RafaÅ, Bogel-Åukasik

List of Publications by Year
in descending order

101 papers	7,876 citations	81434 41 h-index	56606 87 g-index
112 all docs	112 docs citations	112 times ranked	8644 citing authors

#	Article	IF	Citations
1	Biodegradable ionic liquids in service of biomass upgrade. Current Opinion in Green and Sustainable Chemistry, 2022, 35, 100609.	3.2	4
2	Development of an ammonia pretreatment that creates synergies between biorefineries and advanced biomass logistics models. Green Chemistry, 2022, 24, 4443-4462.	4.6	10
3	Depolymerization of Lignin from Extracted Solid Waste of Cupressus lusitanica Mill. Biomass Using Imidazole. Waste and Biomass Valorization, 2021, 12, 1341-1355.	1.8	8
4	Valorisation of Agri- and Aquaculture Residues via Biogas Production for Enhanced Industrial Application. Energies, 2021, 14, 2519.	1.6	8
5	Biofuels â€“ Towards Objectives Of 2030 And Beyond. Acta Innovations, 2021, , 32-40.	0.4	4
6	New Circular Challenges in the Development of Take-Away Food Packaging in the COVID-19 Period. Energies, 2021, 14, 4705.	1.6	24
7	New Developments on Ionic Liquid-Tolerant Microorganisms Leading Toward a More Sustainable Biorefinery. , 2021, , 57-79.		0
8	Imidazole Processing of Wheat Straw and Eucalyptus Residuesâ€"Comparison of Pre-Treatment Conditions and Their Influence on Enzymatic Hydrolysis. Molecules, 2021, 26, 7591.	1.7	4
9	Pretreatment of cotton spinning residues for optimal enzymatic hydrolysis: A case study using green solvents. Renewable Energy, 2020, 145, 490-499.	4.3	27
10	Enzymes and biomass pretreatment. , 2020, , 61-100.		5
11	Sustainable approach of high-pressure agave bagasse pretreatment for ethanol production. Renewable Energy, 2020, 155, 1347-1354.	4.3	43
12	Contribution to the production and use of biomass-derived solvents â€“ a review. Acta Innovations, 2020, , 29-56.	0.4	21
13	Economic, social and environmental impacts attained by the use of the effluents generated within a small-scale biorefinery concept. Acta Innovations, 2020, , 57-63.	0.4	14
14	Efficient extraction of vicine from faba beans using reactive system of high-pressure CO2/water. Journal of CO2 Utilization, 2019, 33, 473-477.	3.3	5
15	Development of a Sustainable, Simple, and Robust Method for Efficient l-DOPA Extraction. Molecules, 2019, 24, 2325.	1.7	26
16	The Effect of the Chemical Character of Ionic Liquids on Biomass Pre-Treatment and Posterior Enzymatic Hydrolysis. Molecules, 2019, 24, 808.	1.7	48
17	New two-stage pretreatment for the fractionation of lignocellulosic components using hydrothermal pretreatment followed by imidazole delignification: Focus on the polysaccharide valorization. Bioresource Technology, 2019, 285, 121346.	4.8	41
18	Separation and Recovery of a Hemicelluloseâ€Derived Sugar Produced from the Hydrolysis of Biomass by an Acidic Ionic Liquid. ChemSusChem, 2018, 11, 1099-1107.	3.6	24

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19	CO2â€¯+â€¯Methanolâ€¯+â€¯Glycerol: Multiphase behaviour. Journal of Supercritical Fluids, 2018, 141, 260-264.	1.6	3
20	Insight into the high-pressure CO2 pre-treatment of sugarcane bagasse for a delivery of upgradable sugars. Energy, 2018, 151, 536-544.	4.5	36
21	Hydrothermal alkaline sulfite pretreatment in the delivery of fermentable sugars from sugarcane bagasse. New Journal of Chemistry, 2018, 42, 4474-4484.	1.4	15
22	The green biorefinery concept for the valorisation of pistachio shell by high-pressure CO2/H2O system. Journal of Cleaner Production, 2018, 196, 842-851.	4.6	39
23	Biorefinery approach for lignocellulosic biomass valorisation with an acidic ionic liquid. Green Chemistry, 2018, 20, 4043-4057.	4.6	105
24	Effective Extraction of Lignin from Elephant Grass Using Imidazole and Its Effect on Enzymatic Saccharification To Produce Fermentable Sugars. Industrial & Engineering Chemistry Research, 2017, 56, 5138-5145.	1.8	31
25	High-pressure carbon dioxide/water pre-treatment of sugarcane bagasse and elephant grass: Assessment of the effect of biomass composition on process efficiency. Bioresource Technology, 2017, 224, 639-647.	4.8	66
26	Lignin transformations for high value applications: towards targeted modifications using green chemistry. Green Chemistry, 2017, 19, 4200-4233.	4.6	542
27	Hydrothermal Pretreatment Using Supercritical CO2 in the Biorefinery Context. , 2017, , 353-376.		4
28	Sustainable Catalytic Strategies for C5-Sugars and Biomass Hemicellulose Conversion Towards Furfural Production. Biofuels and Biorefineries, 2017, , 45-80.	0.5	6
29	Direct Hydrolysis of Biomass Polymers using High-pressure CO2 and CO2â€“H2O Mixtures. RSC Green Chemistry, 2017, , 83-114.	0.0	3
30	Extraction and Purification of Phenolic Compounds from Lignocellulosic Biomass Assisted by Ionic Liquid, Polymeric Resins, and Supercritical CO₂. ACS Sustainable Chemistry and Engineering, 2016, 4, 3357-3367.	3.2	81
31	Pre-treatment and extraction techniques for recovery of added value compounds from wastes throughout the agri-food chain. Green Chemistry, 2016, 18, 6160-6204.	4.6	136
32	ABS Constituted by Ionic Liquids and Carbohydrates. Green Chemistry and Sustainable Technology, 2016, , 37-60.	0.4	2
33	N,Nâ€²-Diaryl-perylene-3,9-diamine derivatives: synthesis, characterization and electroluminescence properties. RSC Advances, 2016, 6, 107180-107188.	1.7	8
34	Highly efficient and selective CO₂-adjunctive dehydration of xylose to furfural in aqueous media with THF. Green Chemistry, 2016, 18, 2331-2334.	4.6	50
35	A green and efficient approach to selective conversion of xylose and biomass hemicellulose into furfural in aqueous media using high-pressure CO₂ as a sustainable catalyst. Green Chemistry, 2016, 18, 2985-2994.	4.6	96
36	Imidazole: Prospect Solvent for Lignocellulosic Biomass Fractionation and Delignification. ACS Sustainable Chemistry and Engineering, 2016, 4, 1643-1652.	3.2	117

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37	Current Pretreatment Technologies for the Development of Cellulosic Ethanol and Biorefineries. ChemSusChem, 2015, 8, 3366-3390.	3.6	321
38	Relevance of the acidic 1-butyl-3-methylimidazolium hydrogen sulphate ionic liquid in the selective catalysis of the biomass hemicellulose fraction. RSC Advances, 2015, 5, 47153-47164.	1.7	76
39	Acidic Ionic Liquids as Sustainable Approach of Cellulose and Lignocellulosic Biomass Conversion without Additional Catalysts. ChemSusChem, 2015, 8, 947-965.	3.6	189
40	Nanofiltration and reverse osmosis as a platform for production of natural botanic extracts: The case study of carob by-products. Separation and Purification Technology, 2015, 149, 389-397.	3.9	23
41	Kinetic modeling of hemicellulose-derived biomass hydrolysis under high pressure CO2â€“H2O mixture technology. Journal of Supercritical Fluids, 2015, 99, 95-102.	1.6	39
42	Selective recovery of phenolic compounds and carbohydrates from carob kibbles using water-based extraction. Industrial Crops and Products, 2015, 70, 443-450.	2.5	29
43	Manufacture of furfural in biphasic media made up of an ionic liquid and a co-solvent. Industrial Crops and Products, 2015, 77, 163-166.	2.5	33
44	Simple and Efficient Furfural Production from Xylose in Media Containing 1-Butyl-3-Methylimidazolium Hydrogen Sulfate. Industrial & Engineering Chemistry Research, 2015, 54, 8368-8373.	1.8	69
45	Selective hydrolysis of wheat straw hemicellulose using high-pressure CO₂ as catalyst. RSC Advances, 2015, 5, 73935-73944.	1.7	45
46	Carbon Dioxide in Biomass Processing: Contributions to the Green Biorefinery Concept. Chemical Reviews, 2015, 115, 3-27.	23.0	238
47	Chemical and biological-based isoprene production: Green metrics. Catalysis Today, 2015, 239, 38-43.	2.2	93
48	CHAPTER 5. Relevance of Ionic Liquids and Biomass Feedstocks for Biomolecule Extraction. RSC Green Chemistry, 2015, , 121-167.	0.0	1
49	The phase equilibrium phenomenon in model hydrogenation of oleic acid. Monatshefte FÃ¼r Chemie, 2014, 145, 1555-1560.	0.9	7
50	The CO₂-assisted autohydrolysis of wheat straw. Green Chemistry, 2014, 16, 238-246.	4.6	99
51	Cattle fat valorisation through biofuel production by hydrogenation in supercritical carbon dioxide. RSC Advances, 2014, 4, 32081.	1.7	14
52	Integrated conversion of agroindustrial residue with high pressure CO₂within the biorefinery concept. Green Chemistry, 2014, 16, 4312-4322.	4.6	95
53	Solubility of pharmaceutical compounds in ionic liquids. Fluid Phase Equilibria, 2013, 356, 18-29.	1.4	51
54	Green metrics evaluation of isoprene production by microalgae and bacteria. Green Chemistry, 2013, 15, 2854-2864.	4.6	47

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55	Pre-treatment of lignocellulosic biomass using ionic liquids: Wheat straw fractionation. Bioresource Technology, 2013, 142, 198-208.	4.8	258
56	Pretreatment and Fractionation of Wheat Straw Using Various Ionic Liquids. Journal of Agricultural and Food Chemistry, 2013, 61, 7874-7882.	2.4	85
57	Novel pre-treatment and fractionation method for lignocellulosic biomass using ionic liquids. RSC Advances, 2013, 3, 16040.	1.7	112
58	Green chemistry and the biorefinery concept. Sustainable Chemical Processes, 2013, 1, .	2.3	52
59	Ammonium ionic liquids as green solvents for drugs. Fluid Phase Equilibria, 2013, 338, 209-216.	1.4	70
60	Ionic liquids as a tool for lignocellulosic biomass fractionation. Sustainable Chemical Processes, 2013, 1, .	2.3	192
61	Ionic Liquidsâ€™ Cation and Anion Influence on Aromatic Amine Solubility. Industrial & Engineering Chemistry Research, 2013, 52, 14722-14726.	1.8	14
62	High Pressure Vapour-Liquid Equilibrium of Volatiles in Supercritical Carbon Dioxide. Chemical and Process Engineering - Inzynieria Chemiczna I Procesowa, 2013, 34, 387-392.	0.7	5
63	Solubility Advantage of Pyrazine-2-carboxamide: Application of Alternative Solvents on the Way to the Future Pharmaceutical Development. Journal of Chemical & Engineering Data, 2012, 57, 1525-1533.	1.0	43
64	Intramolecular Câ€“H insertion catalyzed by dirhodium(II) complexes using CO₂as the reaction media. Green Chemistry Letters and Reviews, 2012, 5, 211-240.	2.1	14
65	Deconstruction of the Hemicellulose Fraction from Lignocellulosic Materials into Simple Sugars. , 2012, , 3-37.		13
66	Outlook on the Phase Equilibria of the Innovative System of â€œProtected Glycerolâ€ 1,4-Dioxaspiro[4.5]decane-2-methanol and Alternative Solvents. Journal of Physical Chemistry A, 2012, 116, 1765-1773.	1.1	11
67	Supercritical CO2 as an effective medium for a novel conversion of glycerol and alcohols in the heterogeneous telomerisation of butadiene. Green Chemistry, 2012, 14, 673.	4.6	14
68	A new outlook on solubility of carbohydrates and sugar alcohols in ionic liquids. RSC Advances, 2012, 2, 1846.	1.7	75
69	A favourable solubility of isoniazid, an antitubercular antibiotic drug, in alternative solvents. Fluid Phase Equilibria, 2012, 318, 89-95.	1.4	76
70	The ionic liquid effect on solubility of aniline, a simple aromatic amine: Perspective of solventsâ€™ mixture. Fluid Phase Equilibria, 2012, 325, 105-110.	1.4	9
71	Combination of supercritical carbon dioxide and ionic liquid in a novel assembly of carvacrol. Journal of Supercritical Fluids, 2012, 61, 191-198.	1.6	40
72	Advantageous heterogeneously catalysed hydrogenation of carvone with supercritical carbon dioxide. Green Chemistry, 2011, 13, 2825.	4.6	30

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73	Heterogeneous palladium-catalyzed telomerization of myrcene with glycerol derivatives in supercritical carbon dioxide: a facile route to new building blocks. Green Chemistry, 2011, 13, 2013.	4.6	21
74	Miscibility Phenomena in Systems Containing Polyhydroxy Alcohols and Ionic Liquids. Journal of Chemical & Engineering Data, 2011, 56, 2273-2279.	1.0	25
75	Ionic Liquid-Mediated Formation of 5-Hydroxymethylfurfuralâ€"A Promising Biomass-Derived Building Block. Chemical Reviews, 2011, 111, 397-417.	23.0	732
76	VLE of CO2+glycerol+(ethanol or 1-propanol or 1-butanol). Fluid Phase Equilibria, 2011, 303, 180-183.	1.4	19
77	Isothermal vapourâ€"liquid equilibria in the binary and ternary systems consisting of an ionic liquid, 1-propanol and CO2. Fluid Phase Equilibria, 2010, 293, 168-174.	1.4	38
78	The influence of hydrogen pressure on the heterogeneous hydrogenation of Î²-myrcene in a CO2-expanded liquid. Journal of Supercritical Fluids, 2010, 54, 46-52.	1.6	21
79	Selectivity enhancement in the catalytic heterogeneous hydrogenation of limonene in supercritical carbon dioxide by an ionic liquid. Journal of Supercritical Fluids, 2010, 54, 210-217.	1.6	68
80	Hemicelluloses for fuel ethanol: A review. Bioresource Technology, 2010, 101, 4775-4800.	4.8	1,249
81	The phase envelopes of alternative solvents (ionic liquid, CO2) and building blocks of biomass origin (lactic acid, propionic acid). Fluid Phase Equilibria, 2010, 295, 177-185.	1.4	32
82	Insight into the Phase Equilibrium Phenomena of Systems Containing Dienes and Dicyanamide Ionic Liquids as a New Potential Application. Journal of Physical Chemistry B, 2010, 114, 15605-15609.	1.2	15
83	Solubility of Carbohydrates in Ionic Liquids. Energy & Fuels, 2010, 24, 737-745.	2.5	466
84	Phase equilibrium phenomena in solutions involving tannins, flavonoids and ionic liquids. Green Chemistry, 2010, 12, 1947.	4.6	50
85	Liquidâ^'Liquid Equilibrium of Mixtures of Imidazolium-Based Ionic Liquids with Propanediols or Glycerol. Industrial & Engineering Chemistry Research, 2010, 49, 4850-4857.	1.8	55
86	Pt- and Pd-catalysed limonene hydrogenation in high-density carbon dioxide. Monatshefte FÃ¼r Chemie, 2009, 140, 1361-1369.	0.9	28
87	Vapourâ€"liquid equilibrium for Î²-myrcene and carbon dioxide and/or hydrogen and the volume expansion of Î²-myrcene or limonene in CO2 at 323.15K. Fluid Phase Equilibria, 2009, 282, 25-30.	1.4	20
88	Effect of Flow Rate of a Biphasic Reaction Mixture on Limonene Hydrogenation in High Pressure CO2. Industrial & Engineering Chemistry Research, 2009, 48, 7060-7064.	1.8	29
89	Study on selectivity of Î²-myrcene hydrogenation in high-pressure carbon dioxide catalysed by noble metal catalysts. Green Chemistry, 2009, 11, 1847.	4.6	34
90	Limonene hydrogenation in high-pressure CO2: Effect of hydrogen pressure. Journal of Supercritical Fluids, 2008, 45, 225-230.	1.6	35

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91	Lipase catalysed mono and di-acylation of secondary alcohols with succinic anhydride in organic media and ionic liquids. Green Chemistry, 2008, 10, 243-248.	4.6	39
92	Distribution Ratios of Lipase-Catalyzed Reaction Products in Ionic Liquid Supercritical CO₂ Systems: Resolution of 2-Octanol Enantiomers. Industrial & Engineering Chemistry Research, 2008, 47, 4473-4480.	1.8	52
93	Phase equilibrium-driven selective hydrogenation of limonene in high-pressure carbon dioxide. Green Chemistry, 2007, 9, 427-430.	4.6	49
94	Sustainable Processes Employing Ionic Liquids for Secondary Alcohols Separation. Monatshefte FÃ¼r Chemie, 2007, 138, 1137-1144.	0.9	17
95	Thermodynamic Properties of Mixtures Containing Ionic Liquids. 7. Activity Coefficients of Aliphatic and Aromatic Esters and Benzylamine in 1-Methyl-3-ethylimidazolium Bis(trifluoromethylsulfonyl) Imide Using the Transpiration Method. Journal of Chemical & Engineering Data, 2006, 51, 213-218.	1.0	46
96	Solubility of ethyl-(2-hydroxyethyl)-dimethylammonium bromide in alcohols (C2â€“C12). Fluid Phase Equilibria, 2005, 233, 220-227.	1.4	41
97	Physicochemical Properties and Solubility of Alkyl-(2-hydroxyethyl)-dimethylammonium Bromide. Journal of Physical Chemistry B, 2005, 109, 12124-12132.	1.2	145
98	Thermodynamic Properties of Mixtures Containing Ionic Liquids. Activity Coefficients of Ethers and Alcohols in 1-Methyl-3-Ethyl-Imidazolium Bis(Trifluoromethyl-sulfonyl) Imide Using the Transpiration Method. Journal of Chemical & Engineering Data, 2005, 50, 142-148.	1.0	75
99	1-Octanol/Water Partition Coefficients of 1Alkyl-3-methylimidazolium Chloride. Chemistry - A European Journal, 2003, 9, 3033-3041.	1.7	140
100	Solubility of 1-Dodecyl-3-methylimidazolium Chloride in Alcohols (C2âˆ’C12)â€. Journal of Physical Chemistry B, 2003, 107, 1858-1863.	1.2	93
101	Chapter 9. Perspectives of the Development of High-pressure Technologies in Biomass Processing. RSC Green Chemistry, 0, , 181-189.	0.0	0