Rafal M Rakoczy

List of Publications by Year in Descending Order

85 papers	834 citations	18 h-index	24 g-index
90 ext. papers	1,098 ext. citations	4.3 avg, IF	4.65 L-index

#	Paper	IF	Citations
85	The cellulose fibers functionalized with star-like zinc oxide nanoparticles with boosted antibacterial performance for hygienic products.. *Scientific Reports*, **2022**, 12, 1321	4.9	3
84	Evaluation of ferrofluid-coated rotating magnetic field-assisted bioreactor for biomass production. *Chemical Engineering Journal*, **2022**, 431, 133913	14.7	3
83	Application of Magnetically Assisted Reactors for Modulation of Growth and Pyocyanin Production by .. *Frontiers in Bioengineering and Biotechnology*, **2022**, 10, 795871	5.8	1
82	Rotating Magnetic Field-Assisted Reactor Enhances Mechanisms of Phage Adsorption on Bacterial Cell Surface. *Current Issues in Molecular Biology*, **2022**, 44, 1316-1325	2.9	1
81	Intensification of bacterial cellulose production process with sequential electromagnetic field exposure aided by dynamic modelling. *Biochemical Engineering Journal*, **2022**, 182, 108432	4.2	0
80	Preparation of Inoculum for Bacterial Cellulose Biosynthesis Using Magnetically Assisted External-Loop Airlift Bioreactor. *Polymers*, **2021**, 13,	4.5	1
79	Modulation of Cellular Response to Different Parameters of the Rotating Magnetic Field (RMF)-An In Vitro Wound Healing Study. *International Journal of Molecular Sciences*, **2021**, 22,	6.3	1
78	Heat transfer investigations in a liquid that is mixed by means of a multi-ribbon mixer. *Polish Journal of Chemical Technology*, **2021**, 23, 66-72	1	
77	Biofilms in the gravity sewer interfaces: making a friend from a foe. *Reviews in Environmental Science and Biotechnology*, **2021**, 20, 795-813	13.9	0
76	Bacterial Cellulose Membrane Containing L. Extract as a Promising Material for the Topical Delivery of Antioxidants to the Skin. *International Journal of Molecular Sciences*, **2021**, 22,	6.3	3
75	Transdermal Delivery Systems for Ibuprofen and Ibuprofen Modified with Amino Acids Alkyl Esters Based on Bacterial Cellulose. *International Journal of Molecular Sciences*, **2021**, 22,	6.3	7
74	Fabrication of Paper Sheets Coatings Based on Chitosan/Bacterial Nanocellulose/ZnO with Enhanced Antibacterial and Mechanical Properties. *International Journal of Molecular Sciences*, **2021** , 22,	6.3	3
73	Environmental Phage-Based Cocktail and Antibiotic Combination Effects on Biofilm in a Human Urine Model. *Microbial Drug Resistance*, **2021**, 27, 25-35	2.9	30
72	Effect of rotating magnetic field on ferromagnetic structures used in hyperthermia. *Journal of Magnetism and Magnetic Materials*, **2021**, 518, 167418	2.8	4
71	Exposure to non-continuous rotating magnetic field induces metabolic strain-specific response of Komagataeibacter xylinus. *Biochemical Engineering Journal*, **2021**, 166, 107855	4.2	7
70	Mathematical Modeling of Hydrodynamics in Bioreactor by Means of CFD-Based Compartment Model. *Processes*, **2020**, 8, 1301	2.9	2
69	Hydrodynamics and Mass Transfer Analysis in BioFlow Bioreactor Systems. *Processes*, **2020**, 8, 1311	2.9	4

68	Single Mathematical Parameter for Evaluation of the MicroorganismsVGrowth as the Objective Function in the Optimization by the DOE Techniques. *Microorganisms*, **2020**, 8,	4.9	4
67	PhageScore: A simple method for comparative evaluation of bacteriophages lytic activity. *Biochemical Engineering Journal*, **2020**, 161, 107652	4.2	4
66	Studies of neutralization reaction induced by rotating magnetic field. *Chemical Papers*, **2020**, 74, 3517-3526	2.9	
65	Antibiotics Act with vB_AbaP_AGC01 Phage against in Human Heat-Inactivated Plasma Blood and Models. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	23
64	Study on the Effect of Rotating Magnetic Field on Cellular Response of Mammalian Cells **2020**, 132-143		
63	Methods of Bacteriophages Production with Application of Alternate Magnetic Field **2020**, 171-182		1
62	Application of Rotating Magnetic Field to Intensify the Processes in Airlift Reactor **2020**, 282-293		
61	Few Layered Oxidized h-BN as Nanofiller of Cellulose-Based Paper with Superior Antibacterial Response and Enhanced Mechanical/Thermal Performance. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	4
60	Hydrodynamic studies in magnetically assisted external-loop airlift reactor. *Chemical Engineering Journal*, **2019**, 362, 298-309	14.7	10
59	The influence of rotating magnetic field on bio-catalytic dye degradation using the horseradish peroxidase. *Biochemical Engineering Journal*, **2019**, 147, 81-88	4.2	12
58	Functionalized Magnetic Bacterial Cellulose Beads as Carrier for Lecitase Ultra Immobilization. *Applied Biochemistry and Biotechnology*, **2019**, 187, 176-193	3.2	10
57	The analysis of rotating magnetic field as a trigger of Gram-positive and Gram-negative bacteria growth. *Biochemical Engineering Journal*, **2019**, 141, 259-267	4.2	13
56	The effect of rotating magnetic field on bioethanol production by yeast strain modified by ferrimagnetic nanoparticles. *Journal of Magnetism and Magnetic Materials*, **2019**, 473, 176-183	2.8	16
55	The Influence of Rotating Magnetic Field on Biochemical Processing. *Lecture Notes on Multidisciplinary Industrial Engineering*, **2018**, 67-83	0.3	
54	The Characterization of the Residence Time Distribution in a Fluid Mixer by Means of the Information Entropy. *Lecture Notes on Multidisciplinary Industrial Engineering*, **2018**, 201-216	0.3	1
53	Application of Rotating Magnetic Fields Increase the Activity of Antimicrobials Against Wound Biofilm Pathogens. *Scientific Reports*, **2018**, 8, 167	4.9	10
52	Purification and recovery of laccase produced by submerged cultures of Trametes versicolor by three-phase partitioning as a simple and highly efficient technique. *Polish Journal of Chemical Technology*, **2018**, 20, 88-95	1	4
51	The application of magnetically modified bacterial cellulose for immobilization of laccase. *International Journal of Biological Macromolecules*, **2018**, 108, 462-470	7.9	39

50	Gas to liquid mass transfer in mixing system with application of rotating magnetic field. *Chemical Engineering and Processing: Process Intensification*, **2018**, 130, 11-18	3.7	5
49	Evaluation of usefulness of 2DCorr technique in assessing physicochemical properties of bacterial cellulose. *Carbohydrate Polymers*, **2017**, 161, 208-218	10.3	11
48	Enhancing effect of 50 Hz rotating magnetic field on induction of Shiga toxin-converting lambdoid prophages. *Microbial Pathogenesis*, **2017**, 109, 4-7	3.8	12
47	The covalent and non-covalent conjugation of graphene oxide with hydroxycamptothecin in hyperthermia for its anticancer activity. *Journal of Alloys and Compounds*, **2017**, 709, 112-124	5.7	7
46	The study of influence of a rotating magnetic field on mixing efficiency. *Chemical Engineering and Processing: Process Intensification*, **2017**, 112, 1-8	3.7	14
45	Biochemical and cellular properties of Gluconacetobacter xylinus cultures exposed to different modes of rotating magnetic field. *Polish Journal of Chemical Technology*, **2017**, 19, 107-114	1	7
44	Effects of a rotating magnetic field on gas-liquid mass transfer coefficient. *Chemical Engineering Journal*, **2017**, 327, 608-617	14.7	19
43	Increased water content in bacterial cellulose synthesized under rotating magnetic fields. *Electromagnetic Biology and Medicine*, **2017**, 36, 192-201	2.2	19
42	Influence of rotating magnetic field on gas-liquid volumetric mass transfer coefficient. *Chemical and Process Engineering - Inzynieria Chemiczna I Procesowa*, **2017**, 38, 423-432		2
41	Investigation of mixing time in liquid under influence of rotating magnetic field. *Chemical and Process Engineering - Inzynieria Chemiczna I Procesowa*, **2017**, 38, 555-565		1
40	Increased yield and selected properties of bacterial cellulose exposed to different modes of a rotating magnetic field. *Engineering in Life Sciences*, **2016**, 16, 483-493	3.4	8
39	The influence of a ferrofluid in the presence of an external rotating magnetic field on the growth rate and cell metabolic activity of a wine yeast strain. *Biochemical Engineering Journal*, **2016**, 109, 43-50	4.2	21
38	Effect of GO-Fe3O4 and rotating magnetic field on cellular metabolic activity of mammalian cells. *Journal of Biomaterials Applications*, **2016**, 30, 1392-406	2.9	8
37	Survival of probiotic lactic acid bacteria immobilized in different forms of bacterial cellulose in simulated gastric juices and bile salt solution. *LWT - Food Science and Technology*, **2016**, 68, 322-328	5.4	40
36	The Effect of Rotating Magnetic Field on Enterotoxin Genes Expression in Staphylococcus Aureus Strains. *Journal of Magnetics*, **2016**, 21, 141-147	1.9	1
35	Time Dependent Influence of Rotating Magnetic Field on Bacterial Cellulose. *International Journal of Polymer Science*, **2016**, 2016, 1-13	2.4	8
34	Correlations for mixing energy in processes using Rushton turbine mixer *Chemical Papers*, **2016**, 70,	1.9	3
33	Effect of Gluconacetobacter xylinus cultivation conditions on the selected properties of bacterial cellulose. *Polish Journal of Chemical Technology*, **2016**, 18, 117-123	1	4

32	Wet and Dry Forms of Bacterial Cellulose Synthetized by Different Strains of Gluconacetobacter xylinus as Carriers for Yeast Immobilization. *Applied Biochemistry and Biotechnology*, **2016**, 180, 805-816	3.2	18
31	Modification of bacterial cellulose through exposure to the rotating magnetic field. *Carbohydrate Polymers*, **2015**, 133, 52-60	10.3	36
30	Computational Fluid Dynamics and Experimental Studies of a New Mixing Element in a Static Mixer as a Heat Exchanger. *Chemical and Process Engineering - Inzynieria Chemiczna I Procesowa*, **2015**, 36, 59-72		6
29	Effects of rotating magnetic field exposure on the functional parameters of different species of bacteria. *Electromagnetic Biology and Medicine*, **2015**, 34, 48-55	2.2	13
28	The characterization of the residence time distribution in a magnetic mixer by means of the information entropy. *Chemical Engineering Science*, **2014**, 105, 191-197	4.4	10
27	Effects of 50 Hz rotating magnetic field on the viability of Escherichia coli and Staphylococcus aureus. *Electromagnetic Biology and Medicine*, **2014**, 33, 29-34	2.2	17
26	Chemical and magnetic functionalization of graphene oxide as a route to enhance its biocompatibility. *Nanoscale Research Letters*, **2014**, 9, 656	5	61
25	Mixing energy investigations in a liquid vessel that is mixed by using a rotating magnetic field. *Chemical Engineering and Processing: Process Intensification*, **2013**, 66, 1-11	3.7	19
24	Study of Mixing Time in a Liquid Vessel with Rotating and Reciprocating Agitator. *Industrial & Engineering Chemistry Research*, **2013**, 52, 13818-13828	3.9	10
23	Experimental study and mathematical modeling of the residence time distribution in magnetic mixer. *Polish Journal of Chemical Technology*, **2013**, 15, 53-60	1	2
22	The Effects of Rotating Magnetic Field on Growth Rate, Cell Metabolic Activity and Biofilm Formation by Staphylococcus Aureus and Escherichia Coli. *Journal of Magnetics*, **2013**, 18, 289-296	1.9	19
21	Study of effect of temperature gradient on solid dissolution process under action of transverse rotating magnetic field. *AICHE Journal*, **2012**, 58, 1030-1039	3.6	2
20	Experimental study of temperature gradient on solid dissolution process exposed to transverse rotating magnetic field. *Journal of Physics: Conference Series*, **2012**, 395, 012163	0.3	
19	The effects of power characteristics on the heat transfer process in various types of motionless mixing devices. *Chemical Engineering and Processing: Process Intensification*, **2011**, 50, 959-969	3.7	8
18	Studies of a mixing process induced by a transverse rotating magnetic field. *Chemical Engineering Science*, **2011**, 66, 2298-2308	4.4	25
17	Influence of transverse rotating magnetic field on enhancement of solid dissolution process. *AICHE Journal*, **2010**, 56, 1416-1433	3.6	22
16	The application of the informational theory to the analysis of the grinding process under action of transverse rotating magnetic field. *Powder Technology*, **2010**, 201, 161-170	5.2	5
15	Enhancement of solid dissolution process under the influence of rotating magnetic field. *Chemical Engineering and Processing: Process Intensification*, **2010**, 49, 42-50	3.7	20

14	Following of polymerization process of polyurethane spinning solutions in dimethylformamide by means of the power consumption. *Chemical Engineering and Processing: Process Intensification*, **2009** , 48, 538-548	3.7	
13	Experimental study of bubble size distribution in a liquid column exposed to a rotating magnetic field. *Chemical Engineering and Processing: Process Intensification*, **2009**, 48, 1229-1240	3.7	42
12	Informational analysis of the grinding process of granular material using a multi-ribbon blender. *Chemical Papers*, **2009**, 63,	1.9	1
11	The development of an artificial neural network correlation for prediction of rotating magnetic field effects on the process of production of disperse systems Fe3O4liquid. *Computational Materials Science*, **2009**, 47, 460-465	3.2	1
10	The expression and intranuclear distribution of nucleolin in HL-60 and K-562 cells after repeated, short-term exposition to rotating magnetic fields. *International Journal of Radiation Biology*, **2008**, 84, 752-60	2.9	8
9	Statistical description of influence of biogenic compounds on process reduction of organic substance from municipal sewage in functioning treatment plant. *Biochemical Engineering Journal*, **2008**, 40, 79-91	4.2	
8	Kinetic equation of grinding process in mixing of granular material using probability density functions, transient operators and informational entropy. *Chemical Engineering and Processing: Process Intensification*, **2008**, 47, 200-208	3.7	6
7	Comparison density of maximal energy for mixing process using the same agitator in rotational and reciprocating movements. *Chemical Engineering and Processing: Process Intensification*, **2008**, 47, 1252-1260	3.7	15
6	Entropy criterion of random states for granular material in a mixing process. *Chemical Papers*, **2008**, 62,	1.9	3
5	Power consumption, mixing time, heat and mass transfer measurements for liquid vessels that are mixed using reciprocating multiplates agitators. *Chemical Engineering and Processing: Process Intensification*, **2007**, 46, 89-98	3.7	29
4	Application of the information theory to the description of the phosphorus compounds reduction at a sewage treatment plant. *Chemical Engineering Journal*, **2007**, 131, 283-292	14.7	3
3	The entropy criterion for the homogenisation process in a multi-ribbon blender. *Chemical Engineering and Processing: Process Intensification*, **2006**, 45, 500-506	3.7	19
2	Basic physiology of Pseudomonas aeruginosa contacted with carbon nanocomposites. *Applied Nanoscience (Switzerland)*,1	3.3	0
1	The influence of nanomaterials on pyocyanin production by Pseudomonas aeruginosa. *Applied Nanoscience (Switzerland)*,1	3.3	1