Petr Smykal

List of Publications by Year in descending order

84 papers	3,407 citations	172457 29 h-index	161849 54 g-index
92 all docs	92 docs citations	92 times ranked	3099 citing authors

#	Article	IF	Citations
1	Endangered Wild Crop Relatives of the Fertile Crescent. , 2022, , 673-682.		2
2	Combination of electronically driven micromanipulation with laser desorption ionization mass spectrometry â€“ The unique tool for analysis of seed coat layers and revealing the mystery of seed dormancy. Talanta, 2022, 242, 123303.	5.5	4
3	The loss of polyphenol oxidase function is associated with hilum pigmentation and has been selected during pea domestication. New Phytologist, 2022, 235, 1807-1821.	7.3	14
4	The Key to the Future Lies in the Past: Insights from Grain Legume Domestication and Improvement Should Inform Future Breeding Strategies. Plant and Cell Physiology, 2022, 63, 1554-1572.	3.1	13
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19	Genome-Wide Association Mapping for Agronomic and Seed Quality Traits of Field Pea (Pisum sativum) Tj ETQq1 1 0.784314 rgBT /O	3.6	85
20	Utilization of atmospheric solids analysis probe mass spectrometry for analysis of fatty acids on seed surface. Analytical and Bioanalytical Chemistry, 2019, 411, 1169-1180.	3.7	8
21	Advances in pea breeding. Burleigh Dodds Series in Agricultural Science, 2019, , 575-606.	0.2	10
22	Variation in wild pea (Pisum sativumsubsp.elatius) seed dormancy and its relationship to the environment and seed coat traits. PeerJ, 2019, 7, e6263.	2.0	38
23	Eco-geographic distribution of Cicer isauricum P.H. Davis and threats to the species. Genetic Resources and Crop Evolution, 2018, 65, 67-77.	1.6	9
24	Molecular Evidence for Two Domestication Events in the Pea Crop. Genes, 2018, 9, 535.	2.4	42
25	The Impact of Genetic Changes during Crop Domestication on Healthy Food Development. Agronomy, 2018, 8, 26.	3.0	19
26	The Impact of Genetic Changes during Crop Domestication. Agronomy, 2018, 8, 119.	3.0	146
27	Genetic structure of wild pea (Pisum sativum subsp. elatius) populations in the northern part of the Fertile Crescent reflects moderate cross-pollination and strong effect of geographic but not environmental distance. PLoS ONE, 2018, 13, e0194056.	2.5	62
28	Spatial patterns and intraspecific diversity of the glacial relict legume species Vavilovia formosa (Stev.) Fed. in Eurasia. Plant Systematics and Evolution, 2017, 303, 267-282.	0.9	16
29	Genomic diversity and macroecology of the crop wild relatives of domesticated pea. Scientific Reports, 2017, 7, 17384.	3.3	59
30	Patterns of Genetic Structure and Linkage Disequilibrium in a Large Collection of Pea Germplasm. G3: Genes, Genomes, Genetics, 2017, 7, 2461-2471.	1.8	65
31	A Combined Comparative Transcriptomic, Metabolomic, and Anatomical Analyses of Two Key Domestication Traits: Pod Dehiscence and Seed Dormancy in Pea (Pisum sp.). Frontiers in Plant Science, 2017, 8, 542.	3.6	53
32	Towards Better Understanding of Pea Seed Dormancy Using Laser Desorption/Ionization Mass Spectrometry. International Journal of Molecular Sciences, 2017, 18, 2196.	4.1	17
33	Addendum: CechovÃ¡, M. et al. Towards Better Understanding of Pea Seed Dormancy Using Laser Desorption/Ionization Mass Spectrometry. Int. J. Mol. Sci. 2017, 18, 2196. International Journal of Molecular Sciences, 2017, 18, 2771.	4.1	0
34	ANALYSIS OF THE LOCAL ENVIRONMENTAL CONDITIONS OF LEGUMES USING GLOBAL DATASETS. , 2017, , .		0
35	From Mendelâ€™s discovery on pea to todayâ€™s plant genetics and breeding. Theoretical and Applied Genetics, 2016, 129, 2267-2280.	3.6	26
36	Developing biotechnology tools for â€˜beautifulâ€™ vavilovia (Vavilovia formosa), a legume crop wild relative with taxonomic and agronomic potential. Plant Cell, Tissue and Organ Culture, 2016, 127, 637-648.	2.3	13

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37	Legume Crops Phylogeny and Genetic Diversity for Science and Breeding. Critical Reviews in Plant Sciences, 2015, 34, 43-104.	5.7	248
38	Identification of <scp>QTL</scp> controlling high levels of partial resistance to Fusarium solani f. sp. pisi in pea. Plant Breeding, 2015, 134, 446-453.	1.9	30
39	Pea. Handbook of Plant Breeding, 2015, , 37-83.	0.1	25
40	Pea (Pisum sativum L.) in biology prior and after Mendel's discovery. Czech Journal of Genetics and Plant Breeding, 2014, 50, 52-64.	0.8	20
41	Genetic diversity of Albanian pea (Pisum sativum L.) landraces assessed by morphological traits and molecular markers. Czech Journal of Genetics and Plant Breeding, 2014, 50, 177-184.	0.8	17
42	Gregor J. Mendel - genetics founding father. Czech Journal of Genetics and Plant Breeding, 2014, 50, 43-51.	0.8	12
43	The role of the testa during development and in establishment of dormancy of the legume seed. Frontiers in Plant Science, 2014, 5, 351.	3.6	154
44	Beauty will save the world, but will the world save beauty? The case of the highly endangered Vavilovia formosa (Stev.) Fed.. Planta, 2014, 240, 1139-1146.	3.2	14
45	Advances in Pea Genomics. , 2014, , 301-337.		5
46	A comparative study of ancient DNA isolated from charred pea (Pisum sativum L.) seeds from an Early Iron Age settlement in southeast Serbia: inference for pea domestication. Genetic Resources and Crop Evolution, 2014, 61, 1533-1544.	1.6	19
47	Geographical Gradient of the eIF4E Alleles Conferring Resistance to Potyviruses in Pea (Pisum) Germplasm. PLoS ONE, 2014, 9, e90394.	2.5	20
48	The bicentenary of the research on â€˜beautifulâ€™ vavilovia (Vavilovia formosa), a legume crop wild relative with taxonomic and agronomic potential. Botanical Journal of the Linnean Society, 2013, 172, 524-531.	1.6	28
49	Enhanced accumulation of cadmium in Linum usitatissimum L. plants due to overproduction of metallothionein Î±-domain as a fusion to Î²-glucuronidase protein. Plant Cell, Tissue and Organ Culture, 2013, 112, 321-330.	2.3	33
50	Userâ€friendly markers linked to <scp>F</scp>usarium wilt race 1 resistance <scp>Fw</scp> gene for markerâ€assisted selection in pea. Plant Breeding, 2013, 132, 642-648.	1.9	22
51	Peas. , 2013, , 41-80.		19
52	Core Hunter II: fast core subset selection based on multiple genetic diversity measures using Mixed Replica search. BMC Bioinformatics, 2012, 13, 312.	2.6	52
53	Pea (Pisum sativum L.) in the Genomic Era. Agronomy, 2012, 2, 74-115.	3.0	172
54	Molecular analysis of temporal genetic structuring in pea (Pisum sativum L.) cultivars bred in the Czech Republic and in former Czechoslovakia since the mid-20th century. Czech Journal of Genetics and Plant Breeding, 2012, 48, 61-73.	0.8	13

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55	Genetic diversity in European Pisum germplasm collections. Theoretical and Applied Genetics, 2012, 125, 367-380.	3.6	43
56	Phylogeny, phylogeography and genetic diversity of the Pisum genus. Plant Genetic Resources: Characterisation and Utilisation, 2011, 9, 4-18.	0.8	128
57	Legume genetic resources: management, diversity assessment, and utilization in crop improvement. Euphytica, 2011, 180, 27-47.	1.2	47
58	Molecular evidence of genetic diversity changes in pea (Pisum sativum L.) germplasm after long-term maintenance. Genetic Resources and Crop Evolution, 2011, 58, 439-451.	1.6	28
59	Genetic diversity of cultivated flax (Linum usitatissimum L.) germplasm assessed by retrotransposon-based markers. Theoretical and Applied Genetics, 2011, 122, 1385-1397.	3.6	127
60	Estimation of pea (Pisum sativum L.) microsatellite mutation rate based on pedigree and single-seed descent analyses. Journal of Applied Genetics, 2011, 52, 391-401.	1.9	9
61	The legume manifesto: (Net)workers on Fabaceae, unite!. Ratarstvo I Povrtarstvo, 2011, 48, 253-258.	0.5	5
62	iPBS: a universal method for DNA fingerprinting and retrotransposon isolation. Theoretical and Applied Genetics, 2010, 121, 1419-1430.	3.6	223
63	Marker assisted pea breeding: eIF4E allele specific markers to pea seed-borne mosaic virus (PSbMV) resistance. Molecular Breeding, 2010, 26, 425-438.	2.1	28
64	Reports on establishing an ex situ site for â€˜beautifulâ€™ vavilovia (Vavilovia formosa) in Armenia. Genetic Resources and Crop Evolution, 2010, 57, 1127-1134.	1.6	21
65	The genetic diversity and evolution of field pea (Pisum) studied by high throughput retrotransposon based insertion polymorphism (RBIP) marker analysis. BMC Evolutionary Biology, 2010, 10, 44.	3.2	169
66	Effect of environmental and genetic factors on the stability of pea (Pisum sativum L.) isozyme and DNA markers. Czech Journal of Genetics and Plant Breeding, 2009, 45, 57-71.	0.8	3
67	Evolutionary conserved lineage of Angela-family retrotransposons as a genome-wide microsatellite repeat dispersal agent. Heredity, 2009, 103, 157-167.	2.6	52
68	Variety discrimination in pea (Pisum sativum L.) by molecular, biochemical and morphological markers. Journal of Applied Genetics, 2008, 49, 155-166.	1.9	53
69	Genetic diversity and population structure of pea (Pisum sativum L.) varieties derived from combined retrotransposon, microsatellite and morphological marker analysis. Theoretical and Applied Genetics, 2008, 117, 413-424.	3.6	85
70	Assessment of genetic and epigenetic stability in long-term in vitro shoot culture of pea (Pisum) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 14	5.6	106
71	Flowering of strict photoperiodic Nicotiana varieties in non-inductive conditions by transgenic approaches. Plant Molecular Biology, 2007, 65, 233-242.	3.9	42
72	Development of an efficient retrotransposon-based fingerprinting method for rapid pea variety identification. Journal of Applied Genetics, 2006, 47, 221-230.	1.9	51

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73	Agrobacterium-mediated transformation of Pisum sativum in vitro and in vivo. Biologia Plantarum, 2005, 49, 361-370.	1.9	33
74	Modulation of flowering responses in different Nicotiana varieties. Plant Molecular Biology, 2004, 55, 253-262.	3.9	20
75	Glycoproteins 66 and 69 kDa of pollen tube wall: properties and distribution in angiosperms. Journal of Plant Physiology, 2001, 158, 1367-1374.	3.5	6
76	Androgenesis: Affecting the fate of the male gametophyte. Physiologia Plantarum, 2001, 111, 1-8.	5.2	70
77	Chaperone activity of tobacco HSP18, a small heat-shock protein, is inhibited by ATP. Plant Journal, 2000, 23, 703-713.	5.7	45
78	High-molecular-mass complexes formed in vivo contain smHSPs and HSP70 and display chaperone-like activity. FEBS Journal, 2000, 267, 2195-2207.	0.2	30
79	Pollen Embryogenesis - The Stress Mediated Switch from Gametophytic to Sporophytic Development. Current Status and Future Prospects. Biologia Plantarum, 2000, 43, 481-489.	1.9	62
80	A novel Brassica napus L. pollen-specific gene belongs to a nucleic-acid-binding protein family. Sexual Plant Reproduction, 2000, 13, 127-134.	2.2	3
81	Isolation of a Brassica napus L. cDNA encoding a putative high-mobility-group HMG I/Y protein. Plant Science, 2000, 159, 197-204.	3.6	7
82	Molecular characterization of a calmodulin-like Dictyostelium protein CalB. FEBS Letters, 2000, 473, 323-327.	2.8	16
83	Aleksandar MikiÄ‡, the legume (re)searcher. , 0, , .		0
84	How Could the Use of Crop Wild Relatives in Breeding Increase the Adaptation of Crops to Marginal Environments?. Frontiers in Plant Science, 0, 13, .	3.6	22