

Ivo FrÃ©bort

List of Publications by Year in descending order

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101
papers

3,476
citations

182225

30
h-index

175968

55
g-index

104
all docs

104
docs citations

104
times ranked

3849
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent advances in molecular farming using monocot plants. <i>Biotechnology Advances</i> , 2022, 58, 107913.	6.0	16
2	Molecular farming: Expanding the field of edible vaccines for sustainable fish aquaculture. <i>Reviews in Aquaculture</i> , 2022, 14, 1978-2001.	4.6	7
3	CRISPR/Cas9 genome editing in ergot fungus <i>Claviceps purpurea</i> . <i>Journal of Biotechnology</i> , 2021, 325, 341-354.	1.9	14
4	Overexpression of Trp-related genes in <i>Claviceps purpurea</i> leading to increased ergot alkaloid production. <i>New Biotechnology</i> , 2021, 61, 69-79.	2.4	7
5	Current state and future directions of bioeconomy in the Czech Republic. <i>New Biotechnology</i> , 2021, 61, 1-8.	2.4	19
6	Biochemical and Structural Aspects of Cytokinin Biosynthesis and Degradation in Bacteria. <i>Microorganisms</i> , 2021, 9, 1314.	1.6	22
7	Long-Lasting Stable Expression of Human LL-37 Antimicrobial Peptide in Transgenic Barley Plants. <i>Antibiotics</i> , 2021, 10, 898.	1.5	14
8	European genome editing regulations: threats to the European bioeconomy and unfit for purpose. <i>EFB Bioeconomy Journal</i> , 2021, 1, 100001.	1.1	8
9	Human virus detection with graphene-based materials. <i>Biosensors and Bioelectronics</i> , 2020, 166, 112436.	5.3	140
10	The main DNA viruses significantly affecting pig livestock. <i>Journal of Veterinary Research (Poland)</i> , 2020, 65, 15-25.	0.3	5
11	Molecular Farming in Barley: Development of a Novel Production Platform to Produce Human Antimicrobial Peptide LL-37. <i>Biotechnology Journal</i> , 2018, 13, 1700628.	1.8	21
12	Light influences cytokinin biosynthesis and sensing in <i>Nostoc</i> (cyanobacteria). <i>Journal of Phycology</i> , 2017, 53, 703-714.	1.0	19
13	Activity of (+)-Discadenine as a Plant Cytokinin. <i>Journal of Natural Products</i> , 2017, 80, 2136-2140.	1.5	11
14	Purification of Maize Nucleotide Pyrophosphatase/Phosphodiesterase Casts Doubt on the Existence of Zeatin Cis-Trans Isomerase in Plants. <i>Frontiers in Plant Science</i> , 2017, 8, 1473.	1.7	20
15	Plant Biotechnology: Green for Good III. <i>New Biotechnology</i> , 2016, 33, 593.	2.4	0
16	Crown-root development in barley (<i>Hordeum vulgare</i> L.): Molecular and hormonal control. <i>New Biotechnology</i> , 2016, 33, S166.	2.4	0
17	Design and validation of an STR hexaplex assay for DNA profiling of grapevine cultivars. <i>Electrophoresis</i> , 2016, 37, 3059-3067.	1.3	3
18	Kinetic and structural investigation of the cytokinin oxidase/dehydrogenase active site. <i>FEBS Journal</i> , 2016, 283, 361-377.	2.2	24

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19	Transgenic barley overexpressing a cytokinin dehydrogenase gene shows greater tolerance to drought stress. <i>New Biotechnology</i> , 2016, 33, 692-705.	2.4	117
20	Extra- and intracellular distribution of cytokinins in the leaves of monocots and dicots. <i>New Biotechnology</i> , 2016, 33, 735-742.	2.4	37
21	The three-dimensional structure of "Lonely Guy" from <i>Claviceps purpurea</i> provides insights into the phosphoribohydrolase function of Rossmann fold-containing lysine decarboxylase-like proteins. <i>Proteins: Structure, Function and Bioinformatics</i> , 2015, 83, 1539-1546.	1.5	17
22	Biochemical Characterization of Putative Adenylate Dimethylallyltransferase and Cytokinin Dehydrogenase from <i>Nostoc</i> sp. PCC 7120. <i>PLoS ONE</i> , 2015, 10, e0138468.	1.1	19
23	Improving field production of ergot alkaloids by application of gametocide on rye host plants. <i>New Biotechnology</i> , 2015, 32, 739-746.	2.4	3
24	Antimicrobial peptide production and plant-based expression systems for medical and agricultural biotechnology. <i>Biotechnology Advances</i> , 2015, 33, 1005-1023.	6.0	107
25	Acetic acid bacteria: A group of bacteria with versatile biotechnological applications. <i>Biotechnology Advances</i> , 2015, 33, 1260-1271.	6.0	131
26	A Highly Selective Biosensor with Nanomolar Sensitivity Based on Cytokinin Dehydrogenase. <i>PLoS ONE</i> , 2014, 9, e90877.	1.1	4
27	Transgenic barley: A prospective tool for biotechnology and agriculture. <i>Biotechnology Advances</i> , 2014, 32, 137-157.	6.0	41
28	Engineering barley for increased drought resistance. <i>New Biotechnology</i> , 2014, 31, S56.	2.4	0
29	Identification of Genes Essential for the Biogenesis of Quinohemoprotein Amine Dehydrogenase. <i>Biochemistry</i> , 2014, 53, 895-907.	1.2	14
30	Guest Editorial. <i>Biotechnology Advances</i> , 2014, 32, 1.	6.0	2
31	Parasitic fungus <i>Claviceps</i> as a source for biotechnological production of ergot alkaloids. <i>Biotechnology Advances</i> , 2013, 31, 79-89.	6.0	60
32	Enzyme Based Amperometric Biosensor for Adenine Determination. <i>Electroanalysis</i> , 2013, 25, 237-242.	1.5	5
33	Genetic engineering of cytokinin metabolism: Prospective way to improve agricultural traits of crop plants. <i>Biotechnology Advances</i> , 2013, 31, 97-117.	6.0	109
34	Overexpression of Cytokinin Dehydrogenase Genes in Barley (<i>Hordeum vulgare</i> cv. Golden Promise) Fundamentally Affects Morphology and Fertility. <i>PLoS ONE</i> , 2013, 8, e79029.	1.1	69
35	Evolution of cytokinin biosynthesis and degradation. <i>Journal of Experimental Botany</i> , 2011, 62, 2431-2452.	2.4	341
36	Prussian Blue acts as a mediator in a reagentless cytokinin biosensor. <i>Analytica Chimica Acta</i> , 2011, 701, 218-223.	2.6	11

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37	Root-synthesized cytokinins improve shoot growth and fruit yield in salinized tomato (<i>Solanum</i>) Tj ETQq1 1 0.784314 rgBT /Overlock 198	2.4	198
38	Preparation of transgenic barley with improved quality. <i>Journal of Biotechnology</i> , 2010, 150, 119-119.	1.9	0
39	Vacuolar and cytosolic cytokinin dehydrogenases of <i>Arabidopsis thaliana</i> : Heterologous expression, purification and properties. <i>Phytochemistry</i> , 2010, 71, 1970-1978.	1.4	74
40	Degradation of cytokinins by maize cytokinin dehydrogenase is mediated by free radicals generated by enzymatic oxidation of natural benzoxazinones. <i>Plant Journal</i> , 2010, 61, 467-481.	2.8	35
41	Phenyl- and benzylurea cytokinins as competitive inhibitors of cytokinin oxidase/dehydrogenase: A structural study. <i>Biochimie</i> , 2010, 92, 1052-1062.	1.3	53
42	Characterization of New Maize Genes Putatively Involved in Cytokinin Metabolism and Their Expression during Osmotic Stress in Relation to Cytokinin Levels Å. <i>Plant Physiology</i> , 2009, 151, 433-447.	2.3	139
43	Subcellular localization and biochemical comparison of cytosolic and secreted cytokinin dehydrogenase enzymes from maize. <i>Journal of Experimental Botany</i> , 2009, 60, 2701-2712.	2.4	68
44	Assessment of CE for the identification of microorganisms. <i>Electrophoresis</i> , 2009, 30, 444-449.	1.3	14
45	Functional expression of amine oxidase from <i>Aspergillus niger</i> (AO-I) in <i>Saccharomyces cerevisiae</i> . <i>Molecular Biology Reports</i> , 2009, 36, 13-20.	1.0	5
46	Nebularine Affects Plant Growth and Development but does not Interfere with Cytokinin Signaling. <i>Journal of Plant Growth Regulation</i> , 2009, 28, 321-330.	2.8	1
47	Quantification of DNA during winemaking by fluorimetry and <i>Vitis vinifera</i> L.-specific quantitative PCR. <i>European Food Research and Technology</i> , 2008, 226, 491-497.	1.6	20
48	Amine oxidase amperometric biosensor coupled to liquid chromatography for biogenic amines determination. <i>Mikrochimica Acta</i> , 2008, 163, 219-225.	2.5	37
49	Metabolism of plant hormones cytokinins and their function in signaling, cell differentiation and plant development. <i>Studies in Natural Products Chemistry</i> , 2008, , 203-264.	0.8	13
50	Hydrolytic cleavage of <i>N</i> -6-substituted adenine derivatives by eukaryotic adenine and adenosine deaminases. <i>Bioscience Reports</i> , 2008, 28, 335-347.	1.1	17
51	Biochemical Characterization of Cytokinin Oxidases/Dehydrogenases from <i>Arabidopsis thaliana</i> Expressed in <i>Nicotiana tabacum</i> L.. <i>Journal of Plant Growth Regulation</i> , 2007, 26, 255-267.	2.8	151
52	Developmental stage as a possible factor affecting cytokinin content and cytokinin dehydrogenase activity in <i>Pinus sylvestris</i> . <i>Biologia Plantarum</i> , 2007, 51, 193-197.	1.9	4
53	Functional expression and purification of cytokinin dehydrogenase from <i>Arabidopsis thaliana</i> (AtCKX2) in <i>Saccharomyces cerevisiae</i> . <i>Biologia Plantarum</i> , 2007, 51, 673-682.	1.9	21
54	AMINOHYDROLASES ACTING ON ADENINE, ADENOSINE AND THEIR DERIVATIVES. <i>Biomedical Papers of the Medical Faculty of the University Palacký&#x0301;, Olomouc, Czechoslovakia</i> , 2007, 151, 3-10.	0.2	12

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55	Kinetic and chemical analyses of the cytokinin dehydrogenase-catalysed reaction: correlations with the crystal structure. <i>Biochemical Journal</i> , 2006, 398, 113-124.	1.7	25
56	Mapping the primary structure of copper/topaquinone-containing methylamine oxidase from <i>Aspergillus niger</i> . <i>Folia Microbiologica</i> , 2005, 50, 401-408.	1.1	1
57	Tissue Localization of Cytokinin Dehydrogenase in Maize: Possible Involvement of Quinone Species Generated from Plant Phenolics by Other Enzymatic Systems in the Catalytic Reaction. <i>Plant and Cell Physiology</i> , 2005, 46, 716-728.	1.5	48
58	Cytokinin oxidase/dehydrogenase genes in barley and wheat. <i>FEBS Journal</i> , 2004, 271, 3990-4002.	0.2	86
59	Catalytic reaction of cytokinin dehydrogenase: preference for quinones as electron acceptors. <i>Biochemical Journal</i> , 2004, 380, 121-130.	1.7	70
60	Molybdenum Cofactor-Containing Oxidoreductase Family in Plants. <i>Biologia Plantarum</i> , 2003, 46, 481-490.	1.9	15
61	Recent news related to substrates and inhibitors of plant amine oxidases. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2003, 1647, 355-360.	1.1	6
62	Gene Organization and Molecular Modeling of Copper Amine Oxidase from <i>Aspergillus niger</i> : Re-Evaluation of the Cofactor Structure. <i>Biological Chemistry</i> , 2003, 384, 1451-61.	1.2	5
63	Copper/topa quinone-containing amine oxidases – Recent research developments. <i>Studies in Natural Products Chemistry</i> , 2002, 26, 1259-1299.	0.8	3
64	Cytokinin Oxidase/Cytokinin Dehydrogenase Assay: Optimized Procedures and Applications. <i>Analytical Biochemistry</i> , 2002, 306, 1-7.	1.1	91
65	Xanthine dehydrogenase of pea seedlings: a member of the plant molybdenum oxidoreductase family. <i>Plant Physiology and Biochemistry</i> , 2002, 40, 393-400.	2.8	15
66	Inhibition of copper amine oxidases by pyridine-derived aldoximes and ketoximes. <i>Biochimie</i> , 2001, 83, 995-1002.	1.3	9
67	FAD-containing polyamine oxidases: a timely challenge for researchers in biochemistry and physiology of plants. <i>Plant Science</i> , 2001, 160, 197-207.	1.7	119
68	Probing the Active Site of Pea Seedlings Amine Oxidase with Optical Antipodes of Sedamine Alkaloids. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2001, 16, 367-372.	0.5	7
69	Cytokinin oxidase or dehydrogenase?. <i>FEBS Journal</i> , 2001, 268, 450-461.	0.2	115
70	Barley polyamine oxidase: characterisation and analysis of the cofactor and the N-terminal amino acid sequence. <i>Phytochemical Analysis</i> , 2001, 12, 166-173.	1.2	18
71	Amine Oxidase Based Amperometric Biosensors for Histamine Detection. <i>Electroanalysis</i> , 2000, 12, 369-375.	1.5	46
72	Molecular mode of interaction of plant amine oxidase with the mechanism-based inhibitor 2-butyne-1,4-diamine. <i>FEBS Journal</i> , 2000, 267, 1423-1433.	0.2	19

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73	Degradation of cytokinins by cytokinin oxidases in plants. <i>Plant Growth Regulation</i> , 2000, 32, 315-327.	1.8	39
74	Cellular localization and metabolic function of n-butylamine-induced amine oxidases in the fungus <i>Aspergillus niger</i> AKU 3302. <i>Archives of Microbiology</i> , 2000, 173, 358-365.	1.0	12
75	A Study on the Reactions of Plant Copper Amine Oxidase with C3 and C4 Aliphatic Diamines. <i>Archives of Biochemistry and Biophysics</i> , 2000, 384, 88-99.	1.4	16
76	Amine oxidase-based flow biosensor for the assessment of fish freshness. <i>Food Control</i> , 2000, 11, 13-18.	2.8	26
77	Redox Hydrogel-Based Amperometric Bienzyme Electrodes for Fish Freshness Monitoring. <i>Analytical Chemistry</i> , 2000, 72, 1591-1597.	3.2	82
78	Electrooxidation Mechanism of Biogenic Amines at Amine Oxidase Modified Graphite Electrode. <i>Analytical Chemistry</i> , 2000, 72, 5988-5993.	3.2	13
79	Purification and Characterization of Methylamine Oxidase Induced in <i>Aspergillus niger</i> AKU 3302. <i>Bioscience, Biotechnology and Biochemistry</i> , 1999, 63, 125-134.	0.6	15
80	Comparison of kinetic properties of amine oxidases from sainfoin and lentil and immunochemical characterization of copper/quinoprotein amine oxidases. <i>IUBMB Life</i> , 1999, 47, 47-61.	1.5	1
81	Screening of the occurrence of copper amine oxidases in Fabaceae plants. <i>Biologia Plantarum</i> , 1998, 41, 241-254.	1.9	6
82	Analysis of the active sites of copper/topa quinone-containing amine oxidases from <i>Lathyrus odoratus</i> and <i>L. sativus</i> seedlings. <i>Phytochemical Analysis</i> , 1998, 9, 211-222.	1.2	31
83	Cytokinins as Inhibitors of Plant Amine Oxidase. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 1998, 13, 457-463.	0.5	12
84	Inhibitors of Plant Copper Amineoxidases. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 1998, 13, 311-325.	0.5	18
85	Confirmation of the presence of a Cu(II)/topa quinone active site in the amine oxidase from fenugreek seedlings. <i>Journal of Experimental Botany</i> , 1997, 48, 1897-1907.	2.4	12
86	The fungus <i>Gibberella fujikuroi</i> produces copper/topaquinone-containing amine oxidase when induced by n-butylamine. <i>IUBMB Life</i> , 1997, 41, 11-23.	1.5	2
87	Vanillin formation by microbial amine oxidases from vanillylamine. <i>Journal of Bioscience and Bioengineering</i> , 1997, 84, 603-605.	0.9	23
88	Involvement of multiple copper/topa quinone-containing and flavin-containing amine oxidases and NAD(P)+ aldehyde dehydrogenases in amine degradation by filamentous fungi. <i>Journal of Bioscience and Bioengineering</i> , 1997, 84, 200-212.	0.9	14
89	Quinoprotein amine oxidase from sainfoin seedlings. <i>Phytochemistry</i> , 1997, 45, 239-242.	1.4	9
90	Confirmation of the presence of a Cu(II)/topa quinone active site in the amine oxidase from fenugreek seedlings. <i>Journal of Experimental Botany</i> , 1997, 48, 1897-1907.	2.4	8

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91	Comparison of Kinetic Properties Between Plant and Fungal Amine Oxidases. Journal of Enzyme Inhibition and Medicinal Chemistry, 1996, 10, 251-262.	0.5	12
92	Two amine oxidases from <i>Aspergillus niger</i> AKU 3302 contain topa quinone as the cofactor: unusual cofactor link to the glutamyl residue occurs only at one of the enzymes. BBA - Proteins and Proteomics, 1996, 1295, 59-72.	2.1	12
93	Two Distinct Quinoprotein Amine Oxidases are Induced by n-Butylamine in the Mycelia of <i>Aspergillus niger</i> AKU 3302. Purification, Characterization, cDNA Cloning and Sequencing. FEBS Journal, 1996, 237, 255-265.	0.2	33
94	Amino oxidase from <i>trigonella foenum-graecum</i> seedlings. Phytochemistry, 1995, 38, 23-25.	1.4	6
95	Copper/quinone-containing amine oxidases, an exciting class of ubiquitous enzymes. Journal of Bioscience and Bioengineering, 1995, 80, 625-632.	0.9	36
96	Inhibition of Copper/Quinoprotein Mine Oxidases from <i>Aspergillus niger</i> by Benzophenanthridine Alkaloids. Journal of Enzyme Inhibition and Medicinal Chemistry, 1995, 9, 295-302.	0.5	4
97	Active-Site Covalent Modifications of Quinoprotein Amine Oxidases from <i>Aspergillus niger</i> . Evidence for Binding of the Mechanism-Based Inhibitor, 1,4-Diamino-2-Butyne, to Residue Lys356 Involved in the Catalytic Cycle. FEBS Journal, 1994, 225, 959-965.	0.2	16
98	Time-Dependent Inhibition of Pea Cotyledon Diamine Oxidase by Some Hydrazides. Journal of Enzyme Inhibition and Medicinal Chemistry, 1992, 6, 243-250.	0.5	4
99	A kinetic method for assay of plant peroxidase and catalase activities by chemiluminescence. Phytochemical Analysis, 1992, 3, 55-60.	1.2	4
100	Some Amines as Inhibitors of Pea Diamine Oxidase. Journal of Enzyme Inhibition and Medicinal Chemistry, 1991, 5, 323-329.	0.5	6
101	Comparison of Coupling Subsites and Inhibition Effects of Piperidine Alkaloids and Aminoketones on Plant Amine Oxidases. Journal of Enzyme Inhibition and Medicinal Chemistry, 1991, 4, 327-335.	0.5	7