Petr Babula

List of Publications by Year
in descending order

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77	2,499	201385	214527
papers	citations	27 h-index	47 g-index

79	79	79	3534
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Uncommon heavy metals, metalloids and their plant toxicity: a review. Environmental Chemistry Letters, 2008, 6, 189-213.	8.3	328
2	Noteworthy Secondary Metabolites Naphthoquinones â€“ their Occurrence, Pharmacological Properties and Analysis. Current Pharmaceutical Analysis, 2009, 5, 47-68.	0.3	205
3	Toxicity of aluminium oxide nanoparticles demonstrated using a BY-2 plant cell suspension culture model. Environmental and Experimental Botany, 2013, 91, 1-11.	2.0	119
4	Possible ecological risk of two pharmaceuticals diclofenac and paracetamol demonstrated on a model plant Lemna minor. Journal of Hazardous Materials, 2016, 302, 351-361.	6.5	93
5	Hexavalent chromium damages chamomile plants by alteration of antioxidants and its uptake is prevented by calcium. Journal of Hazardous Materials, 2014, 273, 110-117.	6.5	64
6	Naphthoquinones as allelochemical triggers of programmed cell death. Environmental and Experimental Botany, 2009, 65, 330-337.	2.0	63
7	Unexpected Behavior of Some Nitric Oxide Modulators under Cadmium Excess in Plant Tissue. PLoS ONE, 2014, 9, e91685.	1.1	63
8	Physiology and methodology of chromium toxicity using alga Scenedesmus quadricauda as model object. Chemosphere, 2015, 120, 23-30.	4.2	61
9	Multimodal Holographic Microscopy: Distinction between Apoptosis and Oncosis. PLoS ONE, 2015, 10, e0121674.	1.1	59
10	Cisplatin-resistant prostate cancer model: Differences in antioxidant system, apoptosis and cell cycle. International Journal of Oncology, 2014, 44, 923-933.	1.4	58
11	Iron Complexes of Flavonoids-Antioxidant Capacity and Beyond. International Journal of Molecular Sciences, 2021, 22, 646.	1.8	58
12	Lanthanum rather than cadmium induces oxidative stress and metabolite changes in Hypericum perforatum. Journal of Hazardous Materials, 2015, 286, 334-342.	6.5	55
13	Nitric oxide donor modulates cadmium-induced physiological and metabolic changes in the green alga Coccomyxa subellipsoidea. Algal Research, 2015, 8, 45-52.	2.4	49
14	Ascorbic acid protects Coccomyxa subellipsoidea against metal toxicity through modulation of ROS/NO balance and metal uptake. Journal of Hazardous Materials, 2017, 339, 200-207.	6.5	49
15	Manganese-induced oxidative stress in two ontogenetic stages of chamomile and amelioration by nitric oxide. Plant Science, 2014, 215-216, 1-10.	1.7	48
16	Comparison of vascular and non-vascular aquatic plant as indicators of cadmium toxicity. Chemosphere, 2017, 180, 86-92.	4.2	45
17	Variation of antioxidants and secondary metabolites in nitrogen-deficient barley plants. Journal of Plant Physiology, 2014, 171, 260-268.	1.6	43
18	Preparation of Silica Nanoparticles Loaded with Nootropics and TheirIn VivoPermeation through Blood-Brain Barrier. BioMed Research International, 2015, 2015, 1-9.	0.9	39

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19	Melatonin-Induced Changes in Cytosolic Calcium Might be Responsible for Apoptosis Induction in Tumour Cells. Cellular Physiology and Biochemistry, 2017, 44, 763-777.	1.1	39
20	Phytotoxic action of naphthoquinone juglone demonstrated on lettuce seedling roots. Plant Physiology and Biochemistry, 2014, 84, 78-86.	2.8	38
21	Age affects not only metabolome but also metal toxicity in Scenedesmus quadricauda cultures. Journal of Hazardous Materials, 2016, 306, 58-66.	6.5	34
22	Electrochemical Determination of Low Molecular Mass Thiols Content in Potatoes (Solanum) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 627 (Phytophora infestans). Sensors, 2008, 8, 3165-3182.	2.1	33
23	Endogenous H2S producing enzymes are involved in apoptosis induction in clear cell renal cell carcinoma. BMC Cancer, 2018, 18, 591.	1.1	33
24	Amperometric Sensor for Detection of Chloride Ions. Sensors, 2008, 8, 5619-5636.	2.1	30
25	Nitric oxide affects cadmium-induced changes in the lichen Ramalina farinacea. Nitric Oxide - Biology and Chemistry, 2019, 83, 11-18.	1.2	30
26	Flow Injection Analysis Coupled with Carbon Electrodes as the Tool for Analysis of Naphthoquinones with Respect to Their Content and Functions in Biological Samples. Sensors, 2006, 6, 1466-1482.	2.1	29
27	Zinc oxide nanoparticles phytotoxicity on halophyte from genus Salicornia. Plant Physiology and Biochemistry, 2018, 130, 30-42.	2.8	28
28	Diclofenac as an environmental threat: Impact on the photosynthetic processes of Lemna minor chloroplasts. Chemosphere, 2019, 224, 892-899.	4.2	28
29	Squareâ€Wave Voltammetry as a Tool for Investigation of Doxorubicin Interactions with DNA Isolated from Neuroblastoma Cells. Electroanalysis, 2009, 21, 487-494.	1.5	26
30	Humic acid protects barley against salinity. Acta Physiologiae Plantarum, 2016, 38, 1.	1.0	26
31	Role of Sodium/Calcium Exchangers in Tumors. Biomolecules, 2020, 10, 1257.	1.8	26
32	Metal-induced oxidative stress in terrestrial macrolichens. Chemosphere, 2018, 203, 402-409.	4.2	25
33	Zinc Oxide Nanoparticles Damage Tobacco BY-2 Cells by Oxidative Stress Followed by Processes of Autophagy and Programmed Cell Death. Nanomaterials, 2020, 10, 1066.	1.9	25
34	Oxidative Stress Resistance in Metastatic Prostate Cancer: Renewal by Self-Eating. PLoS ONE, 2015, 10, e0145016.	1.1	24
35	Sodium/calcium exchanger is involved in apoptosis induced by H2S in tumor cells through decreased levels of intracellular pH. Nitric Oxide - Biology and Chemistry, 2019, 87, 1-9.	1.2	24
36	Long-term impact of cadmium shows little damage in Scenedesmus acutiformis cultures. Algal Research, 2017, 25, 184-190.	2.4	22

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37	Comparison of oxidative stress in four Tillandsia species exposed to cadmium. Plant Physiology and Biochemistry, 2014, 80, 33-40.	2.8	21
38	DNA hypomethylation concomitant with the overproduction of ROS induced by naphthoquinone juglone on tobacco BY-2 suspension cells. Environmental and Experimental Botany, 2015, 113, 28-39.	2.0	21
39	Turkish Scorzonera Species Extracts Attenuate Cytokine Secretion via Inhibition of NF-Î°B Activation, Showing Anti-Inflammatory Effect in Vitro. Molecules, 2016, 21, 43.	1.7	21
40	Fluorescence microscopy as a tool for visualization of metal-induced oxidative stress in plants. Acta Physiologiae Plantarum, 2017, 39, 1.	1.0	21
41	Sensitivity of physiological and biochemical endpoints in early ontogenetic stages of crops under diclofenac and paracetamol treatments. Environmental Science and Pollution Research, 2019, 26, 3965-3979.	2.7	21
42	Oxidative stress, uptake and bioconversion of 5-fluorouracil in algae. Chemosphere, 2014, 100, 116-123.	4.2	20
43	Amino Acid Profiling of Zinc Resistant Prostate Cancer Cell Lines: Associations With Cancer Progression. Prostate, 2017, 77, 604-616.	1.2	19
44	Metallothioneins in Prion- and Amyloid-Related Diseases. Journal of Alzheimer's Disease, 2016, 51, 637-656.	1.2	18
45	Metabolic responses of Ulva compressa to single and combined heavy metals. Chemosphere, 2018, 213, 384-394.	4.2	18
46	Toxicity of Naturally-Contaminated Manganese Soil to Selected Crops. Journal of Agricultural and Food Chemistry, 2014, 62, 7287-7296.	2.4	17
47	Impact of humic acid on the accumulation of metals by microalgae. Environmental Science and Pollution Research, 2018, 25, 10792-10798.	2.7	17
48	Electrochemical Investigation of Strontiumâ€“Metallothionein Interactions â€“ Analysis of Serum and Urine of Patients with Osteoporosis. Electroanalysis, 2009, 21, 650-656.	1.5	16
49	Root response in Pisum sativum under naproxen stress: Morpho-anatomical, cytological, and biochemical traits. Chemosphere, 2020, 258, 127411.	4.2	16
50	Calcium signaling affects migration and proliferation differently in individual cancer cells due to nifedipine treatment. Biochemical Pharmacology, 2020, 171, 113695.	2.0	15
51	Microfluidic robotic device coupled with electrochemical sensor field for handling of paramagnetic micro-particles as a tool for determination of plant mRNA. Mikrochimica Acta, 2011, 173, 189-197.	2.5	14
52	Glyphosate does not show higher phytotoxicity than cadmium: Cross talk and metabolic changes in common herb. Journal of Hazardous Materials, 2020, 383, 121250.	6.5	13
53	Calcium has protective impact on cadmium-induced toxicity in lichens. Plant Physiology and Biochemistry, 2020, 156, 591-599.	2.8	13
54	Molecular response of 4T1-induced mouse mammary tumours and healthy tissues to zinc treatment. International Journal of Oncology, 2015, 46, 1810-1818.	1.4	12

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55	Nitrogen nutrition modulates oxidative stress and metabolite production in Hypericum perforatum. Protoplasma, 2020, 257, 439-447.	1.0	12
56	Novel Mitochondria-targeted Drugs for Cancer Therapy. Mini-Reviews in Medicinal Chemistry, 2021, 21, 816-832.	1.1	12
57	The Study of Naphthoquinones and Their Complexes with DNA by Using Raman Spectroscopy and Surface Enhanced Raman Spectroscopy: New Insight into Interactions of DNA with Plant Secondary Metabolites. BioMed Research International, 2014, 2014, 1-12.	0.9	11
58	Haloperidol Affects Plasticity of Differentiated NG-108 Cells Through Ïƒ1R/IP3R1 Complex. Cellular and Molecular Neurobiology, 2018, 38, 181-194.	1.7	11
59	Establishment of oral squamous cell carcinoma cell line and magnetic bead-based isolation and characterization of its CD90/CD44 subpopulations. Oncotarget, 2017, 8, 66254-66269.	0.8	11
60	Metabolic responses of terrestrial macrolichens to nickel. Plant Physiology and Biochemistry, 2018, 127, 32-38.	2.8	10
61	Effect of Ni ion release on the cells in contact with NiTi alloys. Environmental Science and Pollution Research, 2020, 27, 7934-7942.	2.7	10
62	Chromium speciation and biochemical changes vary in relation to plant ploidy. Journal of Inorganic Biochemistry, 2015, 145, 70-78.	1.5	9
63	Dandelion is more tolerant to cadmium than to nickel excess. Chemosphere, 2019, 224, 884-891.	4.2	9
64	Long-term impact of cadmium in protonema cultures of Physcomitrella patens. Ecotoxicology and Environmental Safety, 2020, 193, 110333.	2.9	9
65	Metabolic changes induced by manganese in chamomile. Plant Physiology and Biochemistry, 2018, 133, 127-133.	2.8	8
66	Possible use of a Nicotiana tabacum â€˜Bright Yellow 2â€™ cell suspension as a model to assess phytotoxicity of pharmaceuticals (diclofenac). Ecotoxicology and Environmental Safety, 2019, 182, 109369.	2.9	8
67	Slow sulfide donor GYY4137 potentiates effect of paclitaxel on colorectal carcinoma cells. European Journal of Pharmacology, 2022, 922, 174875.	1.7	8
68	A New Approach how to Define the Coefficient of Electroactivity of Adenine and Its Twelve Derivatives Using Flow Injection Analysis with Amperometric Detection. Electroanalysis, 2011, 23, 1556-1567.	1.5	6
69	Impact of Anions, Cations, and pH on Manganese Accumulation and Toxicity in the Green Alga Scenedesmus quadricauda. Water, Air, and Soil Pollution, 2016, 227, 1.	1.1	6
70	Uptake and phytotoxicity of lead are affected by nitrate nutrition and phenolic metabolism. Environmental and Experimental Botany, 2020, 178, 104158.	2.0	6
71	The role of sulphur in cadmium(II) ions detoxification demonstrated in in vitro model: Dionaea muscipula Ell.. Environmental Chemistry Letters, 2009, 7, 353-361.	8.3	5
72	Nitrogen modulates strontium uptake and toxicity in Hypericum perforatum plants. Journal of Hazardous Materials, 2022, 425, 127894.	6.5	4

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73	Involvement of calcium signaling in different types of cell death in cancer. Neoplasma, 2022, 69, 264-273.	0.7	4
74	Fatty Acid Supplementation Affects Skin Wound Healing in a Rat Model. Nutrients, 2022, 14, 2245.	1.7	4
75	CBD is not converted to THC in rats: A framework interpretation and discussion. European Neuropsychopharmacology, 2021, 50, 135-136.	0.3	3
76	Ni and TiO2 nanoparticles cause adhesion and cytoskeletal changes in human osteoblasts. Environmental Science and Pollution Research, 2021, 28, 6018-6029.	2.7	1
77	Application of BY-2 cell model in evaluating an effect of newly prepared potential calcium channel blockers. Pakistan Journal of Pharmaceutical Sciences, 2015, 28, 1281-93.	0.2	0