Charles L Liotta

List of Publications by Year
in descending order

92 papers	3,972 citations	32 h-index (136950)	62 g-index (118850)
95 all docs	95 docs citations	95 times ranked	3832 citing authors

#	Article	IF	Citations
1	Water-Based Dynamic Depsipeptide Chemistry: Building Block Recycling and Oligomer Distribution Control Using Hydrationâ€“Dehydration Cycles. Jacs Au, 2022, 2, 1395-1404.	7.9	6
2	Separations of Carbohydrates with Noncovalent Shift Reagents by Frequency-Modulated Ion Mobility-Orbitrap Mass Spectrometry. Journal of the American Society for Mass Spectrometry, 2021, 32, 2472-2480.	2.8	7
3	Reaction of Diphenyldiazomethane with Benzoic Acids in Batch and Continuous Flow. Journal of Chemical Education, 2021, 98, 469-477.	2.3	2
4	Organic acid shift reagents for the discrimination of carbohydrate isobars by ion mobility-mass spectrometry. Analyst, The, 2020, 145, 8008-8015.	3.5	1
5	â€œ110th Anniversary:â€•Interactions of Bis(1-methyl-1-phenylethyl) Peroxide with the Secondary Antioxidant Bis(octadecyloxycarbonylethyl) Sulfide: Mechanistic Studies Conducted in Dodecane as a Model System for Polyethylene. Industrial & Engineering Chemistry Research, 2019, 58, 14569-14578.	3.7	2
6	Cyclopentadiene Dimerization Kinetics in the Presence of C5 Alkenes and Alkadienes. Industrial & Engineering Chemistry Research, 2019, 58, 22516-22525.	3.7	8
7	CO₂ Promoted Gel Formation of Hydrazine, Monomethylhydrazine, and Ethylenediamine: Structures and Properties. Industrial & Engineering Chemistry Research, 2019, 58, 22652-22662.	3.7	1
8	The Oligomerization of Glucose Under Plausible Prebiotic Conditions. Origins of Life and Evolution of Biospheres, 2019, 49, 225-240.	1.9	4
9	Effect of temperature modulations on TEMPO-mediated regioselective oxidation of unprotected carbohydrates and nucleosides. Bioorganic and Medicinal Chemistry Letters, 2018, 28, 2759-2765.	2.2	2
10	Rapid resolution of carbohydrate isomers <i>via</i> multi-site derivatization ion mobility-mass spectrometry. Analyst, The, 2018, 143, 949-955.	3.5	22
11	Base-Mediated Cascade Aldol Addition and Fragmentation Reactions of Dihydroxyfumaric Acid and Aromatic Aldehydes: Controlling Chemodivergence via Choice of Base, Solvent, and Substituents. Journal of Organic Chemistry, 2018, 83, 14219-14233.	3.2	6
12	Reaction of glycine with glyoxylate: Competing transaminations, aldol reactions, and decarboxylations. Journal of Physical Organic Chemistry, 2017, 30, e3709.	1.9	5
13	Anchimericâ€Assisted Spontaneous Hydrolysis of Cyanohydrins Under Ambient Conditions: Implications for Cyanideâ€Initiated Selective Transformations. Chemistry - A European Journal, 2017, 23, 8756-8765.	3.3	15
14	Continuous Flow Chemistry: Reaction of Diphenyldiazomethane with p-Nitrobenzoic Acid. Journal of Visualized Experiments, 2017, , .	0.3	1
15	Pd-Catalyzed Suzuki coupling reactions of aryl halides containing basic nitrogen centers with arylboronic acids in water in the absence of added base. New Journal of Chemistry, 2017, 41, 15420-15432.	2.8	11
16	pHâ€controlled reaction divergence of decarboxylation versus fragmentation in reactions of dihydroxyfumarate with glyoxylate and formaldehyde: parallels to biological pathways. Journal of Physical Organic Chemistry, 2016, 29, 352-360.	1.9	5
17	Mechanism of Acid-Catalyzed Decomposition of Dicumyl Peroxide in Dodecane: Intermediacy of Cumene Hydroperoxide. Industrial & Engineering Chemistry Research, 2016, 55, 5865-5873.	3.7	9
18	Aqueous Suzuki Coupling Reactions of Basic Nitrogen-Containing Substrates in the Absence of Added Base and Ligand: Observation of High Yields under Acidic Conditions. Journal of Organic Chemistry, 2016, 81, 8520-8529.	3.2	14

#	ARTICLE	IF	CITATIONS
19	A Plausible Prebiotic Origin of Glyoxylate: Nonenzymatic Transamination Reactions of Glycine with Formaldehyde. Synlett, 2016, 28, 93-97.	1.8	6
20	Palladium-Catalyzed Suzuki Reactions in Water with No Added Ligand: Effects of Reaction Scale, Temperature, pH of Aqueous Phase, and Substrate Structure. Organic Process Research and Development, 2016, 20, 1489-1499.	2.7	41
21	Sustainable Chemistry: Reversible reaction of CO2 with amines. French-Ukrainian Journal of Chemistry, 2016, 4, 14-22.	0.4	2
22	Nucleoside phosphorylation by the mineral schreibersite. Scientific Reports, 2015, 5, 17198.	3.3	82
23	The Effects of Solvent and Added Bases on the Protection of Benzylamines with Carbon Dioxide. Processes, 2015, 3, 497-513.	2.8	17
24	Epoxidized linolenic acid salts as multifunctional additives for the thermal stability of plasticized PVC. Journal of Applied Polymer Science, 2015, 132, .	2.6	18
25	Radical-mediated graft modification of polyethylene models with vinyltrimethoxysilane: a theoretical analysis. Structural Chemistry, 2015, 26, 97-107.	2.0	1
26	A Tandem, Bicatalytic Continuous Flow Cyclopropanation-Homo-Nazarov-Type Cyclization. Industrial & Engineering Chemistry Research, 2015, 54, 9550-9558.	3.7	15
27	Enhanced thermal stabilization and reduced color formation of plasticized Poly(vinyl chloride) using zinc and calcium salts of 11-maleimideoundecanoic acid. Polymer Degradation and Stability, 2015, 111, 64-70.	5.8	29
28	Design, Synthesis, and Evaluation of Nonaqueous Silylamines for Efficient CO₂ Capture. ChemSusChem, 2014, 7, 299-307.	6.8	30
29	Solvents for sustainable chemical processes. Green Chemistry, 2014, 16, 1034-1055.	9.0	192
30	Water at elevated temperatures (WET): reactant, catalyst, and solvent in the selective hydrolysis of protecting groups. Green Chemistry, 2014, 16, 2147-2155.	9.0	10
31	The effects of CO₂pressure and pH on the Suzuki coupling of basic nitrogen containing substrates. Organic and Biomolecular Chemistry, 2014, 12, 7598-7602.	2.8	7
32	Reversible ionic surfactants for gold nanoparticle synthesis. Green Materials, 2014, 2, 54-61.	2.1	8
33	Production of Tartrates by Cyanide-Mediated Dimerization of Glyoxylate: A Potential Abiotic Pathway to the Citric Acid Cycle. Journal of the American Chemical Society, 2013, 135, 13440-13445.	13.7	39
34	Indoles via Knoevenagelâ€“Hemetsberger reaction sequence. RSC Advances, 2013, 3, 13232.	3.6	22
35	Reversible Ionic Liquid Stabilized Carbamic Acids: A Pathway Toward Enhanced CO₂ Capture. Industrial & Engineering Chemistry Research, 2013, 52, 13159-13163.	3.7	47
36	COSMO-RS Studies: Structureâ€“Property Relationships for CO₂ Capture by Reversible Ionic Liquids. Industrial & Engineering Chemistry Research, 2012, 51, 16066-16073.	3.7	65

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37	The Synthesis and the Chemical and Physical Properties of Nonâ€Aqueous Silylamine Solvents for Carbon Dioxide Capture. ChemSusChem, 2012, 5, 2181-2187.	6.8	32
38	Switchable solvents. Chemical Science, 2011, 2, 609.	7.4	100
39	Single component, reversible ionic liquids for energy applications. Fuel, 2010, 89, 1315-1319.	6.4	84
40	Benign coupling of reactions and separations with reversible ionic liquids. Tetrahedron, 2010, 66, 1082-1090.	1.9	70
41	Viewing the Cybotactic Structure of Gas-Expanded Liquids. ACS Symposium Series, 2009, , 81-94.	0.5	0
42	Switchable Solvents for in-Situ Acid-Catalyzed Hydrolysis of Î²-Pinene. Industrial & Engineering Chemistry Research, 2009, 48, 2542-2547.	3.7	16
43	One-component, switchable ionic liquids derived from siloxylated amines. Chemical Communications, 2009, , 116-118.	4.1	93
44	In Situ Alkylcarbonic Acid Catalysts Formed in CO2-Expanded Alcohols. ACS Symposium Series, 2009, , 131-144.	0.5	1
45	Molecular Dynamics Simulations of Solvation and Solvent Reorganization Dynamics in CO₂-Expanded Methanol and Acetone. Journal of Chemical Theory and Computation, 2009, 5, 267-275.	5.3	9
46	Switchable Solvents Consisting of Amidine/Alcohol or Guanidine/Alcohol Mixtures. Industrial & Engineering Chemistry Research, 2008, 47, 539-545.	3.7	238
47	Piperylene Sulfone:Â A Recyclable Dimethyl Sulfoxide Substitute for Copper-Catalyzed Aerobic Alcohol Oxidation. Industrial & Engineering Chemistry Research, 2008, 47, 627-631.	3.7	39
48	Hydroformylation Catalyst Recycle with Gas-Expanded Liquids. Industrial & Engineering Chemistry Research, 2008, 47, 2585-2589.	3.7	36
49	Solvent Effects on the Kinetics of a Dielsâ^'Alder Reaction in Gas-Expanded Liquids. Industrial & Engineering Chemistry Research, 2008, 47, 632-637.	3.7	28
50	Ionic Liquids as Vehicles for Reactions and Separations. ACS Symposium Series, 2007, , 198-211.	0.5	4
51	Coupling chiral homogeneous biocatalytic reactions with benign heterogeneous separation. Green Chemistry, 2007, 9, 888.	9.0	26
52	Self-Neutralizing in Situ Acid Catalysis for Single-Pot Synthesis of Iodobenzene and Methyl Yellow in CO₂-Expanded Methanol. Industrial & Engineering Chemistry Research, 2007, 46, 5252-5257.	3.7	31
53	Tunable solvents for fine chemicals from the biorefinery. Green Chemistry, 2007, 9, 545.	9.0	58
54	Self-neutralizing in situ Acid Catalysts from CO2. Topics in Catalysis, 2006, 37, 75-80.	2.8	35

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55	Reversible nonpolar-to-polar solvent. Nature, 2005, 436, 1102-1102.	27.8	836
56	Reversible in situ acid formation for Î²-pinene hydrolysis using CO2expanded liquid and hot water. Green Chemistry, 2004, 6, 382-386.	9.0	78
57	CO2-Induced Miscibility of Fluorous and Organic Solvents for Recycling Homogeneous Catalysts. Industrial & Engineering Chemistry Research, 2004, 43, 4827-4832.	3.7	51
58	CO2-Protected Amine Formation from Nitrile and Imine Hydrogenation in Gas-Expanded Liquids. Industrial & Engineering Chemistry Research, 2004, 43, 7907-7911.	3.7	84
59	Surface modification of polybutadiene facilitated by supercritical carbon dioxide. Journal of Applied Polymer Science, 2003, 88, 522-530.	2.6	14
60	The catalytic opportunities of near-critical water: a benign medium for conventionally acid and base catalyzed condensations for organic synthesis. Green Chemistry, 2003, 5, 663-669.	9.0	92
61	Neoteric solvents for asymmetric hydrogenation: supercritical fluids, ionic liquids, and expanded ionic liquidsThis work was presented at the Green Solvents for Catalysis Meeting held in Bruchsal, Germany, 13â€"16th October 2002.. Green Chemistry, 2003, 5, 123-128.	9.0	131
62	The One-Pot Synthesis and Diels-Alder Reactivity of 2,5-Dihydrothiophene- 1,1-dioxide-3-carboxylic Acid. Synthetic Communications, 2003, 33, 3643-3650.	2.1	9
63	Catalysis Using Supercritical or Subcritical Inert Gases under Split-Phase Conditions. ACS Symposium Series, 2002, , 97-112.	0.5	8
64	Phase-Transfer-Catalyzed Alkylation of Phenylacetonitrile in Supercritical Ethane. Industrial & Engineering Chemistry Research, 2002, 41, 1763-1767.	3.7	6
65	Ionic liquids as catalytic green solvents for nucleophilic displacement reactions. Chemical Communications, 2001, , 887-888.	4.1	110
66	In Situ Formation of Alkylcarbonic Acids with CO2. Journal of Physical Chemistry A, 2001, 105, 3947-3948.	2.5	104
67	Polarity and hydrogen-bonding of ambient to near-critical water: Kamletâ€"Taft solvent parameters. Chemical Communications, 2001, , 665-666.	4.1	57
68	Near-Critical Water:Â A Benign Medium for Catalytic Reactions. Industrial & Engineering Chemistry Research, 2001, 40, 6063-6067.	3.7	77
69	Effect of linear comonomers on the rate of crystallization of copolyesters. Journal of Applied Polymer Science, 2001, 80, 2696-2704.	2.6	8
70	Effect of comonomers on the rate of crystallization of PET: U-turn comonomers. Journal of Applied Polymer Science, 2001, 81, 1675-1682.	2.6	9
71	Spectroscopic measurement of solid solubility in supercritical fluids. AIChE Journal, 2001, 47, 2566-2572.	3.6	51
72	Synthesis and Thermal Characterization of Poly(alkylene 2,6-anthracenedicarboxylate)s. Macromolecular Chemistry and Physics, 2001, 202, 1776-1781.	2.2	4

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73	Pyrene and anthracene dicarboxylic acids as fluorescent brightening comonomers for polyester. Journal of Polymer Science Part A, 2000, 38, 1291-1301.	2.3	18
74	Photochemical Cross-Linking of Poly(ethylene terephthalate-co-2,6-anthracenedicarboxylate). Macromolecules, 2000, 33, 1640-1645.	4.8	31
75	Acylation of activated aromatics without added acid catalyst. Chemical Communications, 2000, , 1295-1296.	4.1	28
76	Cross-Linking and Modification of Poly(ethylene terephthalate-co-2,6-anthracenedicarboxylate) by Dielsâ˘'Alder Reactions with Maleimides. Macromolecules, 1999, 32, 5786-5792.	4.8	121
77	Supercritical Fluid Separation for Selective Quaternary Ammonium Salt Promoted Esterification of Terephthalic Acid. Industrial & Engineering Chemistry Research, 1999, 38, 3622-3627.	3.7	16
78	Tuning alkylation reactions with temperature in near-critical water. AIChE Journal, 1998, 44, 2080-2087.	3.6	49
79	Phase Equilibria for Binary Aqueous Systems from a Near-Critical Water Reaction Apparatus. Industrial & Engineering Chemistry Research, 1998, 37, 3515-3518.	3.7	56
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91	Organic transformations mediated by macrocyclic multidentate ligands. , 0, , 59-76.		0
92	Synthesis of 5-Substituted Tetrazoles: Reaction of Azide Salts with Organonitriles Catalyzed by Trialkylammonium Salts in Non-polar Media. Organic Process Research and Development, 0, , .	2.7	3