

# Charles L Liotta

## List of Publications by Year in descending order

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92  
papers

3,972  
citations

136740

32  
h-index

118652

62  
g-index

95  
all docs

95  
docs citations

95  
times ranked

3832  
citing authors

#	ARTICLE	IF	CITATIONS
1	Reversible nonpolar-to-polar solvent. <i>Nature</i> , 2005, 436, 1102-1102.	13.7	836
2	Switchable Solvents Consisting of Amidine/Alcohol or Guanidine/Alcohol Mixtures. <i>Industrial &amp; Engineering Chemistry Research</i> , 2008, 47, 539-545.	1.8	238
3	Solvents for sustainable chemical processes. <i>Green Chemistry</i> , 2014, 16, 1034-1055.	4.6	192
4	Neoteric solvents for asymmetric hydrogenation: supercritical fluids, ionic liquids, and expanded ionic liquids This work was presented at the Green Solvents for Catalysis Meeting held in Bruchsal, Germany, 13-16th October 2002.. <i>Green Chemistry</i> , 2003, 5, 123-128.	4.6	131
5	Cosolvent interactions in supercritical fluid solutions. <i>AIChE Journal</i> , 1993, 39, 235-248.	1.8	125
6	Cross-Linking and Modification of Poly(ethylene terephthalate-co-2,6-anthracenedicarboxylate) by Diels-Alder Reactions with Maleimides. <i>Macromolecules</i> , 1999, 32, 5786-5792.	2.2	121
7	Ionic liquids as catalytic green solvents for nucleophilic displacement reactions. <i>Chemical Communications</i> , 2001, , 887-888.	2.2	110
8	In Situ Formation of Alkylcarbonic Acids with CO <sub>2</sub> . <i>Journal of Physical Chemistry A</i> , 2001, 105, 3947-3948.	1.1	104
9	Switchable solvents. <i>Chemical Science</i> , 2011, 2, 609.	3.7	100
10	One-component, switchable ionic liquids derived from siloxylated amines. <i>Chemical Communications</i> , 2009, , 116-118.	2.2	93
11	The catalytic opportunities of near-critical water: a benign medium for conventionally acid and base catalyzed condensations for organic synthesis. <i>Green Chemistry</i> , 2003, 5, 663-669.	4.6	92
12	CO <sub>2</sub> -Protected Amine Formation from Nitrile and Imine Hydrogenation in Gas-Expanded Liquids. <i>Industrial &amp; Engineering Chemistry Research</i> , 2004, 43, 7907-7911.	1.8	84
13	Single component, reversible ionic liquids for energy applications. <i>Fuel</i> , 2010, 89, 1315-1319.	3.4	84
14	Nucleoside phosphorylation by the mineral schreibersite. <i>Scientific Reports</i> , 2015, 5, 17198.	1.6	82
15	Reversible in situ acid formation for $\beta$ -pinene hydrolysis using CO <sub>2</sub> expanded liquid and hot water. <i>Green Chemistry</i> , 2004, 6, 382-386.	4.6	78
16	Near-Critical Water: A Benign Medium for Catalytic Reactions. <i>Industrial &amp; Engineering Chemistry Research</i> , 2001, 40, 6063-6067.	1.8	77
17	Benign coupling of reactions and separations with reversible ionic liquids. <i>Tetrahedron</i> , 2010, 66, 1082-1090.	1.0	70
18	COSMO-RS Studies: Structure-Property Relationships for CO <sub>2</sub> Capture by Reversible Ionic Liquids. <i>Industrial &amp; Engineering Chemistry Research</i> , 2012, 51, 16066-16073.	1.8	65

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19	Kinetics of a Phase-Transfer Catalysis Reaction in Supercritical Fluid Carbon Dioxide. <i>Industrial &amp; Engineering Chemistry Research</i> , 1996, 35, 1801-1806.	1.8	63
20	Tunable solvents for fine chemicals from the biorefinery. <i>Green Chemistry</i> , 2007, 9, 545.	4.6	58
21	Polarity and hydrogen-bonding of ambient to near-critical water: Kamlet-Taft solvent parameters. <i>Chemical Communications</i> , 2001, , 665-666.	2.2	57
22	Phase Equilibria for Binary Aqueous Systems from a Near-Critical Water Reaction Apparatus. <i>Industrial &amp; Engineering Chemistry Research</i> , 1998, 37, 3515-3518.	1.8	56
23	Spectroscopic measurement of solid solubility in supercritical fluids. <i>AIChE Journal</i> , 2001, 47, 2566-2572.	1.8	51
24	CO <sub>2</sub> -Induced Miscibility of Fluorous and Organic Solvents for Recycling Homogeneous Catalysts. <i>Industrial &amp; Engineering Chemistry Research</i> , 2004, 43, 4827-4832.	1.8	51
25	Tuning alkylation reactions with temperature in near-critical water. <i>AIChE Journal</i> , 1998, 44, 2080-2087.	1.8	49
26	Reversible Ionic Liquid Stabilized Carbamic Acids: A Pathway Toward Enhanced CO <sub>2</sub> Capture. <i>Industrial &amp; Engineering Chemistry Research</i> , 2013, 52, 13159-13163.	1.8	47
27	Palladium-Catalyzed Suzuki Reactions in Water with No Added Ligand: Effects of Reaction Scale, Temperature, pH of Aqueous Phase, and Substrate Structure. <i>Organic Process Research and Development</i> , 2016, 20, 1489-1499.	1.3	41
28	Piperylene Sulfone: A Recyclable Dimethyl Sulfoxide Substitute for Copper-Catalyzed Aerobic Alcohol Oxidation. <i>Industrial &amp; Engineering Chemistry Research</i> , 2008, 47, 627-631.	1.8	39
29	Production of Tartrates by Cyanide-Mediated Dimerization of Glyoxylate: A Potential Abiotic Pathway to the Citric Acid Cycle. <i>Journal of the American Chemical Society</i> , 2013, 135, 13440-13445.	6.6	39
30	Cosolvent tuning of tautomeric equilibrium in supercritical fluids. <i>AIChE Journal</i> , 1997, 43, 515-524.	1.8	38
31	Hydroformylation Catalyst Recycle with Gas-Expanded Liquids. <i>Industrial &amp; Engineering Chemistry Research</i> , 2008, 47, 2585-2589.	1.8	36
32	Self-neutralizing in situ Acid Catalysts from CO <sub>2</sub> . <i>Topics in Catalysis</i> , 2006, 37, 75-80.	1.3	35
33	The Synthesis and the Chemical and Physical Properties of Non-Aqueous Silylamine Solvents for Carbon Dioxide Capture. <i>ChemSusChem</i> , 2012, 5, 2181-2187.	3.6	32
34	Photochemical Cross-Linking of Poly(ethylene terephthalate-co-2,6-anthracenedicarboxylate). <i>Macromolecules</i> , 2000, 33, 1640-1645.	2.2	31
35	Self-Neutralizing in Situ Acid Catalysis for Single-Pot Synthesis of Iodobenzene and Methyl Yellow in CO <sub>2</sub> -Expanded Methanol. <i>Industrial &amp; Engineering Chemistry Research</i> , 2007, 46, 5252-5257.	1.8	31
36	Design, Synthesis, and Evaluation of Nonaqueous Silylamines for Efficient CO <sub>2</sub> Capture. <i>ChemSusChem</i> , 2014, 7, 299-307.	3.6	30

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37	Enhanced thermal stabilization and reduced color formation of plasticized Poly(vinyl chloride) using zinc and calcium salts of 11-maleimideundecanoic acid. <i>Polymer Degradation and Stability</i> , 2015, 111, 64-70.	2.7	29
38	Acylation of activated aromatics without added acid catalyst. <i>Chemical Communications</i> , 2000, , 1295-1296.	2.2	28
39	Solvent Effects on the Kinetics of a Diels-Alder Reaction in Gas-Expanded Liquids. <i>Industrial &amp; Engineering Chemistry Research</i> , 2008, 47, 632-637.	1.8	28
40	Coupling chiral homogeneous biocatalytic reactions with benign heterogeneous separation. <i>Green Chemistry</i> , 2007, 9, 888.	4.6	26
41	Indoles via Knoevenagel-Hemetsberger reaction sequence. <i>RSC Advances</i> , 2013, 3, 13232.	1.7	22
42	Rapid resolution of carbohydrate isomers via multi-site derivatization ion mobility-mass spectrometry. <i>Analyst</i> , 2018, 143, 949-955.	1.7	22
43	Mechanisms and Applications of Solid-Liquid Phase-Transfer Catalysis. <i>ACS Symposium Series</i> , 1997, , 29-40.	0.5	18
44	Pyrene and anthracene dicarboxylic acids as fluorescent brightening comonomers for polyester. <i>Journal of Polymer Science Part A</i> , 2000, 38, 1291-1301.	2.5	18
45	Epoxidized linolenic acid salts as multifunctional additives for the thermal stability of plasticized PVC. <i>Journal of Applied Polymer Science</i> , 2015, 132, .	1.3	18
46	The Effects of Solvent and Added Bases on the Protection of Benzylamines with Carbon Dioxide. <i>Processes</i> , 2015, 3, 497-513.	1.3	17
47	Supercritical Fluid Separation for Selective Quaternary Ammonium Salt Promoted Esterification of Terephthalic Acid. <i>Industrial &amp; Engineering Chemistry Research</i> , 1999, 38, 3622-3627.	1.8	16
48	Switchable Solvents for in-Situ Acid-Catalyzed Hydrolysis of $\beta^2$ -Pinene. <i>Industrial &amp; Engineering Chemistry Research</i> , 2009, 48, 2542-2547.	1.8	16
49	A Tandem, Bimetallic Continuous Flow Cyclopropanation-Homo-Nazarov-Type Cyclization. <i>Industrial &amp; Engineering Chemistry Research</i> , 2015, 54, 9550-9558.	1.8	15
50	Anchimeric-Assisted Spontaneous Hydrolysis of Cyanohydrins Under Ambient Conditions: Implications for Cyanide-Initiated Selective Transformations. <i>Chemistry - A European Journal</i> , 2017, 23, 8756-8765.	1.7	15
51	Surface modification of polybutadiene facilitated by supercritical carbon dioxide. <i>Journal of Applied Polymer Science</i> , 2003, 88, 522-530.	1.3	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. <i>Journal of Organic Chemistry</i> , 2016, 81, 8520-8529.	1.7	14
53	Kinetics of a Diels-Alder Reaction in Supercritical Propane. <i>ACS Symposium Series</i> , 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. <i>New Journal of Chemistry</i> , 2017, 41, 15420-15432.	1.4	11

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55	Water at elevated temperatures (WET): reactant, catalyst, and solvent in the selective hydrolysis of protecting groups. <i>Green Chemistry</i> , 2014, 16, 2147-2155.	4.6	10

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73	Synthesis and Thermal Characterization of Poly(alkylene 2,6-anthracenedicarboxylate)s. <i>Macromolecular Chemistry and Physics</i> , 2001, 202, 1776-1781.	1.1	4
74	Ionic Liquids as Vehicles for Reactions and Separations. <i>ACS Symposium Series</i> , 2007, , 198-211.	0.5	4
75	The Oligomerization of Glucose Under Plausible Prebiotic Conditions. <i>Origins of Life and Evolution of Biospheres</i> , 2019, 49, 225-240.	0.8	4
76	Mechanistic Studies Related to the Thermal Chemistry of Simulated Nuclear Wastes That Mimic the Contents of a Hanford Site Double-Shell Tank. <i>ACS Symposium Series</i> , 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. <i>Organic Process Research and Development</i> , 0, , .	1.3	3
78	Effect of temperature modulations on TEMPO-mediated regioselective oxidation of unprotected carbohydrates and nucleosides. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2018, 28, 2759-2765.	1.0	2
79	110th Anniversary: 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. <i>Industrial &amp; Engineering Chemistry Research</i> , 2019, 58, 14569-14578.	1.8	2
80	Sustainable Chemistry: Reversible reaction of CO <sub>2</sub> with amines. <i>French-Ukrainian Journal of Chemistry</i> , 2016, 4, 14-22.	0.1	2
81	Reaction of Diphenyldiazomethane with Benzoic Acids in Batch and Continuous Flow. <i>Journal of Chemical Education</i> , 2021, 98, 469-477.	1.1	2
82	In Situ Alkylcarbonic Acid Catalysts Formed in CO <sub>2</sub> -Expanded Alcohols. <i>ACS Symposium Series</i> , 2009, , 131-144.	0.5	1
83	Radical-mediated graft modification of polyethylene models with vinyltrimethoxysilane: a theoretical analysis. <i>Structural Chemistry</i> , 2015, 26, 97-107.	1.0	1
84	Continuous Flow Chemistry: Reaction of Diphenyldiazomethane with <i>p</i> -Nitrobenzoic Acid. <i>Journal of Visualized Experiments</i> , 2017, , .	0.2	1
85	CO <sub>2</sub> Promoted Gel Formation of Hydrazine, Monomethylhydrazine, and Ethylenediamine: Structures and Properties. <i>Industrial &amp; Engineering Chemistry Research</i> , 2019, 58, 22652-22662.	1.8	1
86	Organic acid shift reagents for the discrimination of carbohydrate isobars by ion mobility-mass spectrometry. <i>Analyst</i> , The, 2020, 145, 8008-8015.	1.7	1
87	Synthesis of Polycondensable Anthraquinone Dyes and Coloured Nylon Fibres: I. <i>Polymer International</i> , 1996, 41, 391-394.	1.6	0
88	Synthesis of polycondensable anthraquinone dyes and coloured nylon fibres: II. <i>Polymer International</i> , 1997, 44, 134-136.	1.6	0
89	Synthesis of polycondensable anthraquinone dyes and coloured nylon fibres: III. <i>Polymer International</i> , 1997, 44, 461-464.	1.6	0
90	Viewing the Cybotactic Structure of Gas-Expanded Liquids. <i>ACS Symposium Series</i> , 2009, , 81-94.	0.5	0

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