

Roberto Viola

List of Publications by Year in descending order

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97
papers

10,869
citations

41258

49
h-index

38300

95
g-index

98
all docs

98
docs citations

98
times ranked

12443
citing authors

#	ARTICLE	IF	CITATIONS
1	The genome of the domesticated apple (<i>Malus domestica</i> Borkh.). <i>Nature Genetics</i> , 2010, 42, 833-839.	9.4	1,891
2	The genome of woodland strawberry (<i>Fragaria vesca</i>). <i>Nature Genetics</i> , 2011, 43, 109-116.	9.4	1,091
3	A High Quality Draft Consensus Sequence of the Genome of a Heterozygous Grapevine Variety. <i>PLoS ONE</i> , 2007, 2, e1326.	1.1	945
4	DNA-Free Genetically Edited Grapevine and Apple Protoplast Using CRISPR/Cas9 Ribonucleoproteins. <i>Frontiers in Plant Science</i> , 2016, 7, 1904.	1.7	550
5	A Versatile Targeted Metabolomics Method for the Rapid Quantification of Multiple Classes of Phenolics in Fruits and Beverages. <i>Journal of Agricultural and Food Chemistry</i> , 2012, 60, 8831-8840.	2.4	267
6	Role of social wasps in <i>Saccharomyces cerevisiae</i> ecology and evolution. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 13398-13403.	3.3	259
7	Up-regulating the Human Intestinal Microbiome Using Whole Plant Foods, Polyphenols, and/or Fiber. <i>Journal of Agricultural and Food Chemistry</i> , 2012, 60, 8776-8782.	2.4	242
8	The Draft Genome Sequence of European Pear (<i>Pyrus communis</i> L. "Bartlett"). <i>PLoS ONE</i> , 2014, 9, e92644.	1.1	241
9	Mitochondrial DNA of <i>Vitis vinifera</i> and the Issue of Rampant Horizontal Gene Transfer. <i>Molecular Biology and Evolution</i> , 2008, 26, 99-110.	3.5	238
10	Tuberization in Potato Involves a Switch from Apoplastic to Symplastic Phloem Unloading. <i>Plant Cell</i> , 2001, 13, 385-398.	3.1	233
11	Genome-wide transcriptional analysis of grapevine berry ripening reveals a set of genes similarly modulated during three seasons and the occurrence of an oxidative burst at "raison". <i>BMC Genomics</i> , 2007, 8, 428.	1.2	216
12	Development and Validation of a 20K Single Nucleotide Polymorphism (SNP) Whole Genome Genotyping Array for Apple (<i>Malus domestica</i> Borkh.). <i>PLoS ONE</i> , 2014, 9, e110377.	1.1	200
13	Obesity and the gut microbiota: does up-regulating colonic fermentation protect against obesity and metabolic disease?. <i>Genes and Nutrition</i> , 2011, 6, 241-260.	1.2	194
14	Co-ordinated gene expression during phases of dormancy release in raspberry (<i>Rubus idaeus</i> L.) buds. <i>Journal of Experimental Botany</i> , 2007, 58, 1035-1045.	2.4	187
15	Saturated linkage map construction in <i>Rubus idaeus</i> using genotyping by sequencing and genome-independent imputation. <i>BMC Genomics</i> , 2013, 14, 2.	1.2	171
16	An evaluation of the PacBio RS platform for sequencing and de novo assembly of a chloroplast genome. <i>BMC Genomics</i> , 2013, 14, 670.	1.2	146
17	CRISPR-Cas9-mediated genome editing in apple and grapevine. <i>Nature Protocols</i> , 2018, 13, 2844-2863.	5.5	142
18	Linking Genomics and Ecology to Investigate the Complex Evolution of an Invasive <i>Drosophila</i> Pest. <i>Genome Biology and Evolution</i> , 2013, 5, 745-757.	1.1	138

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19	The unique features of starch metabolism in red algae. Proceedings of the Royal Society B: Biological Sciences, 2001, 268, 1417-1422.	1.2	128
20	Stable isotope distribution in the major metabolites of source and sink organs of <i>Solanum tuberosum</i> L.: a powerful tool in the study of metabolic partitioning in intact plants. <i>Planta</i> , 1998, 207, 241-245.	1.6	115
21	Biotechnological approaches for l-ascorbic acid production. <i>Trends in Biotechnology</i> , 2002, 20, 299-305.	4.9	111
22	Biosynthesis and Catabolism of L-Ascorbic Acid in Plants. <i>Critical Reviews in Plant Sciences</i> , 2005, 24, 167-188.	2.7	108
23	“The way to a man's heart is through his gut microbiota” dietary pro- and prebiotics for the management of cardiovascular risk. <i>Proceedings of the Nutrition Society</i> , 2014, 73, 172-185.	0.4	108
24	A reference integrated map for cultivated grapevine (<i>Vitis vinifera</i> L.) from three crosses, based on 283 SSR and 501 SNP-based markers. <i>Theoretical and Applied Genetics</i> , 2008, 117, 499-511.	1.8	97
25	Comprehensive QTL mapping survey dissects the complex fruit texture physiology in apple (<i>Malus x</i>) Tj ETQq1 1 0.784314 rgBT / Overbo	2.4	97
26	Plant microRNAs as novel immunomodulatory agents. <i>Scientific Reports</i> , 2016, 6, 25761.	1.6	93
27	Pathways of starch and sucrose biosynthesis in developing tubers of potato (<i>Solanum tuberosum</i> L.) and seeds of faba bean (<i>Vicia faba</i> L.). <i>Planta</i> , 1991, 183, 202-8.	1.6	89
28	Molecular genetics and genomics of the Rosoideae: state of the art and future perspectives. <i>Horticulture Research</i> , 2014, 1, 1.	2.9	88
29	Spatiotemporal reconstruction of the <i>Aquilegia</i> rapid radiation through next-generation sequencing of rapidly evolving cpDNA regions. <i>New Phytologist</i> , 2013, 198, 579-592.	3.5	86
30	Plastome organization and evolution of chloroplast genes in Cardamine species adapted to contrasting habitats. <i>BMC Genomics</i> , 2015, 16, 306.	1.2	83
31	Developmental changes in carbohydrate content and sucrose degrading enzymes in tuberising stolons of potato (<i>Solanum tuberosum</i>). <i>Physiologia Plantarum</i> , 1994, 90, 748-756.	2.6	82
32	Improving the Nutritional Value of Crops through Enhancement of l-Ascorbic Acid (Vitamin C) Content: A Rationale and Biotechnological Opportunities. <i>Journal of Agricultural and Food Chemistry</i> , 2005, 53, 5248-5257.	2.4	82
33	L-Ascorbic acid accumulation in fruit of <i>Ribes nigrum</i> occurs by in situ biosynthesis via the L-galactose pathway. <i>Functional Plant Biology</i> , 2007, 34, 1080.	1.1	81
34	Changes in gene expression during meristem activation processes in <i>Solanum tuberosum</i> with a focus on the regulation of an auxin response factor gene*. <i>Journal of Experimental Botany</i> , 2004, 55, 613-622.	2.4	78
35	Development of a dense SNP-based linkage map of an apple rootstock progeny using the <i>Malus Inifinium</i> whole genome genotyping array. <i>BMC Genomics</i> , 2012, 13, 203.	1.2	77
36	Long-distance transport of L-ascorbic acid in potato. <i>BMC Plant Biology</i> , 2004, 4, 16.	1.6	76

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37	The mitochondrial genome of <i>Malus domestica</i> and the import-driven hypothesis of mitochondrial genome expansion in seed plants. <i>Plant Journal</i> , 2012, 71, 615-626.	2.8	76
38	PTR-ToF-MS, A Novel, Rapid, High Sensitivity and Non-Invasive Tool to Monitor Volatile Compound Release During Fruit Post-Harvest Storage: The Case Study of Apple Ripening. <i>Food and Bioprocess Technology</i> , 2013, 6, 2831-2843.	2.6	74
39	Synthesis of L-ascorbic acid in the phloem. <i>BMC Plant Biology</i> , 2003, 3, 7.	1.6	72
40	Structure of Aspartate- β -semialdehyde Dehydrogenase from <i>Escherichia coli</i> , a Key Enzyme in the Aspartate Family of Amino Acid Biosynthesis. <i>Journal of Molecular Biology</i> , 1999, 289, 991-1002.	2.0	69
41	Symplastic connection is required for bud outgrowth following dormancy in potato (<i>Solanum</i>) Tj ETQq1 1 0.784314 rgBT /Overlock 107	2.8	66
42	Non-GMO genetically edited crop plants. <i>Trends in Biotechnology</i> , 2015, 33, 489-491.	4.9	66
43	Biosynthesis of L-ascorbic acid (vitamin C) by <i>Saccharomyces cerevisiae</i> . <i>FEMS Microbiology Letters</i> , 2000, 186, 245-250.	0.7	65
44	Identification and characterization of wild lactobacilli and pediococci from spontaneously fermented Mountain Cheese. <i>Food Microbiology</i> , 2015, 48, 123-132.	2.1	59
45	PTR-ToF-MS and data mining methods: a new tool for fruit metabolomics. <i>Metabolomics</i> , 2012, 8, 761-770.	1.4	58
46	Carbon Sequestration and Fertility after Centennial Time Scale Incorporation of Charcoal into Soil. <i>PLoS ONE</i> , 2014, 9, e91114.	1.1	55
47	Modulation of Fructokinase Activity of Potato (<i>Solanum tuberosum</i>) Results in Substantial Shifts in Tuber Metabolism. <i>Plant and Cell Physiology</i> , 2005, 46, 1103-1115.	1.5	54
48	Grapevine cell early activation of specific responses to DIMEB, a resveratrol elicitor. <i>BMC Genomics</i> , 2009, 10, 363.	1.2	54
49	White Wine Phenolics Are Absorbed and Extensively Metabolized in Humans. <i>Journal of Agricultural and Food Chemistry</i> , 2009, 57, 2711-2718.	2.4	51
50	Transgenic potato plants with strongly decreased expression of pyrophosphate:fructose-6-phosphate phosphotransferase show no visible phenotype and only minor changes in metabolic fluxes in their tubers. <i>Planta</i> , 1993, 192, 16.	1.6	47
51	Biosynthesis of γ -ascorbic acid (vitamin C) by <i>Saccharomyces cerevisiae</i> . <i>FEMS Microbiology Letters</i> , 2000, 186, 245-250.	0.7	47
52	A microplate reader assay for rapid enzymatic quantification of sugars in potato tubers. <i>Potato Research</i> , 1992, 35, 55-58.	1.2	45
53	Genetic and physical characterisation of the locus controlling columnar habit in apple (<i>Malus domestica</i> Borkh.). <i>Molecular Breeding</i> , 2013, 31, 429-440.	1.0	45
54	The use of micro-organisms for L-ascorbic acid production: current status and future perspectives. <i>Applied Microbiology and Biotechnology</i> , 2001, 56, 567-576.	1.7	43

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55	Starch metabolism in developing strawberry (<i>Fragaria x ananassa</i>) fruits. <i>Physiologia Plantarum</i> , 2004, 121, 369-376.	2.6	42
56	A survey of ellagitannin content in raspberry and blackberry cultivars grown in Trentino (Italy). <i>European Food Research and Technology</i> , 2008, 226, 817-824.	1.6	42
57	Purification and characterisation of a novel starch synthase selective for uridine 5â€²-diphosphate glucose from the red alga <i>Gracilaria tenuistipitata</i> . <i>Planta</i> , 1999, 209, 143-152.	1.6	40
58	A SNP transferability survey within the genus <i>Vitis</i> . <i>BMC Plant Biology</i> , 2008, 8, 128.	1.6	40
59	Deconstruction of the (Paleo)Polyploid Grapevine Genome Based on the Analysis of Transposition Events Involving NBS Resistance Genes. <i>PLoS ONE</i> , 2012, 7, e29762.	1.1	38
60	Fuelling genetic and metabolic exploration of <sc>C</sc>₃ bioenergy crops through the first reference transcriptome of <i><sc>A</sc>rundo donax</i><sc>L</sc>. <i>Plant Biotechnology Journal</i> , 2014, 12, 554-567.	4.1	37
61	Sequencing and assembly of highly heterozygous genome of <i>Vitis vinifera</i> L. cv Pinot Noir: Problems and solutions. <i>Journal of Biotechnology</i> , 2008, 136, 38-43.	1.9	34
62	Linking GC-MS and PTR-TOF-MS fingerprints of food samples. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2012, 118, 301-307.	1.8	30
63	EFFECT OF NUTRIENT DEPRIVATION AND RESUPPLY ON METABOLITES AND ENZYMES RELATED TO CARBON ALLOCATION IN <i>GRACILARIA TENUISTIPitata</i> (RHODOPHYTA)1. <i>Journal of Phycology</i> , 2004, 40, 305-314.	1.0	29
64	Removal of Noisy Characters from Chloroplast Genome-Scale Data Suggests Revision of Phylogenetic Placements of <i>Amborella</i> and <i>Ceratophyllum</i> . <i>Journal of Molecular Evolution</i> , 2009, 68, 197-204.	0.8	28
65	Hexose metabolism in discs excised from developing potato (<i>Solanum tuberosum</i> L.) tubers. <i>Planta</i> , 1996, 198, 186-196.	1.6	27
66	L-ascorbic acid accumulation in berries of <i>Ribes nigrum</i>L.. <i>Journal of Horticultural Science and Biotechnology</i> , 2000, 75, 409-412.	0.9	27
67	Ascorbic acid conjugates isolated from the phloem of Cucurbitaceae. <i>Phytochemistry</i> , 2008, 69, 1850-1858.	1.4	27
68	Regulated expression of a novel TCP domain transcription factor indicates an involvement in the control of meristem activation processes in <i>Solanum tuberosum</i> . <i>Journal of Experimental Botany</i> , 2004, 55, 951-953.	2.4	24
69	Structural Properties of Prokaryotic Promoter Regions Correlate with Functional Features. <i>PLoS ONE</i> , 2014, 9, e88717.	1.1	22
70	Social wasp intestines host the local phenotypic variability of <i>Saccharomyces cerevisiae</i> strains. <i>Yeast</i> , 2016, 33, 277-287.	0.8	22
71	Effect of temperature on pathways of carbohydrate metabolism in tubers of potato (<i>Solanum</i>) Tj ETQq1 1 0.784314 rgBT /Overlock 10 1.7 21	1.7	21
72	One-step reconstruction of multi-generation pedigree networks in apple (<i>Malus</i> — <i>domestica</i> Borkh.) and the parentage of Golden Delicious. <i>Molecular Breeding</i> , 2014, 34, 511-524.	1.0	21

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73	Fluoride-Induced Inhibition of Starch Biosynthesis in Developing Potato, <i>Solanum tuberosum</i> L., Tubers Is Associated with Pyrophosphate Accumulation. <i>Plant Physiology</i> , 1991, 97, 638-643.	2.3	19
74	Tuberization in Potato Involves a Switch from Apoplastic to Symplastic Phloem Unloading. <i>Plant Cell</i> , 2001, 13, 385.	3.1	19
75	Effect of sink isolation on sugar uptake and starch synthesis by potato-tuber storage parenchyma. <i>Planta</i> , 1990, 182, 113-7.	1.6	18
76	Developmental changes in carbohydrate content and sucrose degrading enzymes in tuberising stolons of potato (<i>Solanum tuberosum</i>). <i>Physiologia Plantarum</i> , 1994, 90, 748-756.	2.6	18
77	Accumulation of L-ascorbic acid in tuberising stolon tips of potato (<i>Solanum tuberosum</i> L). <i>Journal of Plant Physiology</i> , 1998, 152, 58-63.	1.6	17
78	Evaluation of SNP Data from the Malus Infinium Array Identifies Challenges for Genetic Analysis of Complex Genomes of Polyploid Origin. <i>PLoS ONE</i> , 2013, 8, e67407.	1.1	17
79	Overview of Dekkera bruxellensis behaviour in an ethanol-rich environment using untargeted and targeted metabolomic approaches. <i>Food Research International</i> , 2013, 51, 670-678.	2.9	15
80	Stomatal numbers, leaf and canopy conductance, and the control of transpiration. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, E275-E275.	3.3	12
81	D-optimal design of an untargeted HS-SPME-GC-TOF metabolite profiling method. <i>Analyst, The</i> , 2012, 137, 3725.	1.7	12
82	A high performance liquid chromatographic method for the separation of hexose monophosphates and UDP glucose from plant extracts and its use to determine specific activities in radiotracer experiments. <i>Phytochemical Analysis</i> , 1994, 5, 10-14.	1.2	11
83	On the evolutionary history of the domesticated apple. <i>Nature Genetics</i> , 2011, 43, 1044-1045.	9.4	11
84	Prospects for advancing the understanding of complex biochemical systems. <i>Plant Molecular Biology</i> , 1997, 33, 573-581.	2.0	9
85	A role for symplastic gating in the control of the potato tuber life cycle. <i>Plant Signaling and Behavior</i> , 2008, 3, 27-29.	1.2	9
86	Chaos, coexistence of attractors and fractal basin boundaries of attraction in a model system coupling activation and inhibition in parallel. <i>Dynamical Systems</i> , 1995, 10, 111-124.	0.7	8
87	A MEMS-Enabled Deployable Trace Chemical Sensor Based on Fast Gas-Chromatography and Quartz Enhanced Photoacoustic Spectroscopy. <i>Sensors</i> , 2020, 20, 120.	2.1	8
88	Hexose metabolism in discs excised from developing potato (<i>Solanum tuberosum</i> L.) tubers. <i>Planta</i> , 1996, 198, 179-185.	1.6	7
89	Desorption kinetics with PTR-MS: Isothermal differential desorption kinetics from a heterogeneous inlet surface at ambient pressure and a new concept for compound identification. <i>International Journal of Mass Spectrometry</i> , 2012, 314, 33-41.	0.7	7
90	The consequences of interactive noise for understanding the dynamics of complex biochemical systems. <i>Dynamical Systems</i> , 1996, 11, 135-148.	0.7	6

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91	Predictive CDN Selection for Video Delivery Based on LSTM Network Performance Forecasts and Cost-Effective Trade-Offs. IEEE Transactions on Broadcasting, 2021, 67, 145-158.	2.5	6
92	Tuber filling and starch synthesis in potato. Developments in Crop Science, 2000, 26, 169-194.	0.1	4
93	Potential for artefacts in the measurement of fructose and sucrose in extracts of potato tubers using the microplate reader assay. Potato Research, 1998, 41, 383-386.	1.2	3
94	A Theoretical Analysis of the Role of Pyrophosphate,Fructose 6-P,1-Phosphotransferase in Energy Dissipation During the Conversion of Fructose 6-Phosphate to Fructose 1,6-Bisphosphate in Plant Cells. Journal of Biological Systems, 1997, 05, 389-401.	0.5	1
95	Identification of an enzyme in protein extracts of potato (Solanum tuberosum L.) tubers which interferes with the assay of fructokinase and other enzymes requiring phosphorylated nucleosides. Plant Science, 1998, 132, 127-137.	1.7	1
96	An HPLC method for the assay of starch synthase. Phytochemistry, 1999, 50, 947-951.	1.4	1
97	Comparative Analysis of Gene Expression: Uncovering Expression Conservation and Divergence Between Salmonella enterica Serovar Typhimurium Strains LT2 and 14028S. Methods in Molecular Biology, 2015, 1231, 125-135.	0.4	0