

Thierry Tassaing

List of Publications by Year in descending order

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106
papers

4,064
citations

94269

37
h-index

128067

60
g-index

106
all docs

106
docs citations

106
times ranked

3472
citing authors

#	ARTICLE	IF	CITATIONS
1	En Route to CO ₂ -Based (a)Cyclic Carbonates and Polycarbonates from Alcohols Substrates by Direct and Indirect Approaches. <i>Catalysts</i> , 2022, 12, 124.	1.6	13
2	FTIR in situ measurement of swelling and CO ₂ sorption in acrylic polymers at high CO ₂ pressures. <i>Journal of Supercritical Fluids</i> , 2022, 182, 105534.	1.6	5
3	Unifying Step-Growth Polymerization and On-Demand Cascade Ring-Closure Depolymerization via Polymer Skeletal Editing. <i>Macromolecules</i> , 2022, 55, 4637-4646.	2.2	4
4	Visible-light induced photochemistry of Electron Donor-Acceptor Complexes in Perfluoroalkylation Reactions: Investigation of halogen bonding interactions through UV-Visible absorption and Raman spectroscopies combined with DFT calculations. <i>Journal of Molecular Liquids</i> , 2021, 333, 115993.	2.3	5
5	Hydrogenation of Sugars to Sugar Alcohols in the Presence of a Recyclable Ru/Al ₂ O ₃ Catalyst Commercially Available. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 9240-9247.	3.2	26
6	Tuning the release profile of ketoprofen from poly(L-lactic acid) suture using supercritical CO ₂ impregnation process. <i>Journal of Drug Delivery Science and Technology</i> , 2020, 55, 101468.	1.4	14
7	Formation of corrosion products on zinc in wet supercritical and subcritical CO ₂ : In-situ spectroscopic study. <i>Corrosion Science</i> , 2020, 174, 108850.	3.0	15
8	One-pot synthesis of isosorbide from cellulose or lignocellulosic biomass: a challenge?. <i>Beilstein Journal of Organic Chemistry</i> , 2020, 16, 1713-1721.	1.3	19
9	Supercritical loading of gatifloxacin into hydrophobic foldable intraocular lenses – Process control and optimization by following in situ CO ₂ sorption and polymer swelling. <i>International Journal of Pharmaceutics</i> , 2020, 581, 119247.	2.6	12
10	Chemoselective and Regioselective Additions of Nucleophiles to Cyclic Carbonates for the Preparation of Self-Blowing Nonisocyanate Polyurethane Foams. <i>Angewandte Chemie</i> , 2020, 132, 17181-17189.	1.6	20
11	A Catalytic Domino Approach toward Oxo-Alkyl Carbonates and Polycarbonates from CO ₂ , Propargylic Alcohols, and (Mono- and Di-)Alcohols. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 9698-9710.	3.2	21
12	Chemoselective and Regioselective Additions of Nucleophiles to Cyclic Carbonates for the Preparation of Self-Blowing Nonisocyanate Polyurethane Foams. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 17033-17041.	7.2	60
13	A Rational Investigation of the Lewis Acid-Promoted Coupling of Carbon Dioxide with Cyclohexene Oxide: Towards CO ₂ -Sourced Polycyclohexene Carbonate under Solvent- and Cocatalyst-Free Conditions. <i>Journal of Carbon Research</i> , 2019, 5, 39.	1.4	2
14	Detailed Understanding of the DBU/CO ₂ Switchable Solvent System for Cellulose Solubilization and Derivatization. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 1496-1503.	3.2	54
15	In situ Raman investigation of the preparation of HDS catalyst precursors using scCO ₂ . <i>Journal of Supercritical Fluids</i> , 2018, 141, 104-112.	1.6	5
16	Boosting the Catalytic Performance of Organic Salts for the Fast and Selective Synthesis of α -Alkylidene Cyclic Carbonates from Carbon Dioxide and Propargylic Alcohols. <i>ChemCatChem</i> , 2018, 10, 2584-2592.	1.8	38
17	Tetrabutylammonium Salts: Cheap Catalysts for the Facile and Selective Synthesis of α -Alkylidene Cyclic Carbonates from Carbon Dioxide and Alkynols. <i>ChemCatChem</i> , 2018, 10, 956-960.	1.8	33
18	On the CO ₂ sorption and swelling of elastomers by supercritical CO ₂ as studied by in situ high pressure FTIR microscopy. <i>Journal of Supercritical Fluids</i> , 2018, 131, 150-156.	1.6	19

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19	Current manufacturing processes of drug-eluting sutures. Expert Opinion on Drug Delivery, 2017, 14, 1293-1303.	2.4	30
20	Organocatalyzed coupling of carbon dioxide with epoxides for the synthesis of cyclic carbonates: catalyst design and mechanistic studies. Catalysis Science and Technology, 2017, 7, 2651-2684.	2.1	403
21	DFT investigation of the reaction mechanism for the guanidine catalysed ring-opening of cyclic carbonates by aromatic and alkyl-amines. RSC Advances, 2017, 7, 18993-19001.	1.7	43
22	On the phase behaviour of oxetane-CO ₂ and propargylic alcohols-CO ₂ binary mixtures by in situ infrared micro-spectrometry. Journal of Supercritical Fluids, 2017, 128, 308-313.	1.6	3
23	Organocatalytic Coupling of CO ₂ with a Propargylic Alcohol: A Comprehensive Mechanistic Study. ChemSusChem, 2017, 10, 1241-1248.	3.6	32
24	CO ₂ -Sourced α -Alkylidene Cyclic Carbonates: A Step Forward in the Quest for Functional Regioregular Poly(urethane)s and Poly(carbonate)s. Angewandte Chemie, 2017, 129, 10530-10534.	1.6	29
25	CO ₂ -Sourced α -Alkylidene Cyclic Carbonates: A Step Forward in the Quest for Functional Regioregular Poly(urethane)s and Poly(carbonate)s. Angewandte Chemie - International Edition, 2017, 56, 10394-10398.	7.2	109
26	Organocatalytic Coupling of CO ₂ with Oxetane. ChemSusChem, 2017, 10, 1128-1138.	3.6	45
27	The local structure of sub- and supercritical water as studied by FTIR spectroscopy and molecular dynamics simulations. Journal of Molecular Liquids, 2017, 239, 61-67.	2.3	6
28	A comprehensive density functional theory study of the key role of fluorination and dual hydrogen bonding in the activation of the epoxide/CO ₂ coupling by fluorinated alcohols. RSC Advances, 2016, 6, 36327-36335.	1.7	31
29	Application of online infrared spectroscopy to study the kinetics of precipitation polymerization of acrylic acid in supercritical carbon dioxide. Reaction Chemistry and Engineering, 2016, 1, 372-378.	1.9	20
30	On the phase behavior of the quaternary system acrylic acid-water-ethanol-CO ₂ by in situ infrared spectrometry. Journal of Supercritical Fluids, 2016, 116, 117-125.	1.6	4
31	Structure-Property Relationships in CO ₂ -philic (Co)polymers: Phase Behavior, Self-Assembly, and Stabilization of Water/CO ₂ Emulsions. Chemical Reviews, 2016, 116, 4125-4169.	23.0	64
32	Solubility and Speciation of Ketoprofen and Aspirin in Supercritical CO ₂ by Infrared Spectroscopy. Journal of Chemical & Engineering Data, 2016, 61, 968-978.	1.0	23
33	Fluorinated Alcohols as Activators for the Solvent-Free Chemical Fixation of Carbon Dioxide into Epoxides. ChemSusChem, 2015, 8, 1845-1849.	3.6	102
34	Organocatalytic synthesis of bio-based cyclic carbonates from CO ₂ and vegetable oils. RSC Advances, 2015, 5, 53629-53636.	1.7	60
35	Drug loading of polymer implants by supercritical CO ₂ assisted impregnation: A review. Journal of Controlled Release, 2015, 209, 248-259.	4.8	191
36	Drug Loading of Sutures by Supercritical CO ₂ Impregnation: Effect of Polymer/Drug Interactions and Thermal Transitions. Macromolecular Materials and Engineering, 2015, 300, 596-610.	1.7	55

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37	Enhanced Solubility of Polyvinyl Esters in $scCO_2$ by Means of Vinyl Trifluorobutyrate Monomer. <i>ACS Macro Letters</i> , 2015, 4, 89-93.	2.3	55
38	Organocatalytic promoted coupling of carbon dioxide with epoxides: a rational investigation of the cocatalytic activity of various hydrogen bond donors. <i>Catalysis Science and Technology</i> , 2015, 5, 4636-4643.	2.1	91
39	In situ investigation of supercritical CO_2 assisted impregnation of drugs into a polymer by high pressure FTIR micro-spectroscopy. <i>Analyst</i> , 2015, 140, 869-879.	1.7	21
40	Insights into the Organocatalyzed Synthesis of Urethanes in Supercritical Carbon Dioxide: An In Situ FTIR Spectroscopic Kinetic Study. <i>ChemCatChem</i> , 2014, 6, 1380-1391.	1.8	4
41	In situ FTIR micro-spectroscopy to investigate polymeric fibers under supercritical carbon dioxide: CO_2 sorption and swelling measurements. <i>Journal of Supercritical Fluids</i> , 2014, 90, 44-52.	1.6	55
42	Theoretical study on the chemical fixation of carbon dioxide with propylene oxide catalyzed by ammonium and guanidinium salts. <i>Catalysis Science and Technology</i> , 2014, 4, 1585.	2.1	106
43	Novel green fatty acid-based bis-cyclic carbonates for the synthesis of isocyanate-free poly(hydroxyurethane amide)s. <i>RSC Advances</i> , 2014, 4, 25795-25803.	1.7	94
44	What is the state of aggregation of ethanol molecules in ethanol-supercritical carbon dioxide mixtures? An FTIR investigation in the full molar fraction range. <i>Journal of Supercritical Fluids</i> , 2014, 94, 65-70.	1.6	11
45	Synthesis of polyurethane particles in supercritical carbon dioxide using organocatalysts or organocatalytic surfactants. <i>Green Chemistry</i> , 2013, 15, 2769.	4.6	6
46	Phase equilibrium of the CO_2 /glycerol system: Experimental data by in situ FT-IR spectroscopy and thermodynamic modeling. <i>Journal of Supercritical Fluids</i> , 2013, 73, 97-107.	1.6	45
47	On the chemical fixation of supercritical carbon dioxide with epoxides catalyzed by ionic salts: an in situ FTIR and Raman study. <i>Catalysis Science and Technology</i> , 2013, 3, 1046.	2.1	62
48	Distinctive Features of Solubility of RAFT/MADIX-Derived Partially Trifluoromethylated Poly(vinyl) Tj ETQq0 0 0 rgBT/Overlock_10 Tf 50 3	2.2	29
49	Enhancement of Poly(vinyl ester) Solubility in Supercritical CO_2 by Partial Fluorination: The Key Role of Polymer-Polymer Interactions. <i>Journal of the American Chemical Society</i> , 2012, 134, 11920-11923.	6.6	51
50	Solubility in CO_2 and swelling studies by in situ IR spectroscopy of vegetable-based epoxidized oils as polyurethane precursors. <i>Polymer Chemistry</i> , 2012, 3, 525-532.	1.9	41
51	In situ FTIR investigation of the solubility and swelling of model epoxides in supercritical CO_2 . <i>Journal of Supercritical Fluids</i> , 2012, 63, 52-58.	1.6	34
52	Influence of macromolecular characteristics of RAFT/MADIX poly(vinyl acetate)-based (co)polymers on their solubility in supercritical carbon dioxide. <i>Polymer Chemistry</i> , 2011, 2, 2222.	1.9	47
53	Reorientation relaxation in supercritical ammonia. <i>Journal of Molecular Liquids</i> , 2011, 159, 31-37.	2.3	6
54	On the interaction between supercritical CO_2 and epoxides combining infrared absorption spectroscopy and quantum chemistry calculations. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 9209.	1.3	15

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55	Assessment of scCO ₂ techniques for surface modification of micro- and nanoparticles: Process design methodology based on solubility. <i>Journal of Supercritical Fluids</i> , 2010, 54, 362-368.	1.6	13
56	Supercritical ammonia: A molecular dynamics simulation and vibrational spectroscopic investigation. <i>Journal of Chemical Physics</i> , 2010, 133, 214505.	1.2	13
57	Investigation of the Local Structure in Sub and Supercritical Ammonia Using the Nearest Neighbor Approach: A Molecular Dynamics Analysis. <i>Journal of Physical Chemistry B</i> , 2010, 114, 15003-15010.	1.2	17
58	Elucidating the Association of Water in Wet 1-Octanol from Normal to High Temperature by Near- and Mid-Infrared Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2010, 114, 9085-9093.	1.2	5
59	Solubility in CO ₂ and carbonation studies of epoxidized fatty acid diesters: towards novel precursors for polyurethane synthesis. <i>Green Chemistry</i> , 2010, 12, 2205.	4.6	143
60	In Situ IR Spectroscopy and Ab Initio Calculations To Study Polymer Swelling by Supercritical CO ₂ . <i>Journal of Physical Chemistry B</i> , 2009, 113, 897-905.	1.2	39
61	Substituent effect on the interaction of aromatic primary amines and diamines with supercritical CO ₂ from infrared spectroscopy and quantum calculations. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 5052.	1.3	17
62	A Combined Spectroscopic and Theoretical Study of Dibutyltin Diacetate and Dilaurate in Supercritical CO ₂ . <i>Journal of Physical Chemistry A</i> , 2008, 112, 8379-8386.	1.1	10
63	On the Perturbation of the Intramolecular H-Bond in Diols by Supercritical CO ₂ : A Theoretical and Spectroscopic Study. <i>Journal of Physical Chemistry A</i> , 2007, 111, 4181-4187.	1.1	30
64	Raman Investigation of the CO ₂ Complex Formation in CO ₂ /Acetone Mixtures. <i>Journal of Physical Chemistry A</i> , 2007, 111, 13371-13379.	1.1	31
65	One-shot synthesis of high molar mass polyurethane in supercritical carbon dioxide. <i>Journal of Polymer Science Part A</i> , 2007, 45, 5649-5661.	2.5	14
66	Density Functional Theory (DFT) Calculations of the Infrared Absorption Spectra of Acetaminophen Complexes Formed with Ethanol and Acetone Species. <i>Journal of Physical Chemistry A</i> , 2006, 110, 8986-9001.	1.1	17
67	Dendritic Core-Shell Macromolecules Soluble in Supercritical Carbon Dioxide. <i>Macromolecules</i> , 2006, 39, 3978-3979.	2.2	21
68	Bringing together fundamental and applied science: The supercritical fluids route. <i>Journal of Molecular Liquids</i> , 2006, 125, 88-99.	2.3	35
69	Vibrational and rotational relaxation of hexafluorobenzene studied by Raman scattering in the supercritical domain. <i>Journal of Molecular Liquids</i> , 2006, 125, 100-106.	2.3	14
70	Solute-solvent interactions governing preferential solvation phenomena of acetaminophen in CO ₂ -expanded organic solutions. <i>Journal of Supercritical Fluids</i> , 2006, 38, 295-305.	1.6	14
71	Synthesis of core-shell polyurethane-polydimethylsiloxane particles in cyclohexane and in supercritical carbon dioxide used as dispersant media: a comparative investigation. <i>Polymer</i> , 2005, 46, 1057-1066.	1.8	36
72	Dynamic of solitary water in hydrophobic solvents. <i>Journal of Molecular Liquids</i> , 2005, 117, 49-61.	2.3	15

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73	Raman spectroscopy of CO ₂ -acetone and CO ₂ -ethanol complexes. <i>Chemical Physics Letters</i> , 2005, 413, 258-262.	1.2	38
74	Synergistic Enhancement of the Solubility of Hexamethylenetetramine in Subcritical CO ₂ -Ethanol Mixtures Studied by Infrared Spectroscopy. <i>ChemPhysChem</i> , 2005, 6, 587-590.	1.0	8
75	Hydrogen bonding in supercritical tert-butanol assessed by vibrational spectroscopies and molecular-dynamics simulations. <i>Journal of Chemical Physics</i> , 2005, 122, 174512.	1.2	47
76	Water-carbon dioxide mixtures at high temperatures and pressures: Local order in the water rich phase investigated by vibrational spectroscopy. <i>Journal of Chemical Physics</i> , 2005, 123, 224501.	1.2	26
77	Ab Initio Investigation of Vibrational Spectra of Water-(CO ₂) _n Complexes (n= 1, 2). <i>Journal of Physical Chemistry A</i> , 2005, 109, 3250-3256.	1.1	48
78	Local density inhomogeneities detected by Raman scattering in supercritical hexafluorobenzene. <i>Pure and Applied Chemistry</i> , 2004, 76, 141-146.	0.9	16
79	A vibrational spectroscopic study of structure evolution of water dissolved in supercritical carbon dioxide under isobaric heating. <i>Journal of Chemical Physics</i> , 2004, 120, 10691-10698.	1.2	33
80	Anionic ring-opening polymerization of ϵ -caprolactone in supercritical carbon dioxide: parameters influencing the reactivity. <i>Journal of Supercritical Fluids</i> , 2004, 28, 249-261.	1.6	34
81	Molecular Insight, through IR Spectroscopy, on Solvating Phenomena Occurring in CO ₂ -Expanded Solutions. <i>ChemPhysChem</i> , 2004, 5, 243-245.	1.0	25
82	CO ₂ -Ethanol Interaction Studied by Vibrational Spectroscopy in Supercritical CO ₂ . <i>Journal of Physical Chemistry A</i> , 2004, 108, 2617-2624.	1.1	85
83	Hydrogen Bonding in Supercritical Ethanol Assessed by Infrared and Raman Spectroscopies. <i>Journal of Physical Chemistry A</i> , 2004, 108, 3902-3909.	1.1	69
84	Supercritical water: Local order and molecular dynamics. <i>Pure and Applied Chemistry</i> , 2004, 76, 133-139.	0.9	18
85	Vibrational Spectra of CO ₂ -Electron Donor-Acceptor Complexes from ab Initio. <i>Journal of Physical Chemistry A</i> , 2002, 106, 11831-11840.	1.1	80
86	Infrared spectroscopic study of hydrogen-bonding in water at high temperature and pressure. <i>Journal of Molecular Liquids</i> , 2002, 101, 149-158.	2.3	86
87	Attempt to explain the changes in solvation of polystyrene in supercritical CO ₂ /ethanol mixtures using infrared and Raman spectroscopy. <i>Journal of Supercritical Fluids</i> , 2001, 19, 199-207.	1.6	37
88	A structural study of the hexafluorobenzene from liquid to supercritical conditions using neutron diffraction and molecular dynamics. <i>Journal of Chemical Physics</i> , 2001, 115, 4239-4248.	1.2	11
89	Structural study of the 1-3-5 trifluorobenzene dimer stability: from liquid to gas densities using supercritical conditions. <i>Chemical Physics Letters</i> , 2000, 325, 163-170.	1.2	8
90	A vibrational spectroscopic study of water confined in benzene from ambient conditions up to high temperature and pressure. <i>Vibrational Spectroscopy</i> , 2000, 24, 15-28.	1.2	14

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91	Dynamics of solitary water in benzene and hexafluorobenzene: An infrared and Raman study. Journal of Chemical Physics, 2000, 113, 3741-3748.	1.2	39
92	Spectroscopic Study of the Polystyrene//CO ₂ /Ethanol System. Industrial & Engineering Chemistry Research, 2000, 39, 4470-4475.	1.8	21
93	Molecular Dynamics of Monomeric Water Dissolved in Very Hydrophobic Solvents: the Current State of the Art of Vibrational Spectroscopy Analyzed from Analytical Model and MD Simulations. Journal of Physical Chemistry A, 2000, 104, 9415-9427.	1.1	46
94	Evolution of the Local Order in 1,3,5-Trifluorobenzene from the Liquid State up to Supercritical Conditions. Journal of Physical Chemistry A, 2000, 104, 10986-10993.	1.1	5
95	A mid infrared study of dynamic processes in iodine-pyridine charge transfer complexes. Chemical Physics, 1998, 226, 71-82.	0.9	9
96	The partial pair correlation functions of dense supercritical water. Europhysics Letters, 1998, 42, 265-270.	0.7	65
97	Vibrational spectroscopic studies of the chemical dynamics in charge transfer complexes of the type iodine-pyridine 1. Experimental results. Molecular Physics, 1997, 92, 271-280.	0.8	8
98	An infrared study of the forbidden symmetric stretching mode of carbon disulphide in binary mixtures with iodine. Molecular Physics, 1997, 90, 265-270.	0.8	0
99	Vibrational spectroscopic studies of the chemical dynamics in charge transfer complexes of the type iodine-pyridine 2. Intermolecular dynamics from far infrared bands. Molecular Physics, 1997, 92, 281-292.	0.8	0
100	The structure of supercritical heavy water as studied by neutron diffraction. Journal of Chemical Physics, 1997, 107, 2942-2949.	1.2	122
101	Ionization Reaction in Iodine/Pyridine Solutions: What Can We Learn from Conductivity Measurements, Far-Infrared Spectroscopy, and Raman Scattering?. Journal of Physical Chemistry A, 1997, 101, 2803-2808.	1.1	65
102	Far IR vibrational spectroscopic studies of the chemical dynamics of the pyridine/iodine system in solution. Chemical Physics Letters, 1997, 267, 496-500.	1.2	7
103	Vibrational spectroscopic studies on the state of aggregation of water in carbon tetrachloride, in dioxane and in the mixed solvents. Journal of Molecular Liquids, 1995, 64, 197-210.	2.3	47
104	A far infrared study of water diluted in hydrophobic solvents. Molecular Physics, 1995, 84, 769-785.	0.8	38
105	A far infrared study of benzene-fluorinated benzene binary mixtures. Chemical Physics, 1994, 184, 225-231.	0.9	35
106	Application of Polymer Swelling by scCO ₂ to the Synthesis of Polymer/Metal Nanocomposites. Solid State Phenomena, 0, 151, 24-29.	0.3	2