

# RafaÅ, Bogel-Åukasik

## List of Publications by Year in descending order

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101  
papers

7,876  
citations

71102

41  
h-index

49909

87  
g-index

112  
all docs

112  
docs citations

112  
times ranked

7794  
citing authors

#	ARTICLE	IF	CITATIONS
1	Biodegradable ionic liquids in service of biomass upgrade. <i>Current Opinion in Green and Sustainable Chemistry</i> , 2022, 35, 100609.	5.9	4
2	Development of an ammonia pretreatment that creates synergies between biorefineries and advanced biomass logistics models. <i>Green Chemistry</i> , 2022, 24, 4443-4462.	9.0	10
3	Depolymerization of Lignin from Extracted Solid Waste of <i>Cupressus lusitanica</i> Mill. Biomass Using Imidazole. <i>Waste and Biomass Valorization</i> , 2021, 12, 1341-1355.	3.4	8
4	Valorisation of Agri- and Aquaculture Residues via Biogas Production for Enhanced Industrial Application. <i>Energies</i> , 2021, 14, 2519.	3.1	8
5	Biofuels – Towards Objectives Of 2030 And Beyond. <i>Acta Innovations</i> , 2021, , 32-40.	1.0	4
6	New Circular Challenges in the Development of Take-Away Food Packaging in the COVID-19 Period. <i>Energies</i> , 2021, 14, 4705.	3.1	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 Residues – Comparison of Pre-Treatment Conditions and Their Influence on Enzymatic Hydrolysis. <i>Molecules</i> , 2021, 26, 7591.	3.8	4
9	Pretreatment of cotton spinning residues for optimal enzymatic hydrolysis: A case study using green solvents. <i>Renewable Energy</i> , 2020, 145, 490-499.	8.9	27
10	Enzymes and biomass pretreatment. , 2020, , 61-100.		5
11	Sustainable approach of high-pressure agave bagasse pretreatment for ethanol production. <i>Renewable Energy</i> , 2020, 155, 1347-1354.	8.9	43
12	Contribution to the production and use of biomass-derived solvents – a review. <i>Acta Innovations</i> , 2020, , 29-56.	1.0	21
13	Economic, social and environmental impacts attained by the use of the effluents generated within a small-scale biorefinery concept. <i>Acta Innovations</i> , 2020, , 57-63.	1.0	14
14	Efficient extraction of vicine from faba beans using reactive system of high-pressure CO <sub>2</sub> /water. <i>Journal of CO<sub>2</sub> Utilization</i> , 2019, 33, 473-477.	6.8	5
15	Development of a Sustainable, Simple, and Robust Method for Efficient L-DOPA Extraction. <i>Molecules</i> , 2019, 24, 2325.	3.8	26
16	The Effect of the Chemical Character of Ionic Liquids on Biomass Pre-Treatment and Posterior Enzymatic Hydrolysis. <i>Molecules</i> , 2019, 24, 808.	3.8	48
17	New two-stage pretreatment for the fractionation of lignocellulosic components using hydrothermal pretreatment followed by imidazole delignification: Focus on the polysaccharide valorization. <i>Bioresource Technology</i> , 2019, 285, 121346.	9.6	41
18	Separation and Recovery of a Hemicellulose-Derived Sugar Produced from the Hydrolysis of Biomass by an Acidic Ionic Liquid. <i>ChemSusChem</i> , 2018, 11, 1099-1107.	6.8	24

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19	CO <sub>2</sub> +Methanol+Glycerol: Multiphase behaviour. Journal of Supercritical Fluids, 2018, 141, 260-264.	3.2	3
20	Insight into the high-pressure CO <sub>2</sub> pre-treatment of sugarcane bagasse for a delivery of upgradable sugars. Energy, 2018, 151, 536-544.	8.8	36
21	Hydrothermal alkaline sulfite pretreatment in the delivery of fermentable sugars from sugarcane bagasse. New Journal of Chemistry, 2018, 42, 4474-4484.	2.8	15
22	The green biorefinery concept for the valorisation of pistachio shell by high-pressure CO <sub>2</sub> /H <sub>2</sub> O system. Journal of Cleaner Production, 2018, 196, 842-851.	9.3	39
23	Biorefinery approach for lignocellulosic biomass valorisation with an acidic ionic liquid. Green Chemistry, 2018, 20, 4043-4057.	9.0	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.	3.7	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.	9.6	66
26	Lignin transformations for high value applications: towards targeted modifications using green chemistry. Green Chemistry, 2017, 19, 4200-4233.	9.0	542
27	Hydrothermal Pretreatment Using Supercritical CO <sub>2</sub> 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 CO <sub>2</sub> and CO <sub>2</sub> +H <sub>2</sub> O Mixtures. RSC Green Chemistry, 2017, , 83-114.	0.1	3
30	Extraction and Purification of Phenolic Compounds from Lignocellulosic Biomass Assisted by Ionic Liquid, Polymeric Resins, and Supercritical CO <sub>2</sub> . ACS Sustainable Chemistry and Engineering, 2016, 4, 3357-3367.	6.7	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.	9.0	136
32	ABS Constituted by Ionic Liquids and Carbohydrates. Green Chemistry and Sustainable Technology, 2016, , 37-60.	0.7	2
33	N,N'-Diaryl-perylene-3,9-diamine derivatives: synthesis, characterization and electroluminescence properties. RSC Advances, 2016, 6, 107180-107188.	3.6	8
34	Highly efficient and selective CO <sub>2</sub> -adjunctive dehydration of xylose to furfural in aqueous media with THF. Green Chemistry, 2016, 18, 2331-2334.	9.0	50
35	A green and efficient approach to selective conversion of xylose and biomass hemicellulose into furfural in aqueous media using high-pressure CO <sub>2</sub> as a sustainable catalyst. Green Chemistry, 2016, 18, 2985-2994.	9.0	96
36	Imidazole: Prospect Solvent for Lignocellulosic Biomass Fractionation and Delignification. ACS Sustainable Chemistry and Engineering, 2016, 4, 1643-1652.	6.7	117

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37	Current Pretreatment Technologies for the Development of Cellulosic Ethanol and Biorefineries. <i>ChemSusChem</i> , 2015, 8, 3366-3390.	6.8	321
38	Relevance of the acidic 1-butyl-3-methylimidazolium hydrogen sulphate ionic liquid in the selective catalysis of the biomass hemicellulose fraction. <i>RSC Advances</i> , 2015, 5, 47153-47164.	3.6	76
39	Acidic Ionic Liquids as Sustainable Approach of Cellulose and Lignocellulosic Biomass Conversion without Additional Catalysts. <i>ChemSusChem</i> , 2015, 8, 947-965.	6.8	189
40	Nanofiltration and reverse osmosis as a platform for production of natural botanic extracts: The case study of carob by-products. <i>Separation and Purification Technology</i> , 2015, 149, 389-397.	7.9	23
41	Kinetic modeling of hemicellulose-derived biomass hydrolysis under high pressure CO <sub>2</sub> -H <sub>2</sub> O mixture technology. <i>Journal of Supercritical Fluids</i> , 2015, 99, 95-102.	3.2	39
42	Selective recovery of phenolic compounds and carbohydrates from carob kibbles using water-based extraction. <i>Industrial Crops and Products</i> , 2015, 70, 443-450.	5.2	29
43	Manufacture of furfural in biphasic media made up of an ionic liquid and a co-solvent. <i>Industrial Crops and Products</i> , 2015, 77, 163-166.	5.2	33
44	Simple and Efficient Furfural Production from Xylose in Media Containing 1-Butyl-3-Methylimidazolium Hydrogen Sulfate. <i>Industrial &amp; Engineering Chemistry Research</i> , 2015, 54, 8368-8373.	3.7	69
45	Selective hydrolysis of wheat straw hemicellulose using high-pressure CO <sub>2</sub> as catalyst. <i>RSC Advances</i> , 2015, 5, 73935-73944.	3.6	45
46	Carbon Dioxide in Biomass Processing: Contributions to the Green Biorefinery Concept. <i>Chemical Reviews</i> , 2015, 115, 3-27.	47.7	238
47	Chemical and biological-based isoprene production: Green metrics. <i>Catalysis Today</i> , 2015, 239, 38-43.	4.4	93
48	CHAPTER 5. Relevance of Ionic Liquids and Biomass Feedstocks for Biomolecule Extraction. <i>RSC Green Chemistry</i> , 2015, , 121-167.	0.1	1
49	The phase equilibrium phenomenon in model hydrogenation of oleic acid. <i>Monatshefte für Chemie</i> , 2014, 145, 1555-1560.	1.8	7
50	The CO <sub>2</sub> -assisted autohydrolysis of wheat straw. <i>Green Chemistry</i> , 2014, 16, 238-246.	9.0	99
51	Cattle fat valorisation through biofuel production by hydrogenation in supercritical carbon dioxide. <i>RSC Advances</i> , 2014, 4, 32081.	3.6	14
52	Integrated conversion of agroindustrial residue with high pressure CO <sub>2</sub> within the biorefinery concept. <i>Green Chemistry</i> , 2014, 16, 4312-4322.	9.0	95
53	Solubility of pharmaceutical compounds in ionic liquids. <i>Fluid Phase Equilibria</i> , 2013, 356, 18-29.	2.5	51
54	Green metrics evaluation of isoprene production by microalgae and bacteria. <i>Green Chemistry</i> , 2013, 15, 2854-2864.	9.0	47

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55	Pre-treatment of lignocellulosic biomass using ionic liquids: Wheat straw fractionation. <i>Bioresource Technology</i> , 2013, 142, 198-208.	9.6	258
56	Pretreatment and Fractionation of Wheat Straw Using Various Ionic Liquids. <i>Journal of Agricultural and Food Chemistry</i> , 2013, 61, 7874-7882.	5.2	85
57	Novel pre-treatment and fractionation method for lignocellulosic biomass using ionic liquids. <i>RSC Advances</i> , 2013, 3, 16040.	3.6	112
58	Green chemistry and the biorefinery concept. <i>Sustainable Chemical Processes</i> , 2013, 1, .	2.3	52
59	Ammonium ionic liquids as green solvents for drugs. <i>Fluid Phase Equilibria</i> , 2013, 338, 209-216.	2.5	70
60	Ionic liquids as a tool for lignocellulosic biomass fractionation. <i>Sustainable Chemical Processes</i> , 2013, 1, .	2.3	192
61	Ionic Liquidsâ€™ Cation and Anion Influence on Aromatic Amine Solubility. <i>Industrial &amp; Engineering Chemistry Research</i> , 2013, 52, 14722-14726.	3.7	14
62	High Pressure Vapour-Liquid Equilibrium of Volatiles in Supercritical Carbon Dioxide. <i>Chemical and Process Engineering - Inzynieria Chemiczna I Procesowa</i> , 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. <i>Journal of Chemical &amp; Engineering Data</i> , 2012, 57, 1525-1533.	1.9	43
64	Intramolecular C-H insertion catalyzed by dirhodium(II) complexes using CO <sub>2</sub> as the reaction media. <i>Green Chemistry Letters and Reviews</i> , 2012, 5, 211-240.	4.7	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. <i>Journal of Physical Chemistry A</i> , 2012, 116, 1765-1773.	2.5	11
67	Supercritical CO <sub>2</sub> as an effective medium for a novel conversion of glycerol and alcohols in the heterogeneous telomerisation of butadiene. <i>Green Chemistry</i> , 2012, 14, 673.	9.0	14
68	A new outlook on solubility of carbohydrates and sugar alcohols in ionic liquids. <i>RSC Advances</i> , 2012, 2, 1846.	3.6	75
69	A favourable solubility of isoniazid, an antitubercular antibiotic drug, in alternative solvents. <i>Fluid Phase Equilibria</i> , 2012, 318, 89-95.	2.5	76
70	The ionic liquid effect on solubility of aniline, a simple aromatic amine: Perspective of solventsâ€™ mixture. <i>Fluid Phase Equilibria</i> , 2012, 325, 105-110.	2.5	9
71	Combination of supercritical carbon dioxide and ionic liquid in a novel assembly of carvacrol. <i>Journal of Supercritical Fluids</i> , 2012, 61, 191-198.	3.2	40
72	Advantageous heterogeneously catalysed hydrogenation of carvone with supercritical carbon dioxide. <i>Green Chemistry</i> , 2011, 13, 2825.	9.0	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. <i>Green Chemistry</i> , 2011, 13, 2013.	9.0	21
74	Miscibility Phenomena in Systems Containing Polyhydroxy Alcohols and Ionic Liquids. <i>Journal of Chemical &amp; Engineering Data</i> , 2011, 56, 2273-2279.	1.9	25
75	Ionic Liquid-Mediated Formation of 5-Hydroxymethylfurfural—A Promising Biomass-Derived Building Block. <i>Chemical Reviews</i> , 2011, 111, 397-417.	47.7	732
76	VLE of CO <sub>2</sub> +glycerol+(ethanol or 1-propanol or 1-butanol). <i>Fluid Phase Equilibria</i> , 2011, 303, 180-183.	2.5	19
77	Isothermal vapour—liquid equilibria in the binary and ternary systems consisting of an ionic liquid, 1-propanol and CO <sub>2</sub> . <i>Fluid Phase Equilibria</i> , 2010, 293, 168-174.	2.5	38
78	The influence of hydrogen pressure on the heterogeneous hydrogenation of Î <sup>2</sup> -myrcene in a CO <sub>2</sub> -expanded liquid. <i>Journal of Supercritical Fluids</i> , 2010, 54, 46-52.	3.2	21
79	Selectivity enhancement in the catalytic heterogeneous hydrogenation of limonene in supercritical carbon dioxide by an ionic liquid. <i>Journal of Supercritical Fluids</i> , 2010, 54, 210-217.	3.2	68
80	Hemicelluloses for fuel ethanol: A review. <i>Bioresource Technology</i> , 2010, 101, 4775-4800.	9.6	1,249
81	The phase envelopes of alternative solvents (ionic liquid, CO <sub>2</sub> ) and building blocks of biomass origin (lactic acid, propionic acid). <i>Fluid Phase Equilibria</i> , 2010, 295, 177-185.	2.5	32
82	Insight into the Phase Equilibrium Phenomena of Systems Containing Dienes and Dicyanamide Ionic Liquids as a New Potential Application. <i>Journal of Physical Chemistry B</i> , 2010, 114, 15605-15609.	2.6	15
83	Solubility of Carbohydrates in Ionic Liquids. <i>Energy &amp; Fuels</i> , 2010, 24, 737-745.	5.1	466
84	Phase equilibrium phenomena in solutions involving tannins, flavonoids and ionic liquids. <i>Green Chemistry</i> , 2010, 12, 1947.	9.0	50
85	Liquid—Liquid Equilibrium of Mixtures of Imidazolium-Based Ionic Liquids with Propanediols or Glycerol. <i>Industrial &amp; Engineering Chemistry Research</i> , 2010, 49, 4850-4857.	3.7	55
86	Pt- and Pd-catalysed limonene hydrogenation in high-density carbon dioxide. <i>Monatshefte für Chemie</i> , 2009, 140, 1361-1369.	1.8	28
87	Vapour—liquid equilibrium for Î <sup>2</sup> -myrcene and carbon dioxide and/or hydrogen and the volume expansion of Î <sup>2</sup> -myrcene or limonene in CO <sub>2</sub> at 323.15K. <i>Fluid Phase Equilibria</i> , 2009, 282, 25-30.	2.5	20
88	Effect of Flow Rate of a Biphasic Reaction Mixture on Limonene Hydrogenation in High Pressure CO <sub>2</sub> . <i>Industrial &amp; Engineering Chemistry Research</i> , 2009, 48, 7060-7064.	3.7	29
89	Study on selectivity of Î <sup>2</sup> -myrcene hydrogenation in high-pressure carbon dioxide catalysed by noble metal catalysts. <i>Green Chemistry</i> , 2009, 11, 1847.	9.0	34
90	Limonene hydrogenation in high-pressure CO <sub>2</sub> : Effect of hydrogen pressure. <i>Journal of Supercritical Fluids</i> , 2008, 45, 225-230.	3.2	35

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91	Lipase catalysed mono and di-acylation of secondary alcohols with succinic anhydride in organic media and ionic liquids. <i>Green Chemistry</i> , 2008, 10, 243-248.	9.0	39
92	Distribution Ratios of Lipase-Catalyzed Reaction Products in Ionic Liquid Supercritical CO <sub>2</sub> Systems: Resolution of 2-Octanol Enantiomers. <i>Industrial &amp; Engineering Chemistry Research</i> , 2008, 47, 4473-4480.	3.7	52
93	Phase equilibrium-driven selective hydrogenation of limonene in high-pressure carbon dioxide. <i>Green Chemistry</i> , 2007, 9, 427-430.	9.0	49
94	Sustainable Processes Employing Ionic Liquids for Secondary Alcohols Separation. <i>Monatshefte für Chemie</i> , 2007, 138, 1137-1144.	1.8	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. <i>Journal of Chemical &amp; Engineering Data</i> , 2006, 51, 213-218.	1.9	46
96	Solubility of ethyl-(2-hydroxyethyl)-dimethylammonium bromide in alcohols (C <sub>2</sub> –C <sub>12</sub> ). <i>Fluid Phase Equilibria</i> , 2005, 233, 220-227.	2.5	41
97	Physicochemical Properties and Solubility of Alkyl-(2-hydroxyethyl)-dimethylammonium Bromide. <i>Journal of Physical Chemistry B</i> , 2005, 109, 12124-12132.	2.6	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. <i>Journal of Chemical &amp; Engineering Data</i> , 2005, 50, 142-148.	1.9	75
99	1-Octanol/Water Partition Coefficients of 1-Alkyl-3-methylimidazolium Chloride. <i>Chemistry - A European Journal</i> , 2003, 9, 3033-3041.	3.3	140
100	Solubility of 1-Dodecyl-3-methylimidazolium Chloride in Alcohols (C <sub>2</sub> –C <sub>12</sub> ). <i>Journal of Physical Chemistry B</i> , 2003, 107, 1858-1863.	2.6	93
101	Chapter 9. Perspectives of the Development of High-pressure Technologies in Biomass Processing. <i>RSC Green Chemistry</i> , 0, , 181-189.	0.1	0