

Tomáš Jirout

List of Publications by Year in descending order

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48
papers

526
citations

1040056

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h-index

677142

22
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48
all docs

48
docs citations

48
times ranked

728
citing authors

#	ARTICLE	IF	CITATIONS
1	Biomass Size Reduction Machines for Enhancing Biogas Production. <i>Chemical Engineering and Technology</i> , 2011, 34, 391-399.	1.5	209
2	Effect of Organic Solvents on Microalgae Growth, Metabolism and Industrial Bioproduct Extraction: A Review. <i>International Journal of Molecular Sciences</i> , 2017, 18, 1429.	4.1	72
3	Impeller design for mixing of suspensions. <i>Chemical Engineering Research and Design</i> , 2011, 89, 1144-1151.	5.6	36
4	Lab-scale Technology for Biogas Production from Lignocellulose Wastes. <i>Acta Polytechnica</i> , 2012, 52, .	0.6	18
5	The effect of process parameters during the thermal-expansive pretreatment of wheat straw on hydrolysate quality and on biogas yield. <i>Renewable Energy</i> , 2015, 77, 250-258.	8.9	18
6	Assessment of hydrodynamics based on Computational Fluid Dynamics to optimize the operation of hybrid tubular photobioreactors. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 105768.	6.7	16
7	The Influence of Hydrodynamic Changes in a System with a Pitched Blade Turbine on Mixing Power. <i>Processes</i> , 2021, 9, 68.	2.8	14
8	Large eddy simulation of a pitched blade impeller mixed vessel – Comparison with LDA measurements. <i>Chemical Engineering Research and Design</i> , 2016, 108, 42-48.	5.6	12
9	Effect of hydrodynamics on the formation and removal of microalgal biofilm in photobioreactors. <i>Biosystems Engineering</i> , 2020, 200, 315-327.	4.3	10
10	The relation between the rate of erosion wear of a pitched blade impeller and its process characteristics. <i>Chemical Engineering Research and Design</i> , 2011, 89, 1929-1937.	5.6	9
11	Analysis of heat transfer in a vessel with helical pipe coil and multistage impeller. <i>Canadian Journal of Chemical Engineering</i> , 2014, 92, 2115-2121.	1.7	8
12	A study on blending characteristics of axial flow impellers. <i>Chemical and Process Engineering - Inżynieria Chemiczna I Procesowa</i> , 2011, 32, .	0.7	7
13	APPLICATION OF THE TEMPERATURE OSCILLATION METHOD IN HEAT TRANSFER MEASUREMENTS AT THE WALL OF AN AGITATED VESSEL. <i>Acta Polytechnica</i> , 2018, 58, 144.	0.6	7
14	Application of Theoretical and Experimental Findings for Optimization of Mixing Processes and Equipment. <i>Processes</i> , 2020, 8, 955.	2.8	7
15	Effect of Impeller Shape on Solid Particle Suspension. <i>Chemical and Process Engineering - Inżynieria Chemiczna I Procesowa</i> , 2013, 34, 139-152.	0.7	6
16	Energy-Economic Analysis of Thermal-Expansive Pretreatment for Its Implementation at a Biogas Plant. <i>Chemical Engineering and Technology</i> , 2016, 39, 2284-2292.	1.5	6
17	Change in Mixing Power of a Two-PBT Impeller When Emptying a Tank. <i>Processes</i> , 2021, 9, 341.	2.8	6
18	Components of wall shear rate in wavy Taylor-Couette flow. <i>Experimental Thermal and Fluid Science</i> , 2011, 35, 1304-1312.	2.7	5

#	ARTICLE	IF	CITATIONS
19	Pumping Capacity of Pitched Blade Multi-Stage Impellers. Chemical and Process Engineering - Inzynieria Chemiczna I Procesowa, 2014, 35, 47-53.	0.7	5
20	Heat transfer similarities between impinging jets and axial-flow impellers. Theoretical Foundations of Chemical Engineering, 2016, 50, 937-944.	0.7	5
21	Heat transfer in a jacketed agitated vessel equipped with multistage impellers. Chemical Papers, 2015, 69, .	2.2	4
22	A practical method for predicting the friction factor of power-law fluids in a rectangular duct. Chemical Engineering Communications, 2019, 206, 1310-1316.	2.6	4
23	Biogas Plant Upgrade to CO ₂ Free Technology: A Techno-Economic Case Study. Chemical Engineering and Technology, 2020, 43, 1981-1993.	1.5	4
24	A Study of CFD Simulations of the Flow Pattern in an Agitated System with a Pitched Blade Worn Turbine. Chemical and Process Engineering - Inzynieria Chemiczna I Procesowa, 2013, 34, 39-49.	0.7	3
25	BLENDING CHARACTERISTICS OF HIGH-SPEED ROTARY IMPELLERS. Chemical and Process Engineering - Inzynieria Chemiczna I Procesowa, 2013, 34, 427-434.	0.7	3
26	Energy-Efficient Size Reduction Technology for Wet Fibrous Biomass Treatment in Industrial Biofuel Technologies. Chemical Engineering and Technology, 2014, 37, 1713-1720.	1.5	3
27	Friction factor of shear thinning fluids in non-circular ducts—a simplified approach for rapid engineering calculation. Chemical Engineering Communications, 2021, 208, 1209-1217.	2.6	3
28	MECHANICAL DISINTEGRATION OF WHEAT STRAW BY ROLLER-PLATE GRIND SYSTEM WITH SHARP-EDGED SEGMENTS. Acta Polytechnica, 2015, 55, 113-122.	0.6	3
29	Mixing system for highly concentrated fine-grained suspensions. Polish Journal of Chemical Technology, 2009, 11, 52-56.	0.5	3
30	Diversity of Biogas Plant Realizations. Chemical Engineering and Technology, 2019, 42, 370-380.	1.5	2
31	Scale-Up of Mixing Equipment for Suspensions. Processes, 2020, 8, 909.	2.8	2
32	Heat Transfer at the Bottom of a Cylindrical Vessel Impinged by a Swirling Flow from an Impeller in a Draft Tube. Chemical and Biochemical Engineering Quarterly, 2017, 31, 343-352.	0.9	2
33	A method for the determination of shear viscosity of power-law fluids in a rectangular duct and concentric annulus. Asia-Pacific Journal of Chemical Engineering, 2022, 17, e2727.	1.5	2
34	Efficiency of PBT Impellers with Different Blade Cross-Sections. Energies, 2022, 15, 585.	3.1	2
35	Analysis of the Dispersion of Viscoelastic Clusters in the Industrial Rotor-Stator Equipment. Processes, 2021, 9, 2232.	2.8	2
36	CFD SIMULATION OF A STIRRED DISHED BOTTOM VESSEL. Acta Polytechnica, 2013, 53, 906-912.	0.6	1

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37	Effect of rapid batch decompression on hydrolysate quality after hydrothermal pretreatment of wheat straw. Chemical Papers, 2015, 69, .	2.2	1
38	Heat transfer measurements with TOIRT method. EPJ Web of Conferences, 2017, 143, 02113.	0.3	1
39	Investigation of mechanical properties of viscoelastic clusters of particles. AIP Conference Proceedings, 2019, , .	0.4	1
40	Analysis of Power Input of an In-Line Rotor-Stator Mixer for Viscoplastic Fluids. Processes, 2020, 8, 916.	2.8	1
41	A novel contactless transient method for measuring local values of heat transfer coefficient. Heat and Mass Transfer, 2021, 57, 1025-1038.	2.1	1
42	An investigation of the elastic properties of viscoelastic clusters of particles: A comparison between two methods. Polymer Engineering and Science, 2021, 61, 1440-1448.	3.1	1
43	Wpływ modyfikacji mieszadła z łamanymi łopatkami na efektywność mieszania. Przemysł Chemiczny, 2017, 1, 182-186.	0.0	1
44	IMPROVING SPECIFIC POWER CONSUMPTION FOR MECHANICAL MIXING OF THE FEEDSTOCK IN A BIOGAS FERMENTER BY MECHANICAL DISINTEGRATION OF LIGNOCELLULOSE BIOMASS. Acta Polytechnica, 2014, 54, 325-332.	0.6	0
45	Liquid circulation in a stirred system with an axial flow impeller and a cylindrical draft tube. AIP Conference Proceedings, 2017, , .	0.4	0
46	Mixing of a viscoplastic fluid in an in-line mixer. AIP Conference Proceedings, 2019, , .	0.4	0
47	Effect of rotation direction of helical-ribbon agitator on circulation of high viscous batch. AIP Conference Proceedings, 2019, , .	0.4	0
48	The Influence of Mixing Method and Mixing Parameters in Process of Preparation of Anti-static Coating Materials Containing Nanoparticles. Lecture Notes in Mechanical Engineering, 2019, , 582-590.	0.4	0