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List of Publications by Year
in descending order

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76 papers	2,532 citations	236833 25 h-index	206029 48 g-index
78 all docs	78 docs citations	78 times ranked	3327 citing authors

#	Article	IF	Citations
1	Magnetic particles for the separation and purification of nucleic acids. Applied Microbiology and Biotechnology, 2006, 73, 495-504.	1.7	447
2	Development and trends of biosurfactant analysis and purification using rhamnolipids as an example. Analytical and Bioanalytical Chemistry, 2008, 391, 1579-1590.	1.9	158
3	Oxidation of magnetite nanoparticles: impact on surface and crystal properties. CrystEngComm, 2017, 19, 246-255.	1.3	148
4	Nature of Interactions of Amino Acids with Bare Magnetite Nanoparticles. Journal of Physical Chemistry C, 2015, 119, 23032-23041.	1.5	139
5	Influencing factors in the CO-precipitation process of superparamagnetic iron oxide nano particles: A model based study. Journal of Magnetism and Magnetic Materials, 2015, 377, 81-89.	1.0	126
6	An optimized purification process for porcine gastric mucin with preservation of its native functional properties. RSC Advances, 2016, 6, 44932-44943.	1.7	88
7	Bio-nano interactions: binding proteins, polysaccharides, lipids and nucleic acids onto magnetic nanoparticles. Biomaterials Research, 2021, 25, 12.	3.2	71
8	High-gradient magnetic separation for technical scale protein recovery using low cost magnetic nanoparticles. Separation and Purification Technology, 2015, 150, 29-36.	3.9	70
9	Controlled Synthesis of Magnetic Iron Oxide Nanoparticles: Magnetite or Maghemite?. Crystals, 2020, 10, 214.	1.0	59
10	Bare Iron Oxide Nanoparticles for Magnetic Harvesting of Microalgae: From Interaction Behavior to Process Realization. Nanomaterials, 2018, 8, 292.	1.9	56
11	Magnetic One-Step Purification of His-Tagged Protein by Bare Iron Oxide Nanoparticles. ACS Omega, 2019, 4, 3790-3799.	1.6	54
12	Magnetic Separation in Bioprocessing Beyond the Analytical Scale: From Biotechnology to the Food Industry. Frontiers in Bioengineering and Biotechnology, 2019, 7, 233.	2.0	53
13	Continuous rhamnolipid production with integrated product removal by foam fractionation and magnetic separation of immobilized Pseudomonas aeruginosa. Biotechnology Progress, 2011, 27, 706-716.	1.3	52
14	Cloning of the pelA gene from Bacillus licheniformis 14A and biochemical characterization of recombinant, thermostable, high-alkaline pectate lyase. Applied Microbiology and Biotechnology, 2004, 64, 560-567.	1.7	49
15	Immobilization of Cellulase on Magnetic Nanocarriers. ChemistryOpen, 2016, 5, 183-187.	0.9	45
16	Design of Interactions Between Nanomaterials and Proteins: A Highly Affine Peptide Tag to Bare Iron Oxide Nanoparticles for Magnetic Protein Separation. Biotechnology Journal, 2019, 14, 1800055.	1.8	45
17	Formation of iron oxide nanoparticles for the photooxidation of water: Alteration of finite size effects from ferrihydrite to hematite. Scientific Reports, 2017, 7, 12609.	1.6	44
18	Bio-nano interactions: cellulase on iron oxide nanoparticle surfaces. Adsorption, 2017, 23, 281-292.	1.4	43

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19	Separation of isomaltose from high sugar concentrated enzyme reaction mixture by dealuminated Î²-zeolite. Separation and Purification Technology, 2004, 38, 129-138.	3.9	40
20	Peptide binding to metal oxide nanoparticles. Faraday Discussions, 2017, 204, 233-250.	1.6	38
21	Immobilization of PETase enzymes on magnetic iron oxide nanoparticles for the decomposition of microplastic PET. Nanoscale Advances, 2021, 3, 4395-4399.	2.2	34
22	Direct capture of lactoferrin from whey using magnetic micro-ion exchangers in combination with high-gradient magnetic separation. Reactive and Functional Polymers, 2007, 67, 1577-1588.	2.0	33
23	Design of immobilised dextransucrase for fluidised bed application. Journal of Biotechnology, 2004, 114, 255-267.	1.9	30
24	Improving the binding capacities of protein A chromatographic materials by means of ligand polymerization. Journal of Chromatography A, 2014, 1347, 80-86.	1.8	30
25	Immunomagnetic Separation of Microorganisms with Iron Oxide Nanoparticles. Chemosensors, 2020, 8, 17.	1.8	29
26	Experimental characterization and simulation of amino acid and peptide interactions with inorganic materials. Engineering in Life Sciences, 2018, 18, 84-100.	2.0	26
27	Development and validation of an RP-HPLC DAD method for the simultaneous quantification of minor and major whey proteins. Food Chemistry, 2021, 342, 128176.	4.2	26
28	Bare Iron Oxide Nanoparticles as Drug Delivery Carrier for the Short Cationic Peptide Lasioglossin. Pharmaceuticals, 2021, 14, 405.	1.7	26
29	Oleate coating of iron oxide nanoparticles in aqueous systems: the role of temperature and surfactant concentration. Journal of Nanoparticle Research, 2016, 18, 1.	0.8	25
30	Binding patterns of homo-peptides on bare magnetic nanoparticles: insights into environmental dependence. Scientific Reports, 2017, 7, 14047.	1.6	25
31	Impact of Nanoparticle Aggregation on Protein Recovery through a Pentadentate Chelate Ligand on Magnetic Carriers. ACS Applied Materials & Interfaces, 2014, 6, 13607-13616.	4.0	24
32	Semiconducting Polymer Interfaces for Electrochemically Assisted Mercury Remediation. ACS Applied Materials & Interfaces, 2020, 12, 49713-49722.	4.0	22
33	Expression, One-Step Purification, and Immobilization of HaloTagTM Fusion Proteins on Chloroalkane-Functionalized Magnetic Beads. Applied Biochemistry and Biotechnology, 2010, 162, 2098-2110.	1.4	21
34	Magnetic Separation of Antibodies with High Binding Capacity by Site-Directed Immobilization of Protein A-Domains to Bare Iron Oxide Nanoparticles. ACS Applied Nano Materials, 2021, 4, 4956-4963.	2.4	19
35	Production, Purification, and Characterization ofThermoanaerobacterium thermosaccharolyticum Glucoamylase. Starch/Staerke, 2002, 54, 328-337.	1.1	15
36	Isomaltose formation by free and immobilized dextransucrase. Biocatalysis and Biotransformation, 2006, 24, 280-290.	1.1	15

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37	Improved extracellular expression and purification of recombinant Staphylococcus aureus protein A. Protein Expression and Purification, 2014, 93, 87-92.	0.6	15
38	Membrane-assisted extraction of monoterpenes: from in silico solvent screening towards biotechnological process application. Royal Society Open Science, 2018, 5, 172004.	1.1	15
39	Selective eneâ€reductase immobilization to magnetic nanoparticles through a novel affinity tag. Biotechnology Journal, 2021, 16, e2000366.	1.8	15
40	Adsorption of organic molecules on carbon surfaces: Experimental data and molecular dynamics simulation considering multiple protonation states. Journal of Colloid and Interface Science, 2021, 589, 424-437.	5.0	15
41	A Highâ€Gradient Magnetic Separator for Highly Viscous Process Liquors in Industrial Biotechnology. Chemical Engineering and Technology, 2016, 39, 469-476.	0.9	14
42	Solid liquid liquid extraction of porcine gastric mucins from homogenized animal material. RSC Advances, 2017, 7, 39708-39717.	1.7	14
43	DNA Binding to the Silica: Cooperative Adsorption in Action. Langmuir, 2021, 37, 5902-5908.	1.6	14
44	Magnetic Recovery of Cellulase from Cellulose Substrates with Bare Iron Oxide Nanoparticles. ChemNanoMat, 2019, 5, 422-426.	1.5	13
45	Buffer Influence on the Amino Acid Silica Interaction. ChemPhysChem, 2020, 21, 2347-2356.	1.0	13
46	Carbon nanotubes-A resin for electrochemically modulated liquid chromatography. Journal of Separation Science, 2017, 40, 1176-1183.	1.3	12
47	Magnetophoretic Velocity Determined by Space- and Time-Resolved Extinction Profiles. IEEE Magnetics Letters, 2015, 6, 1-4.	0.6	11
48	Seeking Innovative Affinity Approaches: A Performance Comparison between Magnetic Nanoparticle Agglomerates and Chromatography Resins for Antibody Recovery. ACS Applied Materials & Interfaces, 2020, 12, 39967-39978.	4.0	11
49	Visualization of USPIO-labeled melt-electrowritten scaffolds by non-invasive magnetic resonance imaging. Biomaterials Science, 2021, 9, 4607-4612.	2.6	11
50	Current practices with commercial scale bovine lactoferrin production and alternative approaches. International Dairy Journal, 2022, 126, 105263.	1.5	11
51	A fluorescence polarization assay for the experimental validation of anin silicomodel of the chemokine CXCL8 binding to receptor-derived peptides. Physical Chemistry Chemical Physics, 2014, 16, 8036-8043.	1.3	9
52	A Carbon Nanotube Packed Bed Electrode for Small Molecule Electrosorption: An Electrochemical and Chromatographic Approach for Process Description. Applied Sciences (Switzerland), 2020, 10, 1133.	1.3	9
53	Influence of different magnetites on properties of magnetic Pseudomonas aeruginosa immobilizates used for biosurfactant production. Biotechnology Progress, 2009, 25, 1620-1629.	1.3	7
54	Protein A affinity precipitation of human immunoglobulin G. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2014, 965, 72-78.	1.2	7

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55	Non-chromatographic preparative purification of enhanced green fluorescent protein. Journal of Biotechnology, 2015, 194, 84-90.	1.9	7
56	Purification of a peptide tagged protein via an affinity chromatographic process with underivatized silica. Engineering in Life Sciences, 2021, 21, 549-557.	2.0	7
57	Integrated Enzymatic Synthesis and Adsorption of Isomaltose in a Multiphase Fluidized Bed Reactor. Engineering in Life Sciences, 2006, 6, 481-487.	2.0	6
58	One-Step Purification of Microbially Produced Hydrophobic Terpenes via Process Chromatography. Frontiers in Bioengineering and Biotechnology, 2019, 7, 185.	2.0	6
59	Anaplerotic Pathways in Halomonas elongata: The Role of the Sodium Gradient. Frontiers in Microbiology, 2020, 11, 561800.	1.5	6
60	Insights on Alanine and Arginine Binding to Silica with Atomic Resolution. Journal of Physical Chemistry Letters, 2021, 12, 9384-9390.	2.1	6
61	The electrosorptive response of a carbon nanotube flow-through electrode in aqueous systems. Chemical Engineering Journal, 2022, 428, 131009.	6.6	6
62	Direct capture and selective elution of a secreted polyglutamateâ€tagged nanobody using bare magnetic nanoparticles. Biotechnology Journal, 2022, 17, e2100577.	1.8	6
63	Potential-Controlled Tensiometry: A Tool for Understanding Wetting and Surface Properties of Conductive Powders by Electroimbibition. Analytical Chemistry, 2018, 90, 14131-14136.	3.2	5
64	Rational Design of Iron Oxide Binding Peptide Tags. Langmuir, 2019, 35, 8472-8481.	1.6	5
65	Selective release of overexpressed recombinant proteins from E.Âcoli cells facilitates one-step chromatographic purification of peptide-tagged green fluorescent protein variants. Protein Expression and Purification, 2018, 152, 155-160.	0.6	4
66	In vivo labeling and specific magnetic bead separation of RNA for biofilm characterization and stress-induced gene expression analysis in bacteria. Journal of Microbiological Methods, 2009, 79, 344-352.	0.7	3
67	Detection of targeted bacteria species on filtration membranes. Analyst, The, 2021, 146, 3549-3556.	1.7	3
68	Iron Oxide Nanoparticles: Multiwall Carbon Nanotube Composite Materials for Batch or Chromatographic Biomolecule Separation. Nanoscale Research Letters, 2021, 16, 30.	3.1	3
69	Design of 3D Carbon Nanotube Monoliths for Potential-Controlled Adsorption. Applied Sciences (Switzerland), 2021, 11, 9390.	1.3	3
70	Natural magnetite ore as a harvesting agent for saline microalgae Microchloropsis salina. Bioresource Technology Reports, 2021, 15, 100798.	1.5	2
71	Integrierte Produktion und Separation von Biotensiden im Mehrphasenreaktor. Chemie-Ingenieur-Technik, 2010, 82, 111-115.	0.4	1
72	Crystal Structure and Spectroscopic Analysis of the Compatible Solute NÎ³-Acetyl-L-2,4-Diaminobutyric Acid. Crystals, 2020, 10, 1136.	1.0	1

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73	Potential-Controlled Chromatography on Carbon Nanotubes for Biomolecule Separation. Chemie-Ingenieur-Technik, 2016, 88, 1256-1256.	0.4	0
74	Magnetic Separation: Prospects for Downstream Processing. Chemie-Ingenieur-Technik, 2018, 90, 1213-1213.	0.4	0
75	Downstream process development for a small molecule from saline microbial fermentation. Chemie-Ingenieur-Technik, 2020, 92, 1239-1239.	0.4	0
76	Downstream processing of bioproducts. Engineering in Life Sciences, 2021, 21, 548-548.	2.0	0