422-6425.	7.2	40
28	Intramolecular Crossâ€Linking: Addressing Mechanochemistry with a Bioinspired Approach. Angewandte Chemie - International Edition, 2017, 56, 6431-6434.	7.2	40
29	Highly Stretchable Polymers: Mechanical Properties Improvement by Balancing Intraâ€and Intermolecular Interactions. Advanced Functional Materials, 2020, 30, 1901806.	7.8	37
30	BF_3-promoted electrochemical properties of quinoxaline in propylene carbonate. RSC Advances, 2015, 5, 18822-18831.	1.7	36
31	Polyphthalaldehyde: Synthesis, Derivatives, and Applications. Macromolecular Rapid Communications, 2018, 39, 1700519.	2.0	36
32	Increasing the Alkaline Stability of N,N-Diaryl Carbazolium Salts Using Substituent Electronic Effects. ACS Applied Materials & Interfaces, 2020, 12, 49617-49625.	4.0	35
33	Changes of Anion Exchange Membrane Properties During Chemical Degradation. ACS Applied Polymer Materials, 2020, 2, 360-367.	2.0	35
34	Dynamic Covalent Macrocyclic Poly(phthalaldehyde)s: Scrambling Cyclic Homopolymer Mixtures Produces Multi-Block and Random Cyclic Copolymers. Macromolecules, 2013, 46, 8121-8128.	2.2	34
35	Long-lasting, monovalent-selective capacitive deionization electrodes. Npj Clean Water, 2021, 4, .	3.1	30
36	The mechanochemical production of phenyl cations through heterolytic bond scission. Faraday Discussions, 2014, 170, 385-394.	1.6	29

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37	The Effect of Intrachain Cross-Linking on the Thermomechanical Behavior of Bulk Polymers Assembled Solely from Single Chain Polymer Nanoparticles. Macromolecules, 2018, 51, 7160-7168.	2.2	28
38	Following Homolytic Mechanochemical Kinetics with a Pyrenyl Nitrone Spin Trap. ACS Macro Letters, 2017, 6, 42-45.	2.3	27
39	Superoxide (Electro)Chemistry on Well-Defined Surfaces in Organic Environments. Journal of Physical Chemistry C, 2016, 120, 15909-15914.	1.5	25
40	The effect of intramolecular cross links on the mechanochemical fragmentation of polymers in solution. Chemical Communications, 2017, 53, 10132-10135.	2.2	25
41	Bridging experiments and theory: isolating the effects of metalâ€“ligand interactions on viscoelasticity of reversible polymer networks. Soft Matter, 2020, 16, 8591-8601.	1.2	24
42	Effect of disulphide loop length on mechanochemical structural stability of macromolecules. Chemical Communications, 2020, 56, 2143-2146.	2.2	21
43	Divergent Macrocyclization Mechanisms in the Cationic Initiated Polymerization of Ethyl Glyoxylate. Macromolecules, 2014, 47, 3603-3607.	2.2	20
44	Alkyne mechanochemistry: putative activation by transoidal bending. Chemical Communications, 2014, 50, 13235-13238.	2.2	20
45	Accelerated Mechanochemistry in Helical Polymers. Angewandte Chemie - International Edition, 2022, 61, .	7.2	20
46	Flow Photochemistry for Singleâ€Chain Polymer Nanoparticle Synthesis. Angewandte Chemie - International Edition, 2021, 60, 2042-2046.	7.2	18
47	Mechanical and Thermomechanical Characterization of Glassy Thermoplastics with Intrachain Cross-Links. Macromolecules, 2017, 50, 6415-6420.	2.2	17
48	Strategies for the Synthesis of N-Arylammonium Salts. Synthesis, 2017, 49, 3535-3545.	1.2	17
49	The Effect of Intramolecular Crossâ€Linking on Polymer Interactions in Solution. Macromolecular Rapid Communications, 2018, 39, e1800407.	2.0	17
50	Effect of intramolecular crosslinker properties on the mechanochemical fragmentation of covalently folded polymers. Journal of Polymer Science, 2020, 58, 692-703.	2.0	17
51	A surprising relation between operating temperature and stability of anion exchange membrane fuel cells. Journal of Power Sources Advances, 2021, 11, 100066.	2.6	17
52	Stability and activity of cis-dichloro ruthenium olefin metathesis precatalysts bearing chelating sulfur alkylidenes. Journal of Organometallic Chemistry, 2014, 769, 24-28.	0.8	16
53	Single chain polymer nanoparticles as shear-resilient viscosity modifiers for lubricating oils. Reactive and Functional Polymers, 2018, 131, 237-242.	2.0	16
54	An Effective Synthesis of N,N-Diphenyl Carbazolium Salts. Synlett, 2018, 29, 1314-1318.	1.0	15

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55	Tailoring single chain polymer nanoparticle thermo-mechanical behavior by cross-link density. Soft Matter, 2017, 13, 2808-2816.	1.2	14
56	Intramolecular Crossâ€Linking: Addressing Mechanochemistry with a Bioinspired Approach. Angewandte Chemie, 2017, 129, 6531-6534.	1.6	14
57	The Reaction Mechanism Between Tetraarylammonium Salts and Hydroxide. European Journal of Organic Chemistry, 2020, 2020, 3161-3168.	1.2	14
58	Isoindolinium Groups as Stable Anion Conductors for Anion-Exchange Membrane Fuel Cells and Electrolyzers. ACS Materials Au, 2022, 2, 367-373.	2.6	14
59	Advantages and limitations of diisocyanates in intramolecular collapse. Polymer Chemistry, 2017, 8, 3712-3720.	1.9	12
60	Ligand Valency Effects on the Alkaline Stability of Metallopolymer Anionâ€Exchange Membranes. Macromolecular Rapid Communications, 2021, 42, e2100238.	2.0	12
61	The working mechanisms of low molecular weight polynaphthalene sulfonate superplasticizers. Construction and Building Materials, 2020, 240, 117891.	3.2	10
62	Alkaline Stability of Low Oxophilicity Metallopolymer Anionâ€Exchange Membranes. Chemistry - A European Journal, 2022, 28, .	1.7	10
63	Flex-activated CO mechanochemical production for mechanical damage detection. Polymer Chemistry, 2022, 13, 3986-3990.	1.9	8
64	Oligomerisation reactions of beta substituted thiols in water. RSC Advances, 2013, 3, 1735-1738.	1.7	7
65	Olefination of Nâ€Sulfinylimines under Mild Conditions. European Journal of Organic Chemistry, 2017, 2017, 1184-1190.	1.2	6
66	Accelerated Mechanochemistry in Helical Polymers. Angewandte Chemie, 2022, 134, .	1.6	6
67	Templateâ€Free Formation of Regular Macroporosity in Carbon Materials Made from a Folded Polymer Precursor. Small, 2021, 17, 2100712.	5.2	4
68	Emerging investigator series: a comparison of strong and weak-acid functionalized carbon electrodes in capacitive deionization. Environmental Science: Water Research and Technology, 2022, 8, 949-956.	1.2	4
69	N-Heterocyclic Carbene Ligandsâ€™ Electronic Effects on Metallopolymer Anion Exchange Membranes. Organometallics, 2022, 41, 1419-1425.	1.1	4
70	A 50-Year Long Lesson. Israel Journal of Chemistry, 2015, 55, 1154-1155.	1.0	3
71	100 Years of Macromolecular Science. Israel Journal of Chemistry, 2020, 60, 6-8.	1.0	3
72	Chemical Communication between Organometallic Singleâ€Chain Polymer Nanoparticles. Chemistry - A European Journal, 2020, 26, 15835-15838.	1.7	2

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73	Flow Photochemistry for Singleâ€€Chain Polymer Nanoparticle Synthesis. Angewandte Chemie, 2021, 133, 2070-2074.	1.6	2
74	Communicationâ€”Electropolymerization of Anion-Conducting Polymer Films. Journal of the Electrochemical Society, 0, , .	1.3	1
75	Crystal structure of 1,3-bis(2,3-dimethylquinoxalin-6-yl)benzene. Acta Crystallographica Section E: Crystallographic Communications, 2015, 71, 1429-1432.	0.2	0
76	RÃ¼cktitelbild: Accelerated Mechanochemistry in Helical Polymers (Angew. Chem. 14/2022). Angewandte Chemie, 2022, 134, .	1.6	0