Charles L Liotta

List of Publications by Year
in descending order

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

136950

118850

#	Article	IF	Citations
1	Reversible nonpolar-to-polar solvent. Nature, 2005, 436, 1102-1102.	27.8	836
2	Switchable Solvents Consisting of Amidine/Alcohol or Guanidine/Alcohol Mixtures. Industrial & Engineering Chemistry Research, 2008, 47, 539-545.	3.7	238
3	Solvents for sustainable chemical processes. Green Chemistry, 2014, 16, 1034-1055.	9.0	192
4	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
5	Cosolvent interactions in supercritical fluid solutions. AICHE Journal, 1993, 39, 235-248.	3.6	125
6	Cross-Linking and Modification of Poly(ethylene terephthalate-co-2,6-anthracenedicarboxylate) by Dielsâˆ'Alder Reactions with Maleimides. Macromolecules, 1999, 32, 5786-5792.	4.8	121
7	Ionic liquids as catalytic green solvents for nucleophilic displacement reactions. Chemical Communications, 2001, , 887-888.	4.1	110
8	In Situ Formation of Alkylcarbonic Acids with CO2. Journal of Physical Chemistry A, 2001, 105, 3947-3948.	2.5	104
9	Switchable solvents. Chemical Science, 2011, 2, 609.	7.4	100
10	One-component, switchable ionic liquids derived from siloxylated amines. Chemical Communications, 2009, , 116-118.	4.1	93
11	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
12	CO2-Protected Amine Formation from Nitrile and Imine Hydrogenation in Gas-Expanded Liquids. Industrial & Engineering Chemistry Research, 2004, 43, 7907-7911.	3.7	84
13	Single component, reversible ionic liquids for energy applications. Fuel, 2010, 89, 1315-1319.	6.4	84
14	Nucleoside phosphorylation by the mineral schreibersite. Scientific Reports, 2015, 5, 17198.	3.3	82
15	Reversible in situ acid formation for Î²-pinene hydrolysis using CO2expanded liquid and hot water. Green Chemistry, 2004, 6, 382-386.	9.0	78
16	Near-Critical Water:Â A Benign Medium for Catalytic Reactions. Industrial & Engineering Chemistry Research, 2001, 40, 6063-6067.	3.7	77
17	Benign coupling of reactions and separations with reversible ionic liquids. Tetrahedron, 2010, 66, 1082-1090.	1.9	70
18	COSMO-RS Studies: Structureâ€“Property Relationships for CO₂ Capture by Reversible Ionic Liquids. Industrial & Engineering Chemistry Research, 2012, 51, 16066-16073.	3.7	65

#	Article	IF	Citations
19	Kinetics of a Phase-Transfer Catalysis Reaction in Supercritical Fluid Carbon Dioxide. Industrial & Engineering Chemistry Research, 1996, 35, 1801-1806.	3.7	63
20	Tunable solvents for fine chemicals from the biorefinery. Green Chemistry, 2007, 9, 545.	9.0	58
21	Polarity and hydrogen-bonding of ambient to near-critical water: Kamletâ€"Taft solvent parameters. Chemical Communications, 2001, , 665-666.	4.1	57
22	Phase Equilibria for Binary Aqueous Systems from a Near-Critical Water Reaction Apparatus. Industrial & Engineering Chemistry Research, 1998, 37, 3515-3518.	3.7	56
23	Spectroscopic measurement of solid solubility in supercritical fluids. AICHE Journal, 2001, 47, 2566-2572.	3.6	51
24	CO2-Induced Miscibility of Fluorous and Organic Solvents for Recycling Homogeneous Catalysts. Industrial & Engineering Chemistry Research, 2004, 43, 4827-4832.	3.7	51
25	Tuning alkylation reactions with temperature in near-critical water. AICHE Journal, 1998, 44, 2080-2087.	3.6	49
26	Reversible Ionic Liquid Stabilized Carbamic Acids: A Pathway Toward Enhanced CO₂ Capture. Industrial & Engineering Chemistry Research, 2013, 52, 13159-13163.	3.7	47
27	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
28	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
29	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
30	Cosolvent tuning of tautomeric equilibrium in supercritical fluids. AICHE Journal, 1997, 43, 515-524.	3.6	38
31	Hydroformylation Catalyst Recycle with Gas-Expanded Liquids. Industrial & Engineering Chemistry Research, 2008, 47, 2585-2589.	3.7	36
32	Self-neutralizing in situ Acid Catalysts from CO2. Topics in Catalysis, 2006, 37, 75-80.	2.8	35
33	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
34	Photochemical Cross-Linking of Poly(ethylene terephthalate-co-2,6-anthracenedicarboxylate). Macromolecules, 2000, 33, 1640-1645.	4.8	31
35	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
36	Design, Synthesis, and Evaluation of Nonaqueous Silylamines for Efficient CO₂ Capture. ChemSusChem, 2014, 7, 299-307.	6.8	30

#	Article	IF	Citations
37	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
38	Acylation of activated aromatics without added acid catalyst. Chemical Communications, 2000, , 1295-1296.	4.1	28
39	Solvent Effects on the Kinetics of a Dielsâˆ’Alder Reaction in Gas-Expanded Liquids. Industrial & Engineering Chemistry Research, 2008, 47, 632-637.	3.7	28
40	Coupling chiral homogeneous biocatalytic reactions with benign heterogeneous separation. Green Chemistry, 2007, 9, 888.	9.0	26
41	Indoles via Knoevenagelâ€“Hemetsberger reaction sequence. RSC Advances, 2013, 3, 13232.	3.6	22
42	Rapid resolution of carbohydrate isomers <i>via</i> multi-site derivatization ion mobility-mass spectrometry. Analyst, The, 2018, 143, 949-955.	3.5	22
43	Mechanisms and Applications of Solidâ€”Liquid Phase-Transfer Catalysis. ACS Symposium Series, 1997, , 29-40.	0.5	18
44	Pyrene and anthracene dicarboxylic acids as fluorescent brightening comonomers for polyester. Journal of Polymer Science Part A, 2000, 38, 1291-1301.	2.3	18
45	Epoxidized linolenic acid salts as multifunctional additives for the thermal stability of plasticized PVC. Journal of Applied Polymer Science, 2015, 132, .	2.6	18
46	The Effects of Solvent and Added Bases on the Protection of Benzylamines with Carbon Dioxide. Processes, 2015, 3, 497-513.	2.8	17
47	Supercritical Fluid Separation for Selective Quaternary Ammonium Salt Promoted Esterification of Terephthalic Acid. Industrial & Engineering Chemistry Research, 1999, 38, 3622-3627.	3.7	16
48	Switchable Solvents for in-Situ Acid-Catalyzed Hydrolysis of Î²-Pinene. Industrial & Engineering Chemistry Research, 2009, 48, 2542-2547.	3.7	16
49	A Tandem, Bicatalytic Continuous Flow Cyclopropanation-Homo-Nazarov-Type Cyclization. Industrial & Engineering Chemistry Research, 2015, 54, 9550-9558.	3.7	15
50	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
51	Surface modification of polybutadiene facilitated by supercritical carbon dioxide. Journal of Applied Polymer Science, 2003, 88, 522-530.	2.6	14
52	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
53	Kinetics of a Dielsâ€”Alder Reaction in Supercritical Propane. ACS Symposium Series, 1995, , 166-178.	0.5	11
54	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

#	Article	IF	Citations
55	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
56			

#	Article	IF	Citations
73	Synthesis and Thermal Characterization of Poly(alkylene 2,6-anthracenedicarboxylate)s. Macromolecular Chemistry and Physics, 2001, 202, 1776-1781.	2.2	4
74	Ionic Liquids as Vehicles for Reactions and Separations. ACS Symposium Series, 2007, , 198-211.	0.5	4
75	The Oligomerization of Glucose Under Plausible Prebiotic Conditions. Origins of Life and Evolution of Biospheres, 2019, 49, 225-240.	1.9	4
76	Mechanistic Studies Related to the Thermal Chemistry of Simulated Nuclear Wastes That Mimic the Contents of a Hanford Site Double-Shell Tank. ACS Symposium Series, 1994, , 249-284.	0.5	3
77	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
78	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
79	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
80	Sustainable Chemistry: Reversible reaction of CO2 with amines. French-Ukrainian Journal of Chemistry, 2016, 4, 14-22.	0.4	2
81	Reaction of Diphenyldiazomethane with Benzoic Acids in Batch and Continuous Flow. Journal of Chemical Education, 2021, 98, 469-477.	2.3	2
82	In Situ Alkylcarbonic Acid Catalysts Formed in CO2-Expanded Alcohols. ACS Symposium Series, 2009, , 131-144.	0.5	1
83	Radical-mediated graft modification of polyethylene models with vinyltrimethoxysilane: a theoretical analysis. Structural Chemistry, 2015, 26, 97-107.	2.0	1
84	Continuous Flow Chemistry: Reaction of Diphenyldiazomethane with p-Nitrobenzoic Acid. Journal of Visualized Experiments, 2017, , .	0.3	1
85	CO₂ Promoted Gel Formation of Hydrazine, Monomethylhydrazine, and Ethylenediamine: Structures and Properties. Industrial & Engineering Chemistry Research, 2019, 58, 22652-22662.	3.7	1
86	Organic acid shift reagents for the discrimination of carbohydrate isobars by ion mobility-mass spectrometry. Analyst, The, 2020, 145, 8008-8015.	3.5	1
87	Synthesis of Polycondensable Anthraquinone Dyes and ColouredNylon Fibres: I. Polymer International, 1996, 41, 391-394.	3.1	0
88	Synthesis of polycondensable anthraquinone dyes and coloured nylon fibres: II. Polymer International, 1997, 44, 134-136.	3.1	0
89	Synthesis of polycondensable anthraquinone dyes and coloured nylon fibres: III. Polymer International, 1997, 44, 461-464.	3.1	0
90	Viewing the Cybotactic Structure of Gas-Expanded Liquids. ACS Symposium Series, 2009, , 81-94.	0.5	0

#	Article	IF	Citations
91	Organic transformations mediated by macrocyclic multidentate ligands. , 0, , 157-174.		0
92	Organic transformations mediated by macrocyclic multidentate ligands. , 0, , 59-76.		0