Johannes Felix Buyel

List of Publications by Year
in descending order

70	2,117	236925 25	254184 43
papers	citations	h-index	g-index

75	75	75	1360
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Plants as sources of natural and recombinant anti-cancer agents. Biotechnology Advances, 2018, 36, 506-520.	11.7	151
2	Very-large-scale production of antibodies in plants: The biologization of manufacturing. Biotechnology Advances, 2017, 35, 458-465.	11.7	131
3	Extraction and downstream processing of plant-derived recombinant proteins. Biotechnology Advances, 2015, 33, 902-913.	11.7	125
4	Molecular farming â€“ The slope of enlightenment. Biotechnology Advances, 2020, 40, 107519.	11.7	116
5	Predictive models for transient protein expression in tobacco (Nicotiana tabacum L.) can optimize process time, yield, and downstream costs. Biotechnology and Bioengineering, 2012, 109, 2575-2588.	3.3	115
6	Commercial Aspects of Pharmaceutical Protein Production in Plants. Current Pharmaceutical Design, 2013, 19, 5471-5477.	1.9	114
7	Plant Molecular Farming â€“ Integration and Exploitation of Side Streams to Achieve Sustainable Biomanufacturing. Frontiers in Plant Science, 2018, 9, 1893.	3.6	94
8	Scaleâ€down models to optimize a filter train for the downstream purification of recombinant pharmaceutical proteins produced in tobacco leaves. Biotechnology Journal, 2014, 9, 415-425.	3.5	62
9	Flocculation increases the efficacy of depth filtration during the downstream processing of recombinant pharmaceutical proteins produced in tobacco. Plant Biotechnology Journal, 2014, 12, 240-252.	8.3	54
10	Rational design of a host cell protein heat precipitation step simplifies the subsequent purification of recombinant proteins from tobacco. Biochemical Engineering Journal, 2014, 88, 162-170.	3.6	51
11	The Emergency Response Capacity of Plant-Based Biopharmaceutical Manufacturing-What It Is and What It Could Be. Frontiers in Plant Science, 2020, 11, 594019.	3.6	48
12	Downstream processing of biopharmaceutical proteins produced in plants. Bioengineered, 2014, 5, 138-142.	3.2	46
13	The use of quantitative structureâ€“activity relationship models to develop optimized processes for the removal of tobacco host cell proteins during biopharmaceutical production. Journal of Chromatography A, 2013, 1322, 18-28.	3.7	45
14	Contributions of the international plant science community to the fight against human infectious diseases â€“ part 1: epidemic and pandemic diseases. Plant Biotechnology Journal, 2021, 19, 1901-1920.	8.3	44
15	Process Development Strategies in Plant Molecular Farming. Current Pharmaceutical Biotechnology, 2015, 16, 966-982.	1.6	41
16	On the verge of the market â€“ Plant factories for the automated and standardized production of biopharmaceuticals. Biotechnology Advances, 2021, 46, 107681.	11.7	40
17	Plant cell packs: a scalable platform for recombinant protein production and metabolic engineering. Plant Biotechnology Journal, 2019, 17, 1560-1566.	8.3	39
18	Comparison of microbial and transient expression (tobacco plants and plantâ€cell packs) for the production and purification of the anticancer mistletoe lectin viscumin. Biotechnology and Bioengineering, 2019, 116, 2236-2249.	3.3	37

#	Article	IF	Citations
19	Generic chromatographyâ€based purification strategies accelerate the development of downstream processes for biopharmaceutical proteins produced in plants. Biotechnology Journal, 2014, 9, 566-577.	3.5	35
20	Predictive models for the accumulation of a fluorescent marker protein in tobacco leaves according to the promoter/5â€²UTR combination. Biotechnology and Bioengineering, 2013, 110, 471-482.	3.3	34
21	Optimized Blanching Reduces the Host Cell Protein Content and Substantially Enhances the Recovery and Stability of Two Plant-Derived Malaria Vaccine Candidates. Frontiers in Plant Science, 2016, 7, 159.	3.6	33
22	Extraction, purification and characterization of the plant-produced HPV16 subunit vaccine candidate E7 GGG. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2012, 880, 19-26.	2.3	31
23	Contributions of the international plant science community to the fight against infectious diseases in humansâ€”part 2: Affordable drugs in edible plants for endemic and reâ€emerging diseases. Plant Biotechnology Journal, 2021, 19, 1921-1936.	8.3	31
24	Targeted genome editing of plants and plant cells for biomanufacturing. Transgenic Research, 2021, 30, 401-426.	2.4	29
25	Celluloseâ€based filter aids increase the capacity of depth filters during the downstream processing of plantâ€derived biopharmaceutical proteins. Biotechnology Journal, 2015, 10, 584-591.	3.5	28
26	A juice extractor can simplify the downstream processing of plant-derived biopharmaceutical proteins compared to blade-based homogenizers. Process Biochemistry, 2015, 50, 859-866.	3.7	27
27	Robot Cookies â€“ Plant Cell Packs as an Automated High-Throughput Screening Platform Based on Transient Expression. Frontiers in Bioengineering and Biotechnology, 2020, 8, 393.	4.1	27
28	Animal componentâ€free Agrobacterium tumefaciens cultivation media for better GMPâ€compliance increases biomass yield and pharmaceutical protein expression in Nicotiana benthamiana. Biotechnology Journal, 2017, 12, 1600721.	3.5	25
29	A Combined Ultrafiltration/Diafiltration Step Facilitates the Purification of Cyanovirin-N From Transgenic Tobacco Extracts. Frontiers in Bioengineering and Biotechnology, 2018, 6, 206.	4.1	25
30	Seasonal Weather Changes Affect the Yield and Quality of Recombinant Proteins Produced in Transgenic Tobacco Plants in a Greenhouse Setting. Frontiers in Plant Science, 2019, 10, 1245.	3.6	24
31	Downstream processing of a plant-derived malaria transmission-blocking vaccine candidate. Protein Expression and Purification, 2018, 152, 122-130.	1.3	22
32	Processing heterogeneous biomass: Overcoming the hurdles in model building. Bioengineered, 2013, 4, 21-24.	3.2	20
33	Depth Filters Containing Diatomite Achieve More Efficient Particle Retention than Filters Solely Containing Cellulose Fibers. Frontiers in Plant Science, 2015, 6, 1134.	3.6	20
34	Polyclonal antibodies for specific detection of tobacco host cell proteins can be efficiently generated following RuBisCO depletion and the removal of endotoxins. Biotechnology Journal, 2016, 11, 507-518.	3.5	20
35	Determination of the thermal properties of leaves by non-invasive contactâ€free laser probing. Journal of Biotechnology, 2016, 217, 100-108.	3.8	20
36	Plant-made immunotoxin building blocks: A roadmap for producing therapeutic antibody-toxin fusions. Biotechnology Advances, 2021, 47, 107683.	11.7	20

#	Article	IF	Citations
37	The impact of <scp>P</scp>seudomonas syringae type <scp>III</scp> effectors on transient protein expression in tobacco. Plant Biology, 2015, 17, 484-492.	3.8	19
38	Analysis of the dose-dependent stage-specific in vitro efficacy of a multi-stage malaria vaccine candidate cocktail. Malaria Journal, 2016, 15, 279.	2.3	19
39	Improvement of a fermentation process for the production of two PfAMA1-DiCo-based malaria vaccine candidates in Pichia pastoris. Scientific Reports, 2017, 7, 11991.	3.3	19
40	Characterization of Complex Systems Using the Design of Experiments Approach: Transient Protein Expression in Tobacco as a Case Study. Journal of Visualized Experiments, 2014, , e51216.	0.3	16
41	Comparison of Tobacco Host Cell Protein Removal Methods by Blanching Intact Plants or by Heat Treatment of Extracts. Journal of Visualized Experiments, 2016, , .	0.3	16
42	Production of Functional Anti-Ebola Antibodies in Pichia pastoris. ACS Synthetic Biology, 2017, 6, 2183-2190.	3.8	15
43	Expression and purification of human phosphatase and actin regulator 1 (PHACTR1) in plant-based systems. Protein Expression and Purification, 2018, 151, 46-55.	1.3	15
44	A linear epitope coupled to DsRed provides an affinity ligand for the capture of monoclonal antibodies. Journal of Chromatography A, 2018, 1571, 55-64.	3.7	14
45	Glyco-Engineering of Plant-Based Expression Systems. Advances in Biochemical Engineering/Biotechnology, 2018, 175, 137-166.	1.1	13
46	Numeric simulation can be used to predict heat transfer during the blanching of leaves and intact plants. Biochemical Engineering Journal, 2016, 109, 118-126.	3.6	12
47	Synthetic polymers are more effective than natural flocculants for the clarification of tobacco leaf extracts. Journal of Biotechnology, 2015, 195, 37-42.	3.8	11
48	Cryopreservation of plant cell cultures â€“ Diverse practices and protocols. New Biotechnology, 2021, 62, 86-95.	4.4	11
49	The Correlation Between DsRed mRNA Levels and Transient DsRed Protein Expression in Plants Depends on Leaf Age and the 5â€² Untranslated Region. Biotechnology Journal, 2019, 14, 1800075.	3.5	10
50	A combined pH and temperature precipitation step facilitates the purification of tobaccoâ€derived recombinant proteins that are sensitive to extremes of either parameter. Biotechnology Journal, 2021, 16, e2000340.	3.5	10
51	Readyâ€toâ€Use Stocks of Agrobacterium tumefaciens Can Simplify Process Development for the Production of Recombinant Proteins by Transient Expression in Plants. Biotechnology Journal, 2019, 14, 1900113.	3.5	9
52	Nicotiana spp. for the Expression and Purification of Functional IgG3 Antibodies Directed Against the Staphylococcus aureus Alpha Toxin. Frontiers in Chemical Engineering, 2021, 3, .	2.7	8
53	Molecular Farming in Plants: The Long Road to the Market. Biotechnology in Agriculture and Forestry, 2014, , 27-41.	0.2	7
54	Non-invasive Imaging and Modeling of Liver Regeneration After Partial Hepatectomy. Frontiers in Physiology, 2019, 10, 904.	2.8	7

#	Article	IF	Citations
55	Precision analysis for the determination of steric mass action parameters using eight tobacco host cell proteins. Journal of Chromatography A, 2021, 1652, 462379.	3.7	7
56	Expression of Biofilm-Degrading Enzymes in Plants and Automated High-Throughput Activity Screening Using Experimental Bacillus subtilis Biofilms. Frontiers in Bioengineering and Biotechnology, 2021, 9, 708150.	4.1	6
57	Activated Cross-linked Agarose for the Rapid Development of Affinity Chromatography Resins - Antibody Capture as a Case Study. Journal of Visualized Experiments, 2019, , .	0.3	5
58	The transient expression of recombinant proteins in plant cell packs facilitates stable isotope labelling for <scp>NMR</scp> spectroscopy. Plant Biotechnology Journal, 2022, 20, 1928-1939.	8.3	5
59	Procedure to Evaluate the Efficiency of Flocculants for the Removal of Dispersed Particles from Plant Extracts. Journal of Visualized Experiments, 2016, , .	0.3	4
60	Bioreactor-Based Production of Glycoproteins in Plant Cell Suspension Cultures. Methods in Molecular Biology, 2018, 1674, 129-146.	0.9	4
61	Reducing water uptake into BYâ€2 cells by systematically optimizing the cultivation parameters increases product yields achieved by transient expression in plant cell packs. Biotechnology Journal, 2022, 17, .	3.5	4
62	Controlling the interplay betweenAgrobacterium tumefaciensand plants during the transient expression of proteins. Bioengineered, 2015, 6, 242-244.	3.2	3
63	How Plants Can Contribute to the Supply of Anticancer Compounds. , 2017, , 39-72.		3
64	Statistical Designs to Improve Downstream Processing. Methods in Molecular Biology, 2022, , 295-310.	0.9	3
65	Strategies for Efficient and Sustainable Protein Extraction and Purification from Plant Tissues. Methods in Molecular Biology, 2022, , 127-145.	0.9	3
66	Preface: Genome editing in plants. Transgenic Research, 2021, 30, 317-320.	2.4	2
67	Spherical nanoparticles can be used as non-penetrating tracers to determine the extra-particle void volume in packed-bed chromatography columns. Journal of Chromatography A, 2022, 1675, 463174.	3.7	2
68	A Rapid Laser Probing Method Facilitates the Non-invasive and Contact-free Determination of Leaf Thermal Properties. Journal of Visualized Experiments, 2017, , .	0.3	0
69	Using quantitative structure-activity relationship models to predict protein properties for chromatographic separation of host cell proteins. Chemie-Ingenieur-Technik, 2018, 90, 1300-1300.	0.8	0
70	A combined temperature and pH precipitation step facilitates the purification of tobaccoâ€derived recombinant proteins that are sensitive to both conditions. Chemie-Ingenieur-Technik, 2020, 92, 1215-1215.	0.8	0