

# Gavin L Sacks

## List of Publications by Year in descending order

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72  
papers

2,374  
citations

257450

24  
h-index

254184

43  
g-index

128  
all docs

128  
docs citations

128  
times ranked

2616  
citing authors

#	ARTICLE	IF	CITATIONS
1	Stable QTL for malate levels in ripe fruit and their transferability across <i>Vitis</i> species. Horticulture Research, 2022, 9, uhac009.	6.3	6
2	Berry Anthocyanin, Acid, and Volatile Trait Analyses in a Grapevine-Interspecific F2 Population Using an Integrated GBS and rhAmpSeq Genetic Map. Plants, 2022, 11, 696.	3.5	5
3	Swellable Sorbent Coatings for Parallel Extraction, Storage, and Analysis of Plant Metabolites. Journal of Agricultural and Food Chemistry, 2022, 70, 7805-7814.	5.2	0
4	Optimization of conditions for Greek style yogurt acid whey demineralization and its effects on filterability. International Dairy Journal, 2021, 123, 105163.	3.0	2
5	Identification of QTLs for berry acid and tannin in a <i>Vitis aestivalis</i> -derived 'Norton'-based population. Fruit Research, 2021, 1, 1-11.	2.0	3
6	Rapid Analysis of Volatile Phenols from Grape Juice by Immersive Sorbent Sheet Extraction Prior to Direct Analysis in Real-Time Mass Spectrometry (DART-MS). Journal of Agricultural and Food Chemistry, 2021, 69, 12344-12353.	5.2	7
7	Brine-Releasable Hydrogen Sulfide in Wine: Mechanism of Release from Copper Complexes and Effects of Glutathione. Journal of Agricultural and Food Chemistry, 2021, 69, 13164-13172.	5.2	5
8	The Genetic Basis of Anthocyanin Acylation in North American Grapes ( <i>Vitis</i> spp.). Genes, 2021, 12, 1962.	2.4	1
9	Malate Content in Wild <i>Vitis</i> spp. Demonstrates a Range of Behaviors during Berry Maturation. American Journal of Enology and Viticulture, 2020, 71, 80-87.	1.7	5
10	Free, Bound, and Total Sulfur Dioxide (SO <sub>2</sub> ) during Oxidation of Wines. American Journal of Enology and Viticulture, 2020, 71, 266-277.	1.7	11
11	Polymeric Sorbent Sheets Coupled to Direct Analysis in Real Time Mass Spectrometry for Trace-Level Volatile Analysis—A Multi-Vineyard Evaluation Study. Foods, 2020, 9, 409.	4.3	9
12	Nonlinear Behavior of Protein and Tannin in Wine Produced by Cofermentation of an Interspecific Hybrid ( <i>Vitis</i> spp.) and <i>V. vinifera</i> Cultivar. American Journal of Enology and Viticulture, 2020, 71, 26-32.	1.7	5
13	Determination of Molecular and Truly-Free Sulfur Dioxide in Wine: A Comparison of Headspace and Conventional Methods. American Journal of Enology and Viticulture, 2020, 71, 222-230.	1.7	10
14	The tomato pan-genome uncovers new genes and a rare allele regulating fruit flavor. Nature Genetics, 2019, 51, 1044-1051.	21.4	441
15	Spatially Resolved Headspace Extractions of Trace-Level Volatiles from Planar Surfaces for High-Throughput Quantitation and Mass Spectral Imaging. Journal of Agricultural and Food Chemistry, 2019, 67, 13840-13847.	5.2	11
16	Volatile and sensory characterization of roast coffees – Effects of cherry maturity. Food Chemistry, 2019, 274, 137-145.	8.2	22
17	Loss and formation of malodorous volatile sulfhydryl compounds during wine storage. Critical Reviews in Food Science and Nutrition, 2019, 59, 1728-1752.	10.3	25
18	Conventional Measurements of Sulfur Dioxide (SO <sub>2</sub> ) in Red Wine Overestimate SO <sub>2</sub> Antimicrobial Activity. American Journal of Enology and Viticulture, 2018, 69, 210-220.	1.7	17

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19	HS-SPME-GC-MS Analyses of Volatiles in Plant Populations—Quantitating Compound A— Individual Matrix Effects. <i>Molecules</i> , 2018, 23, 2436.	3.8	13
20	Parallel Headspace Extraction onto Etched Sorbent Sheets Prior to Ambient-Ionization Mass Spectrometry for Automated, Trace-Level Volatile Analyses. <i>Analytical Chemistry</i> , 2018, 90, 13806-13813.	6.5	19
21	Role of Elemental Sulfur in Forming Latent Precursors of H <sub>2</sub> S in Wine. <i>Journal of Agricultural and Food Chemistry</i> , 2017, 65, 10542-10549.	5.2	32
22	Copper-Complexed Hydrogen Sulfide in Wine: Measurement by Gas Detection Tubes and Comparison of Release Approaches. <i>American Journal of Enology and Viticulture</i> , 2017, 68, 91-99.	1.7	12
23	Trace-Level Volatile Quantitation by Direct Analysis in Real Time Mass Spectrometry following Headspace Extraction: Optimization and Validation in Grapes. <i>Journal of Agricultural and Food Chemistry</i> , 2017, 65, 9353-9359.	5.2	29
24	Next Generation Mapping of Enological Traits in an F2 Interspecific Grapevine Hybrid Family. <i>PLoS ONE</i> , 2016, 11, e0149560.	2.5	40
25	A next-generation marker genotyping platform (AmpSeq) in heterozygous crops: a case study for marker-assisted selection in grapevine. <i>Horticulture Research</i> , 2016, 3, 16002.	6.3	90
26	Solid Phase Mesh Enhanced Sorption from Headspace (SPMESH) Coupled to DART-MS for Rapid Quantification of Trace-Level Volatiles. <i>Analytical Chemistry</i> , 2016, 88, 8617-8623.	6.5	42
27	Relationship of Soluble Grape-Derived Proteins to Condensed Tannin Extractability during Red Wine Fermentation. <i>Journal of Agricultural and Food Chemistry</i> , 2016, 64, 8191-8199.	5.2	25
28	Pathogenesis-Related Proteins Limit the Retention of Condensed Tannin Additions to Red Wines. <i>Journal of Agricultural and Food Chemistry</i> , 2016, 64, 1309-1317.	5.2	36
29	Decreasing pH Results in a Reduction of Anthocyanin Coprecipitation during Cold Stabilization of Purple Grape Juice. <i>Molecules</i> , 2015, 20, 556-572.	3.8	3
30	Quantification of Polyfunctional Thiols in Wine by HS-SPME-GC-MS Following Extractive Alkylation. <i>Molecules</i> , 2015, 20, 12280-12299.	3.8	20
31	Gas Detection Tubes for Measurement of Molecular and Free SO <sub>2</sub> in Wine. <i>ACS Symposium Series</i> , 2015, , 51-67.	0.5	1
32	A Headspace Gas Detection Tube Method to Measure SO <sub>2</sub> in Wine without Disrupting SO <sub>2</sub> Equilibria. <i>American Journal of Enology and Viticulture</i> , 2015, 66, 257-265.	1.7	19
33	Review of Thirteen Years of CTS Winery Laboratory Collaborative Data. <i>American Journal of Enology and Viticulture</i> , 2015, 66, 321-339.	1.7	2
34	Quantitative analysis of volatiles in edible oils following accelerated oxidation using broad spectrum isotope standards. <i>Food Chemistry</i> , 2015, 174, 310-318.	8.2	38
35	The Perception of Riesling Varietal Character. , 2014, , 503-506.		0
36	Quantifying the Contribution of Grape Hexoses to Wine Volatiles by High-Precision [ <sup>13</sup> C]-Glucose Tracer Studies. <i>Journal of Agricultural and Food Chemistry</i> , 2014, 62, 6820-6827.	5.2	15

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37	Persistence of Elemental Sulfur Spray Residue on Grapes during Ripening and Vinification. <i>American Journal of Enology and Viticulture</i> , 2014, 65, 453-462.	1.7	28
38	Protein-Precipitable Tannin in Wines from <i>Vitis vinifera</i> and Interspecific Hybrid Grapes ( <i>Vitis</i> spp.): Differences in Concentration, Extractability, and Cell Wall Binding. <i>Journal of Agricultural and Food Chemistry</i> , 2014, 62, 7515-7523.	5.2	47
39	Behavior of Glycosylated Monoterpenes, C <sub>13</sub> -Norisoprenoids, and Benzenoids in <i>Vitis vinifera</i> cv. Riesling during Ripening and Following Hedging. <i>ACS Symposium Series</i> , 2013, , 109-124.	0.5	7
40	Simplified Method for Free SO <sub>2</sub> Measurement Using Gas Detection Tubes. <i>American Journal of Enology and Viticulture</i> , 2013, 64, 405-410.	1.7	10
41	Glycosylated Aroma Compound Responses in "Riesling" Wine Grapes to Cluster Exposure and Vine Yield. <i>HortTechnology</i> , 2013, 23, 581-588.	0.9	21
42	Decontamination of Green Onions and Baby Spinach by Vaporized Ethyl Pyruvate. <i>Journal of Food Protection</i> , 2012, 75, 1012-1022.	1.7	22
43	Modeling Impacts of Viticultural and Environmental Factors on 3-Isobutyl-2-Methoxypyrazine in Cabernet franc Grapes. <i>American Journal of Enology and Viticulture</i> , 2012, 63, 94-105.	1.7	13
44	Impact of Shoot and Cluster Thinning on Yield, Fruit Composition, and Wine Quality of Corot noir. <i>American Journal of Enology and Viticulture</i> , 2012, 63, 49-56.	1.7	45
45	Behavior of 3-Isobutyl-2-hydroxypyrazine (IBHP), a Key Intermediate in 3-Isobutyl-2-methoxypyrazine (IBMP) Metabolism, in Ripening Wine Grapes. <i>Journal of Agricultural and Food Chemistry</i> , 2012, 60, 11901-11908.	5.2	24
46	Decoupling the effects of heating and flaming on chemical and sensory changes during flambé cooking. <i>International Journal of Gastronomy and Food Science</i> , 2012, 1, 90-95.	3.0	4
47	Production of Isotopically Labeled Standards from a Uniformly Labeled Precursor for Quantitative Volatile Metabolomic Studies. <i>Analytical Chemistry</i> , 2012, 84, 5400-5406.	6.5	8
48	Sensory Threshold of 1,1,6-Trimethyl-1,2-dihydronaphthalene (TDN) and Concentrations in Young Riesling and Non-Riesling Wines. <i>Journal of Agricultural and Food Chemistry</i> , 2012, 60, 2998-3004.	5.2	88
49	Treatment of grape juice or must with silicone reduces 3-alkyl-2-methoxypyrazine concentrations in resulting wines without altering fermentation volatiles. <i>Food Research International</i> , 2012, 47, 70-79.	6.2	22
50	Calibration and data processing in gas chromatography combustion isotope ratio mass spectrometry. <i>Drug Testing and Analysis</i> , 2012, 4, 912-922.	2.6	28
51	A Computational Approach for Balancing Competing Objectives in Winegrape Production. <i>American Journal of Enology and Viticulture</i> , 2012, 63, 296-300.	1.7	1
52	Assessment of the Validity of Maturity Metrics for Predicting the Volatile Composition of Concord Grape Juice. <i>Journal of Food Science</i> , 2012, 77, C319-25.	3.1	4
53	Impact of Shoot Thinning and Harvest Date on Yield Components, Fruit Composition, and Wine Quality of Marechal Foch. <i>American Journal of Enology and Viticulture</i> , 2011, 62, 32-41.	1.7	33
54	Comparison of Odor-Active Compounds in Grapes and Wines from <i>Vitis vinifera</i> and Non-Foxy American Grape Species. <i>Journal of Agricultural and Food Chemistry</i> , 2011, 59, 10657-10664.	5.2	73

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55	Convenient, inexpensive quantification of elemental sulfur by simultaneous in situ reduction and colorimetric detection. <i>Analytica Chimica Acta</i> , 2011, 703, 52-57.	5.4	17
56	Improving vineyard sampling efficiency via dynamic spatially explicit optimisation. <i>Australian Journal of Grape and Wine Research</i> , 2011, 17, 306-315.	2.1	15
57	Impact of Harvesting and Processing Conditions on Green Leaf Volatile Development and Phenolics in Concord Grape Juice. <i>Journal of Food Science</i> , 2010, 75, C297-304.	3.1	37
58	Timing of Cluster Light Environment Manipulation during Grape Development Affects C <sup>13</sup> Norisoprenoid and Carotenoid Concentrations in Riesling. <i>Journal of Agricultural and Food Chemistry</i> , 2010, 58, 6841-6849.	5.2	89
59	Correlation of 3-Isobutyl-2-methoxypyrazine to 3-Isobutyl-2-hydroxypyrazine during Maturation of Bell Pepper ( <i>Capsicum annuum</i> ) and Wine Grapes ( <i>Vitis vinifera</i> ). <i>Journal of Agricultural and Food Chemistry</i> , 2010, 58, 9723-9730.	5.2	47
60	Effects of Concentration Prior to Cold-Stabilization on Anthocyanin Stability in Concord Grape Juice. <i>Journal of Agricultural and Food Chemistry</i> , 2010, 58, 11325-11332.	5.2	8
61	Rapid Measurement of 3-Alkyl-2-methoxypyrazine Content of Winegrapes To Predict Levels in Resultant Wines. <i>Journal of Agricultural and Food Chemistry</i> , 2009, 57, 8250-8257.	5.2	57
62	Comprehensive Two-Dimensional Gas Chromatography Combustion Isotope Ratio Mass Spectrometry. <i>Analytical Chemistry</i> , 2008, 80, 8613-8621.	6.5	56
63	Effects of Cluster Light Exposure on 3-Isobutyl-2-methoxypyrazine Accumulation and Degradation Patterns in Red Wine Grapes ( <i>Vitis vinifera</i> L. Cv. Cabernet Franc). <i>Journal of Agricultural and Food Chemistry</i> , 2008, 56, 10838-10846.	5.2	128
64	Fast Gas Chromatography Combustion Isotope Ratio Mass Spectrometry. <i>Analytical Chemistry</i> , 2007, 79, 6348-6358.	6.5	32
65	Determination of Intramolecular $\delta^{13}C$ from Incomplete Pyrolysis Fragments. Evaluation of Pyrolysis-Induced Isotopic Fractionation in Fragments from the Lactic Acid Analogue Propylene Glycol. <i>Analytical Chemistry</i> , 2006, 78, 2752-2757.	6.5	12
66	Elemental Speciation by Parallel Elemental and Molecular Mass Spectrometry and Peak Profile Matching. <i>Analytical Chemistry</i> , 2006, 78, 8445-8455.	6.5	9
67	$^{15}N/^{14}N$ Position-Specific Isotopic Analyses of Polynitrogenous Amino Acids. <i>Analytical Chemistry</i> , 2005, 77, 1013-1019.	6.5	33
68	Carbon Position-Specific Isotope Analysis of Alanine and Phenylalanine Analogues Exhibiting Nonideal Pyrolytic Fragmentation. <i>Analytical Chemistry</i> , 2005, 77, 1746-1752.	6.5	18
69	Analysis of quantization error in high-precision continuous-flow isotope ratio mass spectrometry. <i>Journal of Chromatography A</i> , 2003, 1020, 273-282.	3.7	11
70	Computational modeling of complexes of penta-ammine osmium (II) with aromatic ligands. <i>International Journal of Quantum Chemistry</i> , 2003, 92, 457-456.	2.0	9
71	High-Precision Position-Specific Isotope Analysis of $^{13}C/^{12}C$ in Leucine and Methionine Analogues. <i>Analytical Chemistry</i> , 2003, 75, 5495-5503.	6.5	18
72	Analysis of Free Hydrogen Sulfide in Wines Using Gas Detection Tubes. <i>Catalyst Discovery Into Practice</i> , 0, , catalyst.2021.21003.	0.5	2