## Tomas Macek

## List of Publications by Year in descending order

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		81434	6	66518
130	7,220 citations	41		82
papers	citations	h-index		g-index
155	155	155		7245
133	133	133		7273
all docs	docs citations	times ranked		citing authors

#	Article	IF	CITATIONS
1	Flavonolignans from silymarin modulate antibiotic resistance and virulence in Staphylococcus aureus. Biomedicine and Pharmacotherapy, 2022, 149, 112806.	2.5	8
2	Defying Multidrug Resistance! Modulation of Related Transporters by Flavonoids and Flavonolignans. Journal of Agricultural and Food Chemistry, 2020, 68, 1763-1779.	2.4	46
3	Multidrug Resistance Modulation Activity of Silybin Derivatives and Their Anti-Inflammatory Potential. Antioxidants, 2020, 9, 455.	2.2	31
4	Antioxidant, Anti-Inflammatory, and Multidrug Resistance Modulation Activity of Silychristin Derivatives. Antioxidants, 2019, 8, 303.	2.2	23
5	Recombinant expression of osmotin in barley improves stress resistance and food safety during adverse growing conditions. PLoS ONE, 2019, 14, e0212718.	1.1	9
6	Diversity of root-associated microbial populations of Tamarix parviflora cultivated under various conditions. Applied Soil Ecology, 2018, 125, 264-272.	2.1	16
7	Complete genome sequence of Pseudomonas alcaliphila JAB1 (=DSM 26533), a versatile degrader of organic pollutants. Standards in Genomic Sciences, 2018, 13, 3.	1.5	36
8	Phytoextraction of Heavy Metals: A Promising Tool for Clean-Up of Polluted Environment?. Frontiers in Plant Science, 2018, 9, 1476.	1.7	294
9	The use of phosphomannose isomerase selection system for Agrobacterium-mediated transformation of tobacco and flax aimed for phytoremediation. Journal of Environmental Science and Health - Part B Pesticides, Food Contaminants, and Agricultural Wastes, 2017, 52, 338-345.	0.7	9
10	Secondary compound hypothesis revisited: Selected plant secondary metabolites promote bacterial degradation of cis-1,2-dichloroethylene (cDCE). Scientific Reports, 2017, 7, 8406.	1.6	38
11	New findings in potential applications of tobacco osmotin. Protein Expression and Purification, 2017, 129, 84-93.	0.6	11
12	Bacterial Biotransformation of Pentachlorophenol and Micropollutants Formed during Its Production Process. International Journal of Environmental Research and Public Health, 2016, 13, 1146.	1.2	25
13	Differential Impacts of Willow and Mineral Fertilizer on Bacterial Communities and Biodegradation in Diesel Fuel Oil-Contaminated Soil. Frontiers in Microbiology, 2016, 7, 837.	1.5	26
14	Plants Rather than Mineral Fertilization Shape Microbial Community Structure and Functional Potential in Legacy Contaminated Soil. Frontiers in Microbiology, 2016, 7, 995.	1.5	43
15	Effects of Secondary Plant Metabolites on Microbial Populations: Changes in Community Structure and Metabolic Activity in Contaminated Environments. International Journal of Molecular Sciences, 2016, 17, 1205.	1.8	102
16	Native Phytoremediation Potential of Urtica dioica for Removal of PCBs and Heavy Metals Can Be Improved by Genetic Manipulations Using Constitutive CaMV 35S Promoter. PLoS ONE, 2016, 11, e0167927.	1.1	27
17	Phytoremediation., 2016,,.		14
18	Transgenic plants and hairy roots: exploiting the potential of plant species to remediate contaminants. New Biotechnology, 2016, 33, 625-635.	2.4	65

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19	Pseudomonads Rule Degradation of Polyaromatic Hydrocarbons in Aerated Sediment. Frontiers in Microbiology, 2015, 6, 1268.	1.5	54
20	The effect of exogenous 24-epibrassinolide on the ecdysteroid content in the leaves of Spinacia oleracea L Steroids, 2015, 97, 107-112.	0.8	8
21	Preparation of vectors with metallothionein gene enriched by additional metal binding domain and their transient expression in Nicotiana tabacum. Biologia Plantarum, 2015, 59, 394-398.	1.9	1
22	Bacterial community structure in treated sewage sludge with mesophilic and thermophilic anaerobic digestion. Folia Microbiologica, 2015, 60, 531-539.	1.1	18
23	Antibacterial effect of compounds of peptide nature contained in aqueous extract of Brassica napus and Solanum lycopersicum and Tetragonia tetragonioides leaves. Journal of Microbiology, Biotechnology and Food Sciences, 2015, 04, 427-433.	0.4	2
24	Effect of Chain Elongation on Biological Properties of the Toxin Paralysin ⟨i⟩β⟨ i⟩â€Alanylâ€ŧyrosine. Chemical Biology and Drug Design, 2014, 83, 418-426.	1.5	1
25	Putative P1B-type ATPase from the bacterium Achromobacter xylosoxidans A8 alters Pb2+/Zn2+/Cd2+-resistance and accumulation in Saccharomyces cerevisiae. Biochimica Et Biophysica Acta - Biomembranes, 2014, 1838, 1338-1343.	1.4	8
26	Characterization of Transgenic Tobacco Plants Containing Bacterial <i>bphc</i> Gene and Study of Their Phytoremediation Ability. International Journal of Phytoremediation, 2014, 16, 937-946.	1.7	15
27	24-Epibrassinolide and 20-hydroxyecdysone affect photosynthesis differently in maize and spinach. Steroids, 2014, 85, 44-57.	0.8	26
28	Bacterial acquisition of hexachlorobenzene-derived carbon in contaminated soil. Chemosphere, 2014, 113, 141-145.	4.2	13
29	Plant secondary metabolite-induced shifts in bacterial community structure and degradative ability in contaminated soil. Applied Microbiology and Biotechnology, 2013, 97, 9245-9256.	1.7	56
30	Exogenously applied 20-hydroxyecdysone increases the net photosynthetic rate but does not affect the photosynthetic electron transport or the content of photosynthetic pigments in Tetragonia tetragonioides L Acta Physiologiae Plantarum, 2013, 35, 3489-3495.	1.0	9
31	Stable isotope probing in the metagenomics era: A bridge towards improved bioremediation. Biotechnology Advances, 2013, 31, 154-165.	6.0	114
32	Diversity of chlorobiphenyl-metabolizing bacteria and their biphenyl dioxygenases in contaminated sediment. Chemosphere, 2013, 93, 1548-1555.	4.2	28
33	Influence of Root Exudates on the Bacterial Degradation of Chlorobenzoic Acids. Scientific World Journal, The, 2013, 2013, 1-8.	0.8	5
34	Bioremediation of Chlorobenzoic Acids. , 2013, , .		1
35	Metabolites of 2,2′-dichlorobiphenyl and 2,6-dichlorobiphenyl in hairy root culture of black nightshade Solanum nigrum SNC-9O. Chemosphere, 2012, 89, 383-388.	4.2	16
36	Osmotin, a Pathogenesis-Related Protein. Current Protein and Peptide Science, 2012, 13, 672-681.	0.7	35

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37	Whole-cell MALDI-TOF: Rapid screening method in environmental microbiology. International Biodeterioration and Biodegradation, 2012, 69, 82-86.	1.9	46
38	Cadmium-induced production of phytochelatins and speciation of intracellular cadmium in organs of Linum usitatissimum seedlings. Industrial Crops and Products, 2012, 36, 536-542.	2.5	49
39	Identification of Bacteria Utilizing Biphenyl, Benzoate, and Naphthalene in Long-Term Contaminated Soil. PLoS ONE, 2012, 7, e40653.	1.1	124
40	Potential of Biosorption Technology. , 2011, , 7-17.		22
41	Transgenic Approaches to Improve Phytoremediation of Heavy Metal Polluted Soils. Environmental Pollution, 2011, , 409-438.	0.4	2
42	Matrix-Assisted Laser Desorption Ionization (MALDI)-Time of Flight Mass Spectrometry- and MALDI Biotyper-Based Identification of Cultured Biphenyl-Metabolizing Bacteria from Contaminated Horseradish Rhizosphere Soil. Applied and Environmental Microbiology, 2011, 77, 6858-6866.	1.4	77
43	Expression of osmotin, an antifungal protein from Nicotiana tabacum in Escherichia coli. , 2011, , .		0
44	Removal of 4-chlorobenzoic acid from spiked hydroponic solution by willow trees (Salix viminalis). Environmental Science and Pollution Research, 2010, 17, 1355-1361.	2.7	18
45	Absorption and translocation of polybrominated diphenyl ethers (PBDEs) by plants from contaminated sewage sludge. Chemosphere, 2010, 81, 381-386.	4.2	76
46	Genetically modified plants with improved phytoremediation properties. Journal of Biotechnology, 2010, 150, 118-118.	1.9	0
47	Purification and characterization of antimicrobial peptides from fleshfly Neobellieria bullata. Journal of Biotechnology, 2010, 150, 451-452.	1.9	O
48	Affinity chromatography as the method for brassinosteroid-binding protein isolation. Journal of Biotechnology, 2010, 150, 490-490.	1.9	6
49	Cloning the bacterial <i>bphC gene </i> into <i>Nicotiana tabacum </i> to improve the efficiency of phytoremediation of polychlorinated biphenyls. Bioengineered Bugs, 2010, 1, 419-423.	2.0	16
50	Bacterial Degradation of Polychlorinated Biphenyls. , 2010, , 347-366.		16
51	Approaches for diversity analysis of cultivable and non-cultivable bacteriain real soil. Plant, Soil and Environment, 2009, 55, 389-396.	1.0	18
52	BIODEGRADATION OF PAHS IN LONG-TERM CONTAMINATED SOIL CULTIVATED WITH EUROPEAN WHITE BIRCH ( <i>BETULA PENDULA</i> ) AND RED MULBERRY ( <i>MORUS RUBRA</i> ) TREE. International Journal of Phytoremediation, 2009, 11, 65-80.	1.7	11
53	Biphenyl-Metabolizing Bacteria in the Rhizosphere of Horseradish and Bulk Soil Contaminated by Polychlorinated Biphenyls as Revealed by Stable Isotope Probing. Applied and Environmental Microbiology, 2009, 75, 6471-6477.	1.4	102
54	DNA-based stable isotope probing: a link between community structure and function. Science of the Total Environment, 2009, 407, 3611-3619.	3.9	77

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55	Therapeutic application of peptides and proteins: parenteral forever?. Trends in Biotechnology, 2009, 27, 628-635.	4.9	279
56	Genetically modified plants in phytoremediation of heavy metal and metalloid soil and sediment pollution. Biotechnology Advances, 2009, 27, 799-810.	6.0	249
57	Cloning the bacterial <i>bphC</i> gene into <i>Nicotiana tabacum</i> to improve the efficiency of PCB phytoremediation. Biotechnology and Bioengineering, 2009, 102, 29-37.	1.7	57
58	Phyto/rhizoremediation studies using long-term PCB-contaminated soil. Environmental Science and Pollution Research, 2009, 16, 817-829.	2.7	76
59	Isolation and characterization of different plant associated bacteria and their potential to degrade polychlorinated biphenyls. International Biodeterioration and Biodegradation, 2009, 63, 667-672.	1.9	57
60	Transgenic plants to improve rhizoremediation of polychlorinated biphenyls (PCBs). Current Opinion in Biotechnology, 2009, 20, 242-247.	3.3	48
61	Advances in Phytoremediation and Rhizoremediation. Soil Biology, 2009, , 257-277.	0.6	12
62	Determination of content of metallothionein and low molecular mass stress peptides in transgenic tobacco plants. Plant Cell, Tissue and Organ Culture, 2008, 94, 291-298.	1.2	40
63	Novel roles for genetically modified plants in environmental protection. Trends in Biotechnology, 2008, 26, 146-152.	4.9	172
64	Affinity chromatography reveals RuBisCO as an ecdysteroid-binding protein. Steroids, 2008, 73, 1433-1440.	0.8	10
65	The effect of ryegrass (Lolium perenne) on decrease of PAH content in long term contaminated soil. Chemosphere, 2008, 70, 1603-1608.	4.2	95
66	A novel approach to analysis microbial population in PCB-contaminated sediment. Journal of Biotechnology, 2008, 136, S703.	1.9	0
67	Hydroxy-PCBs, Methoxy-PCBs and Hydroxy-Methoxy-PCBs: Metabolites of Polychlorinated Biphenyls Formed In Vitro by Tobacco Cells. Environmental Science & Environmental Science & 2008, 42, 5746-5751.	4.6	45
68	Monitoring Native Vegetation on a Dumpsite of PCB-Contaminated Soil. International Journal of Phytoremediation, 2007, 9, 71-78.	1.7	19
69	The introduction of genetically modified microorganisms designed for rhizoremediation induces changes on native bacteria in the rhizosphere but not in the surrounding soil. ISME Journal, 2007, $1$ , $215-223$ .	4.4	53
70	The effect of EDDS chelate and inoculation with the arbuscular mycorrhizal fungus Glomus intraradices on the efficacy of lead phytoextraction by two tobacco clones. Applied Soil Ecology, 2007, 35, 163-173.	2.1	26
71	Biotransformation of PCBs by plants and bacteria – consequences of plant-microbe interactions. European Journal of Soil Biology, 2007, 43, 233-241.	1.4	67
72	Plant metabolites of polychlorinated biphenyls in hairy root culture of black nightshade Solanum nigrum SNC-9O. Chemosphere, 2007, 69, 1221-1227.	4.2	71

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73	Transgenic plants for effective phytoremediation of persistent toxic organic pollutants present in the environment. Journal of Biotechnology, 2007, 131, S38.	1.9	9
74	Preparation of transgenic flax with enhanced metal tolerance. Journal of Biotechnology, 2007, 131, S38-S39.	1.9	6
75	Rhizoremediation for decontamination of long-term PCB contaminated soil with focus on microbial diversity. Journal of Biotechnology, 2007, 131, S243.	1.9	3
76	Transformation of PCB degradation products (chlorobenzoic acids) by plant cells. Journal of Biotechnology, 2007, 131, S248.	1.9	1
77	Genetically modified plants with improved properties for phytoremediation purposes., 2006,, 85-108.		8
78	Polychlorinated Biphenyl (PCB)-Degrading Bacteria Associated with Trees in a PCB-Contaminated Site. Applied and Environmental Microbiology, 2006, 72, 2331-2342.	1.4	247
79	Phytoremediation of Polychlorinated Biphenyls. , 2006, , 143-167.		18
80	Treatment and Containment of Contaminated Sediments., 2006,, 137-178.		3
81	Arbuscular mycorrhiza decreases cadmium phytoextraction by transgenic tobacco with inserted metallothionein. Plant and Soil, 2005, 272, 29-40.	1.8	64
82	Polychlorinated Biphenyl Rhizoremediation by Pseudomonas fluorescens F113 Derivatives, Using a Sinorhizobium meliloti nod System To Drive bph Gene Expression. Applied and Environmental Microbiology, 2005, 71, 2687-2694.	1.4	146
83	PHYTOREMEDIATION. Annual Review of Plant Biology, 2005, 56, 15-39.	8.6	1,728
84	Influence of arbuscular mycorrhiza on the growth and cadmium uptake of tobacco with inserted metallothionein gene. Applied Soil Ecology, 2005, 29, 209-214.	2.1	27
85	Can tobacco have a potentially beneficial effect to our health?. Zeitschrift Fur Naturforschung - Section C Journal of Biosciences, 2005, 60, 292-9.	0.6	2
86	Two approaches to biological decontamination of groundwater and soil polluted by aromatics-characterization of microbial populations. International Microbiology, 2005, 8, 205-11.	1.1	57
87	Cadmium tolerance and accumulation in transgenic tobacco plants with a yeast metallothionein combined with a polyhistidine tail. International Biodeterioration and Biodegradation, 2004, 54, 233-237.	1.9	37
88	First semi-synthetic preparation of sex pheromones. Green Chemistry, 2004, 6, 305-307.	4.6	26
89	Ability of bacterial biphenyl dioxygenases from Burkholderia sp. LB400 and Comamonas testosteroni B-356 to catalyse oxygenation of ortho-hydroxychlorobiphenyls formed from PCBs by plants. Environmental Pollution, 2004, 127, 41-48.	3.7	42
90	The evaluation of cadmium, zinc and nickel accumulation ability of transgenic tobacco bearing different transgenes. Plant, Soil and Environment, 2004, 50, 513-517.	1.0	32

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91	Phytoremediation of Metals and Inorganic Pollutants. Soil Biology, 2004, , 135-157.	0.6	9
92	Phytoremediation: biological cleaning of a polluted environment. Reviews on Environmental Health, 2004, 19, 63-82.	1.1	8
93	Bacteria Degrading PCBs and CBs Isolated from Long-Term PCB Contaminated Soil. Water, Air and Soil Pollution, 2003, 3, 47-55.	0.8	11
94	Decolorization of RBBR by plant cells and correlation with the transformation of PCBs. Chemosphere, 2002, 49, 739-748.	4.2	19
95	Accumulation of Cadmium by Transgenic Tobacco. Acta Biotechnologica, 2002, 22, 101-106.	1.0	78
96	Enzymes in Plant Metabolism of PCBs and PAHs. Acta Biotechnologica, 2002, 22, 35-41.	1.0	57
97	Advances in Phytoremediation: Phytotransformation. , 2002, , 115-140.		6
98	Title is missing!. Biotechnology Letters, 2001, 23, 1355-1359.	1.1	29
99	Some Aspects of PCB Metabolism by Horseradish Cells. International Journal of Phytoremediation, 2001, 3, 401-414.	1.7	17
100	Exploitation of plants for the removal of organics in environmental remediation. Biotechnology Advances, 2000, 18, 23-34.	6.0	482
101	Title is missing!. Plant and Soil, 2000, 225, 109-115.	1.8	62
102	Synthesis of (20S)-2α,3α-Dihydroxy-6-oxo-7-oxa-7a-homo-5α-pregnane-20-carboxylic Acid as a Brassinosteroid Part of Ligands for Binding to Affinity Chromatography Carriers. Collection of Czechoslovak Chemical Communications, 2000, 65, 1754-1761.	1.0	14
103	Heavy Metal-Binding Peptides and Proteins in Plants. A Review. Collection of Czechoslovak Chemical Communications, 1999, 64, 1057-1086.	1.0	53
104	Correlation of PCB Transformation by Plant Tissue Cultures with Their Morphology and Peroxidase Activity Changes. Collection of Czechoslovak Chemical Communications, 1999, 64, 1497-1509.	1.0	27
105	Introduction of Green Plants for the Control of Metals and Organics in Environmental Remediation. , 1998, , 71-84.		13
106	Perspectives in biodegradation of alkanes and PCBs. Pure and Applied Chemistry, 1997, 69, 2357-2370.	0.9	23
107	Analytical Procedure for the Estimation of Polychlorinated Biphenyl Transformation by Plant Tissue Cultures. Analytical Communications, 1997, 34, 287-290.	2.2	14
108	Evaluation of the relation between the endogenous scopoletin and scopolin level of some solanaceous and papaver cell suspensions and their ability to bioconvert scopoletin to scopolin. Plant Science, 1997, 123, 205-210.	1.7	20

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109	Degradation of polychlorinated biphenyls by hairy root culture of Solanum nigrum. Biotechnology Letters, 1997, 19, 787-790.	1.1	52
110	Biodegradation of polychlorinated biphenyls by plant cells. International Biodeterioration and Biodegradation, 1997, 39, 317-325.	1.9	75
111	Biotransformation of Chanoclavine byEuphorbia calyptrataCell Culture. Journal of Natural Products, 1996, 59, 481-484.	1.5	3
112	Diethylpyrocarbonate—An effective agent for the sterilization of different types of nutrient media. Plant Cell, Tissue and Organ Culture, 1995, 43, 185-190.	1.2	3
113	Biotransformation of ergot alkaloids by plant cell cultures with high peroxidase activity. Biotechnology Letters, 1995, 17, 1213-1218.	1.1	13
114	Scopoletin-glucosyltransferase Activity from Duboisia myoporoides; Improvement of Cultivation Conditions and Crude Extract Preparation Procedure. Journal of Plant Physiology, 1995, 146, 503-507.	1.6	6
115	Chemical sterilization of nutrient media for plant cell cultures using diethylpyrocarbonate. Biotechnology Letters, 1994, 8, 885-888.	0.5	3
116	Accumulation of cadmium by hairy-root cultures of Solanum nigrum. Biotechnology Letters, 1994, 16, 621-624.	1.1	41
117	The rate of ecdysteroid production in suspension cultured cells of the fern Pteridium aquilinum. Phytochemistry, 1994, 35, 651-654.	1.4	17
118	Bioreductions by Saccharomyces cerevisiae. Journal of Biotechnology, 1992, 26, 173-181.	1.9	8
119	Reduction of 2-substituted cyclohexanones by Saccharomyces cerevisiae under aerobic and anaerobic conditions. Enzyme and Microbial Technology, 1992, 14, 197-202.	1.6	15
120	Galactose oxidase production by immobilized cells of Dactylium dendroides. Biotechnology Letters, 1992, 6, 309-312.	0.5	0
121	Ferulic acid conjugates and betacyanins from cell cultures of Beta vulgaris. Phytochemistry, 1991, 30, 3261-3265.	1.4	77
122	Production of ecdysteroids by plant cell culture of Pteridium aquilinum. Biotechnology Letters, 1990, 12, 727-730.	1.1	11
123	Stereochemistry of the Enzymatic Reduction of 2-(4-Methoxybenzyl)-1-Cyclohexanone by Solanum Aviculare Cells in vitro. Biocatalysis, 1989, 2, 265-272.	0.9	10
124	Plant cells immobilized in pectate gel: Biotransformation of verbenol isomers by Solanum aviculare free and immobilized cells. Biotechnology Letters, 1989, 3, 411-414.	0.5	9
125	ByDioscorea deltoidea free and immobilized plant cells. Biotechnology Letters, 1989, 11, 243-248.	1.1	11
126	Biotransformation of 2-(4-methoxybenzyl)-l-cyclohexanone by cell cultures of Solatium aviculare. Biologia Plantarum, 1987, 29, 88-93.	1.9	7

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#	ARTICLE	IF	CITATION
127	Biotransformation of 2-(4-methoxybenzyl)-1-cyclohexanone by means of Saccharomyces cerevisiae. Collection of Czechoslovak Chemical Communications, 1987, 52, 2326-2337.	1.0	26
128	Glucosidation of digitoxigenin by tissue culture of Digitalis lanata. Biotechnology Letters, 1986, 8, 859-862.	1.1	3
129	Occurrence of betulinic acid in different callus cultures of Solanum aviculare. Phytochemistry, 1985, 24, 3064-3065.	1.4	8
130	The Occurrence of the Amino Acid Nicotianamine in Plants and Microorganisms. A Reinvestigation. Biochemie Und Physiologie Der Pflanzen, 1985, 180, 557-563.	0.5	84