Thomas Farmer

List of Publications by Year
in descending order

71 papers	3,879 citations	159525 30 h-index	123376 61 g-index
76 all docs	76 docs citations	76 times ranked	4943 citing authors

#	Article	IF	Citations
1	Tools and techniques for solvent selection: green solvent selection guides. Sustainable Chemical Processes, 2016, 4, .	2.3	837
2	Dihydrolevoglucosenone (Cyrene) as a bio-based alternative for dipolar aprotic solvents. Chemical Communications, 2014, 50, 9650-9652.	2.2	329
3	Circular economy design considerations for research and process development in the chemical sciences. Green Chemistry, 2016, 18, 3914-3934.	4.6	239
4	Bio-derived materials as a green route for precious & critical metal recovery and re-use. Green Chemistry, 2015, 17, 1951-1965.	4.6	220
5	The integration of green chemistry into future biorefineries. Biofuels, Bioproducts and Biorefining, 2009, 3, 72-90.	1.9	199
6	Opportunities for Bio-Based Solvents Created as Petrochemical and Fuel Products Transition towards Renewable Resources. International Journal of Molecular Sciences, 2015, 16, 17101-17159.	1.8	177
7	Synthesis, chemistry, physicochemical properties and industrial applications of amino acid surfactants: A review. Comptes Rendus Chimie, 2018, 21, 112-130.	0.2	126
8	Synthesis of Unsaturated Polyester Resins from Various Bio-Derived Platform Molecules. International Journal of Molecular Sciences, 2015, 16, 14912-14932.	1.8	98
9	Synergistic chemoâ€enzymatic hydrolysis of poly(ethylene terephthalate) from textile waste. Microbial Biotechnology, 2017, 10, 1376-1383.	2.0	85
10	N-Butylpyrrolidinone as a dipolar aprotic solvent for organic synthesis. Green Chemistry, 2016, 18, 3990-3996.	4.6	81
11	A new perspective in bio-refining: levoglucosenone and cleaner lignin from waste biorefinery hydrolysis lignin by selective conversion of residual saccharides. Energy and Environmental Science, 2016, 9, 2571-2574.	15.6	79
12	The potential of microwave technology for the recovery, synthesis and manufacturing of chemicals from bio-wastes. Catalysis Today, 2015, 239, 80-89.	2.2	70
13	Postâ€polymerization modification of bioâ€based polymers: maximizing the high functionality of polymers derived from biomass. Polymer International, 2018, 67, 775-789.	1.6	62
14	Enzymatic synthesis of lignin derivable pyridine based polyesters for the substitution of petroleum derived plastics. Nature Communications, 2019, 10, 1762.	5.8	58
15	Elucidating enzymatic polymerisations: Chain-length selectivity of Candida antarctica lipase B towards various aliphatic diols and dicarboxylic acid diesters. European Polymer Journal, 2018, 106, 79-84.	2.6	55
16	Renewable Selfâ€Blowing Nonâ€Isocyanate Polyurethane Foams from Lysine and Sorbitol. European Journal of Organic Chemistry, 2018, 2018, 4265-4271.	1.2	53
17	2,2,5,5-Tetramethyltetrahydrofuran (TMTHF): a non-polar, non-peroxide forming ether replacement for hazardous hydrocarbon solvents. Green Chemistry, 2017, 19, 3671-3678.	4.6	52
18	Fabrication of PES/PVP Water Filtration Membranes Using CyreneÂ®, a Safer Bio-Based Polar Aprotic Solvent. Advances in Polymer Technology, 2019, 2019, 1-15.	0.8	52

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19	Microwave heating for rapid conversion of sugars and polysaccharides to 5-chloromethyl furfural. Green Chemistry, 2013, 15, 72-75.	4.6	50
20	Safer bio-based solvents to replace toluene and tetrahydrofuran for the biocatalyzed synthesis of polyesters. Green Chemistry, 2019, 21, 1686-1694.	4.6	50
21	Enzymatic synthesis of unsaturated polyesters: functionalization and reversibility of the aza-Michael addition of pendants. Polymer Chemistry, 2019, 10, 843-851.	1.9	46
22	Post-polymerisation modification of bio-derived unsaturated polyester resins via Michael additions of 1,3-dicarbonyls. Polymer Chemistry, 2016, 7, 1650-1658.	1.9	45
23	New bio-based monomers: tuneable polyester properties using branched diols from biomass. Faraday Discussions, 2017, 202, 61-77.	1.6	44
24	Synthesis of Biobased Diethyl Terephthalate via Dielsâ€“Alder Addition of Ethylene to 2,5-Furandicarboxylic Acid Diethyl Ester: An Alternative Route to 100% Biobased Poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 53	3.2	39
25	Intelligent Approach to Solvent Substitution: The Identification of a New Class of Levoglucosenone Derivatives. ChemSusChem, 2016, 9, 3503-3512.	3.6	38
26	Catalyst: Possible Consequences of the N-Methyl Pyrrolidone REACH Restriction. CheM, 2018, 4, 2010-2012.	5.8	37
27	Sustainable Single-Stage Solidâ€“Liquid Extraction of Hesperidin and Rutin from Agro-Products Using Cyrene. ACS Sustainable Chemistry and Engineering, 2020, 8, 18245-18257.	3.2	37
28	Electrochemical Coupling of Biomassâ€Derived Acids: New C₈ Platforms for Renewable Polymers and Fuels. ChemSusChem, 2017, 10, 166-170.	3.6	35
29	Elemental Sustainability and the Importance of Scarce Element Recovery. RSC Green Chemistry, 2013, , 1-28.	0.0	33
30	Recirculation: A New Concept to Drive Innovation in Sustainable Product Design for Bio-Based Products. Molecules, 2017, 22, 48.	1.7	33
31	Insights into postâ€polymerisation modification of bioâ€based unsaturated itaconate and fumarate polyesters via azaâ€michael addition: Understanding the effects of Cï£¾C isomerisation. Journal of Polymer Science Part A, 2018, 56, 1935-1945.	2.5	32
32	Ring opening metathesis polymerisation of a new bio-derived monomer from itaconic anhydride and furfuryl alcohol. Green Chemistry, 2016, 18, 3945-3948.	4.6	28
33	A methodical selection process for the development of ketones and esters as bio-based replacements for traditional hydrocarbon solvents. Green Chemistry, 2018, 20, 4003-4011.	4.6	26
34	The Derivatization of Bioplatform Molecules by using KF/Alumina Catalysis. ChemSusChem, 2009, 2, 1025-1027.	3.6	25
35	Enzymatic synthesis of biobased polyesters utilizing aromatic diols as the rigid component. European Polymer Journal, 2020, 130, 109680.	2.6	24
36	Facile and rapid decarboxylation of glutamic acid to Î³-aminobutyric acid via microwave-assisted reaction: Towards valorisation of waste gluten. Journal of Cleaner Production, 2018, 205, 1102-1113.	4.6	21

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37	Valorization of spruce needle waste via supercritical extraction of waxes and facile isolation of nonacosan-10-ol. Journal of Cleaner Production, 2018, 171, 557-566.	4.6	19
38	Efficient Physisorption of Candida Antarctica Lipase B on Polypropylene Beads and Application for Polyester Synthesis. Catalysts, 2018, 8, 369.	1.6	19
39	Effects of Methyl Branching on the Properties and Performance of Furandioate-Adipate Copolyesters of Bio-Based Secondary Diols. ACS Sustainable Chemistry and Engineering, 2020, 8, 14471-14483.	3.2	18
40	On the Effect of Microwave Energy on Lipase-Catalyzed Polycondensation Reactions. Molecules, 2016, 21, 1245.	1.7	17
41	High-Yield Production of Levulinic Acid from Pretreated Cow Dung in Dilute Acid Aqueous Solution. Molecules, 2017, 22, 285.	1.7	17
42	Mesoporous structured silica â€“ An improved catalyst for direct amide synthesis and its application to continuous flow processing. Arkivoc, 2013, 2012, 282-293.	0.3	15
43	Using metrics and sustainability considerations to evaluate the use of bio-based and non-renewable BrÃ¸nsted acidic ionic liquids to catalyse Fischer esterification reactions. Sustainable Chemical Processes, 2013, 1, .	2.3	14
44	Wholly biomass derivable sustainable polymers by ring-opening metathesis polymerisation of monomers obtained from furfuryl alcohol and itaconic anhydride. Polymer Chemistry, 2017, 8, 3074-3081.	1.9	14
45	Optimization of Amidation Reactions Using Predictive Tools for the Replacement of Regulated Solvents with Safer Biobased Alternatives. ACS Sustainable Chemistry and Engineering, 2018, 6, 1550-1554.	3.2	14
46	Sustainable Galactarateâ€Based Polymers: Multiâ€Enzymatic Production of Pectinâ€Derived Polyesters. Macromolecular Rapid Communications, 2019, 40, e1900361.	2.0	14
47	Thermal Upgrade of Enzymatically Synthesized Aliphatic and Aromatic Oligoesters. Materials, 2020, 13, 368.	1.3	14
48	BioLogicTool: A Simple Visual Tool for Assisting in the Logical Selection of Pathways from Biomass to Products. Industrial & Engineering Chemistry Research, 2019, 58, 15945-15957.	1.8	13
49	Processed Lignin as a Byproduct of the Generation of 5â€(Chloromethyl)furfural from Biomass: A Promising New Mesoporous Material. ChemSusChem, 2015, 8, 4172-4179.	3.6	12
50	A class of surfactants via PEG modification of the oleate moiety of lactonic sophorolipids: synthesis, characterisation and application. Green Chemistry, 2021, 23, 9906-9915.	4.6	12
51	Improving the Post-polymerization Modification of Bio-Based Itaconate Unsaturated Polyesters: Catalyzing Aza-Michael Additions With Reusable Iodine on Acidic Alumina. Frontiers in Chemistry, 2019, 7, 501.	1.8	11
52	Greening the esterification between isosorbide and acetic acid. Sustainable Chemistry and Pharmacy, 2018, 7, 41-49.	1.6	8
53	A comparison of the solvation power of the green solvent 2,2,5,5-tetramethyloxolane versus toluene via partition coefficients. Journal of Cleaner Production, 2019, 240, 118175.	4.6	8
54	Rapid Ringâ€Opening Metathesis Polymerization of Monomers Obtained from Biomassâ€Derived Furfuryl Amines and Maleic Anhydride. ChemSusChem, 2019, 12, 2393-2401.	3.6	8

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55	2,2,5,5-Tetramethyloxolane (TMO) as a Solvent for Buchwaldâ€“Hartwig Aminations. ACS Sustainable Chemistry and Engineering, 2021, 9, 17330-17337.	3.2	8
56	Rapid and efficient biphasic liquid extraction of metals with bio-derived lipophilic Î²-diketone. RSC Advances, 2016, 6, 95789-95792.	1.7	7
57	Rapid â€œhighâ€•temperature batch and flow lithiation-trapping of N-Boc pyrrolidine. Tetrahedron, 2021, 81, 131899.	1.0	7
58	The Autoxidation of Alkenyl Succinimidesâ€”Mimics for Polyisobutenyl Succinimide Dispersants. Industrial & Engineering Chemistry Research, 2019, 58, 19649-19660.	1.8	6
59	Workâ€hardening Photopolymer from Renewable Photoactive 3,3â€™â€(2,5â€Furandiyl)bisacrylic Acid. ChemSusChem, 2020, 13, 4140-4150.	3.6	6
60	A Family of Waterâ€Immiscible, Dipolar Aprotic, Diamide Solvents from Succinic Acid. ChemSusChem, 2020, 13, 3212-3221.	3.6	6
61	Editorial: From Biomass to Advanced Bio-Based Chemicals & Materials: A Multidisciplinary Perspective. Frontiers in Chemistry, 2020, 8, 131.	1.8	6
62	Greenness Assessment and Synthesis for the Bio-Based Production of the Solvent 2,2,5,5-Tetramethyloxolane (TMO). Sustainable Chemistry, 2021, 2, 392-406.	2.2	5
63	Enzyme-catalyzed synthesis of malonate polyesters and their use as metal chelating materials. Green Chemistry, 2021, 23, 5043-5048.	4.6	4
64	Bio-based materials: general discussion. Faraday Discussions, 2017, 202, 121-139.	1.6	3
65	An experimental investigation into the kinetics and mechanism of the aza-Michael additions of dimethyl itaconate. Tetrahedron, 2022, , 132921.	1.0	3
66	Simple and modestly scalable synthesis of. Australian Journal of Chemistry, 2022, 75, 331-344.	0.5	3
67	Modification of bio-based Î²-diketone from wheat straw wax: synthesis of polydentate lipophilic super-chelators for enhanced metal recovery. RSC Advances, 2019, 9, 3542-3549.	1.7	2
68	Chapter 1. Elemental Sustainability for Catalysis. RSC Green Chemistry, 2015, , 1-14.	0.0	2
69	Recent Advances on Enzymatic Catalysis as a Powerful Tool for the Sustainable Synthesis of Bio-Based Polyesters. , 2019, , 555-570.		1
70	Chemo-enzymatic strategies for the synthesis of functional bio-based polyesters. New Biotechnology, 2018, 44, S64.	2.4	0
71	p-Cymenesulphonyl Chloride: A Bio-Based Activating Group and Protecting Group for Greener Organic Synthesis. Journal of the Brazilian Chemical Society, 2015, , .	0.6	0