Ive De Smet

List of Publications by Year
in descending order

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116 papers	11,983 citations	32410 55 h-index	33145 104 g-index
130 all docs	130 docs citations	130 times ranked	12399 citing authors

#	Article	IF	Citations
1	Auxin-Responsive (Phospho)proteome Analysis Reveals Key Biological Processes and Signaling Associated with Shoot-Borne Crown Root Development in Rice. Plant and Cell Physiology, 2023, 63, 1968-1979.	1.5	5
2	Stress granuleâ€associated TaMBF1c confers thermotolerance through regulating specific mRNA translation in wheat (<i>Triticum aestivum</i>). New Phytologist, 2022, 233, 1719-1731.	3.5	31
3	ROPGAP-dependent interaction between brassinosteroid and ROP2-GTPase signaling controls pavement cell shape in Arabidopsis. Current Biology, 2022, 32, 518-531.e6.	1.8	24
4	Auxin analog-induced Ca2+ signaling is independent of inhibition of endosomal aggregation in Arabidopsis roots. Journal of Experimental Botany, 2022, , .	2.4	4
5	Proteome-wide cellular thermal shift assay revealsÂunexpected cross-talk between brassinosteroid and auxin signaling. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2118220119.	3.3	15
6	Wandering between hot and cold: temperature dose-dependent responses. Trends in Plant Science, 2022, 27, 1124-1133.	4.3	8
7	Multiple cellular compartments engagement in Nicotiana benthamiana-peanut stunt virus-satRNA interactions revealed by systems biology approach. Plant Cell Reports, 2021, 40, 1247-1267.	2.8	4
8	The membrane-localized protein kinase MAP4K4/TOT3 regulates thermomorphogenesis. Nature Communications, 2021, 12, 2842.	5.8	30
9	Getting to the root of belowground high temperature responses in plants. Journal of Experimental Botany, 2021, , .	2.4	23
10	The heat is on: how crop growth, development, and yield respond to high temperature. Journal of Experimental Botany, 2021, , .	2.4	21
11	Local regulation of auxin transport in rootâ€apex transition zone mediates aluminiumâ€induced Arabidopsis rootâ€growth inhibition. Plant Journal, 2021, 108, 55-66.	2.8	14
12	The Arabidopsis Root Tip (Phospho)Proteomes at Growth-Promoting versus Growth-Repressing Conditions Reveal Novel Root Growth Regulators. Cells, 2021, 10, 1665.	1.8	8
13	Protein kinase and phosphatase control of plant temperature responses. Journal of Experimental Botany, 2021, , .	2.4	6
14	A Comprehensive Phylogenetic Analysis of the MAP4K Family in the Green Lineage. Frontiers in Plant Science, 2021, 12, 650171.	1.7	1
15	Warm temperature triggers JOX and ST2A-mediated jasmonate catabolism to promote plant growth. Nature Communications, 2021, 12, 4804.	5.8	20
16	Unraveling the MAX2 Protein Network in Arabidopsis thaliana: Identification of the Protein Phosphatase PAPP5 as a Novel MAX2 Interactor. Molecular and Cellular Proteomics, 2021, 20, 100040.	2.5	11
17	The Collaboration Between Art History and Genetics â€" An Unlikely Marriage of Disciplines. Frontiers in Plant Science, 2021, 12, 757439.	1.7	2
18	Nonâ€canonical <scp>AUX</scp> / <scp>IAA</scp> protein <scp>IAA</scp> 33 competes with canonical <scp>AUX</scp> / <scp>IAA</scp> repressor <scp>IAA</scp> 5 to negatively regulate auxin signaling. EMBO Journal, 2020, 39, e101515.	3.5	62

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19	The Cyclin CYCA3;4 Is a Postprophase Target of the APC/C^{CCS52A2} E3-Ligase Controlling Formative Cell Divisions in Arabidopsis. Plant Cell, 2020, 32, 2979-2996.	3.1	22
20	Genomes on Canvas: Artistâ€™s Perspective on Evolution of Plant-Based Foods. Trends in Plant Science, 2020, 25, 717-719.	4.3	2
21	Expanding the Mitogen-Activated Protein Kinase (MAPK) Universe: An Update on MAP4Ks. Frontiers in Plant Science, 2020, 11, 1220.	1.7	7
22	The CEP5 Peptide Promotes Abiotic Stress Tolerance, As Revealed by Quantitative Proteomics, and Attenuates the AUX/IAA Equilibrium in Arabidopsis. Molecular and Cellular Proteomics, 2020, 19, 1248-1262.	2.5	35
23	Developmental Plasticity at High Temperature. Plant Physiology, 2019, 181, 399-411.	2.3	55
24	Watermelons versus Melons: A Matter of Taste. Trends in Plant Science, 2019, 24, 973-976.	4.3	4
25	The Plant <scp>PTM</scp> Viewer, a central resource for exploring plant protein modifications. Plant Journal, 2019, 99, 752-762.	2.8	97
26	Capturing the phosphorylation and protein interaction landscape of the plant TOR kinase. Nature Plants, 2019, 5, 316-327.	4.7	205
27	EXPANSIN A1-mediated radial swelling of pericycle cells positions anticlinal cell divisions during lateral root initiation. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 8597-8602.	3.3	71
28	Developmental Programming of Thermonastic Leaf Movement. Plant Physiology, 2019, 180, 1185-1197.	2.3	70
29	Feeling the Heat: Searching for Plant Thermosensors. Trends in Plant Science, 2019, 24, 210-219.	4.3	89
30	The Strawberry Tales: Size Matters. Trends in Plant Science, 2019, 24, 1-3.	4.3	10
31	Look Closely, the Beautiful May Be Small: Precursor-Derived Peptides in Plants. Annual Review of Plant Biology, 2019, 70, 153-186.	8.6	119
32	The Auxin-Regulated CrRLK1L Kinase ERULUS Controls Cell Wall Composition during Root Hair Tip Growth. Current Biology, 2018, 28, 722-732.e6.	1.8	113
33	Arabidopsis research requires a critical re-evaluation of genetic tools. Journal of Experimental Botany, 2018, 69, 3541-3544.	2.4	9
34	Proteome Analysis of Arabidopsis Roots. Methods in Molecular Biology, 2018, 1761, 263-274.	0.4	2
35	The Xerobranching Response Represses Lateral Root Formation When Roots Are Not in Contact with Water. Current Biology, 2018, 28, 3165-3173.e5.	1.8	94
36	Protein Language: Post-Translational Modifications Talking to Each Other. Trends in Plant Science, 2018, 23, 1068-1080.	4.3	199

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37	Peanut Stunt Virus and Its Satellite RNA Trigger Changes in Phosphorylation in N. benthamiana Infected Plants at the Early Stage of the Infection. International Journal of Molecular Sciences, 2018, 19, 3223.	1.8	7
38	Temperature-induced changes in the wheat phosphoproteome reveal temperature-regulated interconversion of phosphoforms. Journal of Experimental Botany, 2018, 69, 4609-4624.	2.4	30
39	Receptor Kinase THESEUS1 Is a Rapid Alkalinization Factor 34 Receptor in Arabidopsis. Current Biology, 2018, 28, 2452-2458.e4.	1.8	146
40	Early mannitol-triggered changes in the Arabidopsis leaf (phospho)proteome reveal growth regulators. Journal of Experimental Botany, 2018, 69, 4591-4607.	2.4	31
41	Transcriptional integration of paternal and maternal factors in the <i>Arabidopsis</i> zygote. Genes and Development, 2017, 31, 617-627.	2.7	114
42	Synergistic action of auxin and cytokinin mediates aluminumâ€induced root growth inhibition in <i>Arabidopsis</i>. EMBO Reports, 2017, 18, 1213-1230.	2.0	80
43	From early farmers to Norman Borlaug â€" the making of modern wheat. Current Biology, 2017, 27, R858-R862.	1.8	24
44	Proteome Profiling of Wheat Shoots from Different Cultivars. Frontiers in Plant Science, 2017, 8, 332.	1.7	16
45	Tips and Tricks for Exogenous Application of Synthetic Post-translationally Modified Peptides to Plants. Methods in Molecular Biology, 2017, 1497, 19-28.	0.4	1
46	RALFL34 regulates formative cell divisions in Arabidopsis pericycle during lateral root initiation. Journal of Experimental Botany, 2016, 67, 4863-4875.	2.4	66
47	The growing story of (ARABIDOPSIS) CRINKLY 4. Journal of Experimental Botany, 2016, 67, 4835-4847.	2.4	20
48	Down the Rabbit Holeâ€"Carrots, Genetics and Art. Trends in Plant Science, 2016, 21, 895-898.	4.3	5
49	CEP5 and XIP1/CEPR1 regulate lateral root initiation in Arabidopsis. Journal of Experimental Botany, 2016, 67, 4889-4899.	2.4	81
50	Plant peptides â€" taking them to the next level. Journal of Experimental Botany, 2016, 67, 4791-4795.	2.4	24
51	Up-to-Date Workflow for Plant (Phospho)proteomics Identifies Differential Drought-Responsive Phosphorylation Events in Maize Leaves. Journal of Proteome Research, 2016, 15, 4304-4317.	1.8	50
52	Fine-Tuning Development Through Antagonistic Peptides: An Emerging Theme. Trends in Plant Science, 2016, 21, 991-993.	4.3	12
53	PP2A-3 interacts with ACR4 and regulates formative cell division in the <i>Arabidopsis</i> root. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 1447-1452.	3.3	43
54	The <i>Arabidopsis thaliana</i> CLAVATA3/EMBRYO-SURROUNDING REGION 26 (CLE26) peptide is able to alter root architecture of <i>Solanum lycopersicum </i>and <i>Brassica napus</i>. Plant Signaling and Behavior, 2016, 11, e1118598.	1.2	8

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55	Itâ€™s Time for Some â€œSiteâ€•Seeing: Novel Tools to Monitor the Ubiquitin Landscape in <i>Arabidopsis thaliana</i>. Plant Cell, 2016, 28, 6-16.	3.1	84
56	Phosphoproteomics-based peptide ligand-receptor kinase pairing. Commentary on: Ã¢â‚¬Å“A peptide hormone and its receptor protein kinase regulate plant cell expansionÃ¢â‚¬Â• Frontiers in Plant Science, 2015, 6, 224.	1.7	9
57	A phylogenetic approach to study the origin and evolution of the CRINKLY4 family. Frontiers in Plant Science, 2015, 6, 880.	1.7	28
58	Antagonistic peptide technology for functional dissection of CLE peptides revisited. Journal of Experimental Botany, 2015, 66, 5367-5374.	2.4	27
59	Modulation of<i>Arabidopsis</i>and monocot root architecture by CLAVATA3/EMBRYO SURROUNDING REGION 26 peptide. Journal of Experimental Botany, 2015, 66, 5229-5243.	2.4	62
60	The Plant Peptidome: An Expanding Repertoire of Structural Features and Biological Functions. Plant Cell, 2015, 27, 2095-2118.	3.1	292
61	Plant hormone signalling through the eye of the mass spectrometer. Proteomics, 2015, 15, 1113-1126.	1.3	13
62	Omics and modelling approaches for understanding regulation of asymmetric cell divisions in arabidopsis and other angiosperm plants. Annals of Botany, 2014, 113, 1083-1105.	1.4	38
63	Shaping a root system: regulating lateral versus primary root growth. Trends in Plant Science, 2014, 19, 426-431.	4.3	172
64	A secreted peptide acts on BIN2-mediated phosphorylation of ARFs to potentiate auxin response during lateral root development. Nature Cell Biology, 2014, 16, 66-76.	4.6	245
65	Designer crops: optimal root system architecture for nutrient acquisition. Trends in Biotechnology, 2014, 32, 597-598.	4.9	66
66	Cell type-specific transcriptome analysis in the early <i>Arabidopsis thaliana</i> embryo. Development (Cambridge), 2014, 141, 4831-4840.	1.2	69
67	A COFRADIC Protocol To Study Protein Ubiquitination. Journal of Proteome Research, 2014, 13, 3107-3113.	1.8	57
68	Understanding the RALF family: a tale of many species. Trends in Plant Science, 2014, 19, 664-671.	4.3	131
69	Evolutionary Aspects of Auxin Signalling. , 2014, , 265-290.		4
70	Pericycle. Current Biology, 2014, 24, R378-R379.	1.8	32
71	Development: CLAVATA1 Joins the Club of Root Stem Cell Regulators. Current Biology, 2013, 23, R245-R247.	1.8	7
72	Tightly controlled WRKY23 expression mediates Arabidopsis embryo development. EMBO Reports, 2013, 14, 1136-1142.	2.0	61

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73	Inference of the Genetic Network Regulating Lateral Root Initiation in Arabidopsis thaliana. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2013, 10, 50-60.	1.9	6
74	The CEP family in land plants: evolutionary analyses, expression studies, and role in Arabidopsis shoot development. Journal of Experimental Botany, 2013, 64, 5371-5381.	2.4	92
75	Localised ABA signalling mediates root growth plasticity. Trends in Plant Science, 2013, 18, 533-535.	4.3	42
76	Message in a bottle: small signalling peptide outputs during growth and development. Journal of Experimental Botany, 2013, 64, 5281-5296.	2.4	104
77	Synthetic molecules: helping to unravel plant signal transduction. Journal of Chemical Biology, 2013, 6, 43-50.	2.2	16
78	Lateral root development in Arabidopsis: fifty shades of auxin. Trends in Plant Science, 2013, 18, 450-458.	4.3	536
79	Transcriptional repression of BODENLOS by HD-ZIP transcription factor HB5 in Arabidopsis thaliana. Journal of Experimental Botany, 2013, 64, 3009-3019.	2.4	35
80	Lateral root morphogenesis is dependent on the mechanical properties of the overlaying tissues. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 5229-5234.	3.3	233
81	Sequential induction of auxin efflux and influx carriers regulates lateral root emergence. Molecular Systems Biology, 2013, 9, 699.	3.2	104
82	<i>In silico</i>analyses of pericycle cell populations reinforce their relation with associated vasculature in<i>Arabidopsis</i>. Philosophical Transactions of the Royal Society B: Biological Sciences, 2012, 367, 1479-1488.	1.8	27
83	Analyzing Lateral Root Development: How to Move Forward. Plant Cell, 2012, 24, 15-20.	3.1	125
84	Transcription factor WRKY23 assists auxin distribution patterns during <i>Arabidopsis</i> root development through local control on flavonol biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 1554-1559.	3.3	184
85	Root system architecture: insights from<i>Arabidopsis</i>and cereal crops. Philosophical Transactions of the Royal Society B: Biological Sciences, 2012, 367, 1441-1452.	1.8	366
86	Tackling Drought Stress: RECEPTOR-LIKE KINASES Present New Approaches. Plant Cell, 2012, 24, 2262-2278.	3.1	155
87	Systems Analysis of Plant Functional, Transcriptional, Physical Interaction, and Metabolic Networks. Plant Cell, 2012, 24, 3859-3875.	3.1	96
88	Small Signaling Peptides in <i>Arabidopsis</i> Development: How Cells Communicate Over a Short Distance. Plant Cell, 2012, 24, 3198-3217.	3.1	229
89	Lateral root initiation: one step at a time. New Phytologist, 2012, 193, 867-873.	3.5	139
90	<i>Arabidopsis</i>Î± Aurora Kinases Function in Formative Cell Division Plane Orientation. Plant Cell, 2011, 23, 4013-4024.	3.1	97

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91	Auxin triggers a genetic switch. Nature Cell Biology, 2011, 13, 611-615.	4.6	108
92	Asymmetric cell division in land plants and algae: the driving force for differentiation. Nature Reviews Molecular Cell Biology, 2011, 12, 177-188.	16.1	165
93	Unraveling the Evolution of Auxin Signaling Â Â. Plant Physiology, 2011, 155, 209-221.	2.3	140
94	Embryogenesis â€“ the humble beginnings of plant life. Plant Journal, 2010, 61, 959-970.	2.8	132
95	ABA promotes quiescence of the quiescent centre and suppresses stem cell differentiation in the Arabidopsis primary root meristem. Plant Journal, 2010, 64, 764-774.	2.8	182
96	Bimodular auxin response controls organogenesis in <i>Arabidopsis</i>. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 2705-2710.	3.3	271
97	Multimodular auxin response controls lateral root development in<i>Arabidopsis</i>. Plant Signaling and Behavior, 2010, 5, 580-582.	1.2	25
98	The roots of a new green revolution. Trends in Plant Science, 2010, 15, 600-607.	4.3	390
99	Extensive expression regulation and lack of heterologous enzymatic activity of the Class II trehalose metabolism proteins from <i>Arabidopsis thaliana</i>. Plant, Cell and Environment, 2009, 32, 1015-1032.	2.8	131
100	Receptor-like kinases shape the plant. Nature Cell Biology, 2009, 11, 1166-1173.	4.6	261
101	Auxin signaling in algal lineages: fact or myth?. Trends in Plant Science, 2009, 14, 182-188.	4.3	121
102	The auxin influx carrier LAX3 promotes lateral root emergence. Nature Cell Biology, 2008, 10, 946-954.	4.6	715
103	Receptor-Like Kinase ACR4 Restricts Formative Cell Divisions in the <i>Arabidopsis</i> Root. Science, 2008, 322, 594-597.	6.0	342
104	The Evolving Complexity of the Auxin Pathway. Plant Cell, 2008, 20, 1738-1746.	3.1	141
105	Diarch Symmetry of the Vascular Bundle in Arabidopsis Root Encompasses the Pericycle and Is Reflected in Distich Lateral Root Initiation. Plant Physiology, 2008, 146, 140-148.	2.3	163
106	Auxin-dependent regulation of lateral root positioning in the basal meristem of Arabidopsis. Development (Cambridge), 2007, 134, 681-690.	1.2	540
107	Patterning the axis in plants â€“ auxin in control. Current Opinion in Genetics and Development, 2007, 17, 337-343.	1.5	133
108	A novel role for abscisic acid emerges from underground. Trends in Plant Science, 2006, 11, 434-439.	4.3	241

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109	Lateral Root Initiation or the Birth of a New Meristem. Plant Molecular Biology, 2006, 60, 871-887.	2.0	248
110	Auxin regulation of cell cycle and its role during lateral root initiation. Physiologia Plantarum, 2005, 123, 139-146.	2.6	40
111	Cell Cycle Progression in the Pericycle Is Not Sufficient for SOLITARY ROOT/IAA14-Mediated Lateral Root Initiation in Arabidopsis thaliana Â. Plant Cell, 2005, 17, 3035-3050.	3.1	309
112	An easy and versatile embedding method for transverse sections. Journal of Microscopy, 2004, 213, 76-80.	0.8	45
113	An abscisic acid-sensitive checkpoint in lateral root development ofArabidopsis. Plant Journal, 2003, 33, 543-555.	2.8	402
114	Microbial Reduction and Precipitation of Vanadium by Shewanella oneidensis. Applied and Environmental Microbiology, 2003, 69, 3636-3639.	1.4	135
115	ABA plays a central role in mediating the regulatory effects of nitrate on root branching in Arabidopsis. Plant Journal, 2002, 28, 655-662.	2.8	347
116	The Xerobranching Response Represses Lateral Root Formation When Roots Are Not in Contact With Water. SSRN Electronic Journal, 0, , .	0.4	1