Kevin J Verstrepen

List of Publications by Year
in descending order

133 papers	12,335 citations	26630 56 h-index	29157 104 g-index
153 all docs	153 docs citations	153 times ranked	11616 citing authors

#	Article	IF	Citations
1	Domestication and Divergence of Saccharomyces cerevisiae Beer Yeasts. Cell, 2016, 166, 1397-1410.e16.	28.9	580
2	Intragenic tandem repeats generate functional variability. Nature Genetics, 2005, 37, 986-990.	21.4	556
3	Variable Tandem Repeats Accelerate Evolution of Coding and Regulatory Sequences. Annual Review of Genetics, 2010, 44, 445-477.	7.6	530
4	Flocculation, adhesion and biofilm formation in yeasts. Molecular Microbiology, 2006, 60, 5-15.	2.5	513
5	Timescales of Genetic and Epigenetic Inheritance. Cell, 2007, 128, 655-668.	28.9	425
6	Improving industrial yeast strains: exploiting natural and artificial diversity. FEMS Microbiology Reviews, 2014, 38, 947-995.	8.6	403
7	FLO1 Is a Variable Green Beard Gene that Drives Biofilm-like Cooperation in Budding Yeast. Cell, 2008, 135, 726-737.	28.9	398
8	Flavor-active esters: Adding fruitiness to beer. Journal of Bioscience and Bioengineering, 2003, 96, 110-118.	2.2	369
9	Production and biological function of volatile esters in Saccharomyces cerevisiae. Microbial Biotechnology, 2010, 3, 165-177.	4.2	348
10	Expression Levels of the Yeast Alcohol Acetyltransferase Genes ATF1 , Lg-ATF1 , and ATF2 Control the Formation of a Broad Range of Volatile Esters. Applied and Environmental Microbiology, 2003, 69, 5228-5237.	3.1	328
11	Rapid Expansion and Functional Divergence of Subtelomeric Gene Families in Yeasts. Current Biology, 2010, 20, 895-903.	3.9	323
12	Unstable Tandem Repeats in Promoters Confer Transcriptional Evolvability. Science, 2009, 324, 1213-1216.	12.6	317
13	Physiology, ecology and industrial applications of aroma formation in yeast. FEMS Microbiology Reviews, 2017, 41, S95-S128.	8.6	246
14	The Saccharomyces cerevisiae EHT1 and EEB1 Genes Encode Novel Enzymes with Medium-chain Fatty Acid Ethyl Ester Synthesis and Hydrolysis Capacity. Journal of Biological Chemistry, 2006, 281, 4446-4456.	3.4	244
15	Taming Wild Yeast: Potential of Conventional and Nonconventional Yeasts in Industrial Fermentations. Annual Review of Microbiology, 2014, 68, 61-80.	7.3	216
16	Frequency of antibiotic application drives rapid evolutionary adaptation of Escherichia coli persistence. Nature Microbiology, 2016, 1, 16020.	13.3	210
17	Brettanomyces yeasts â€" From spoilage organisms to valuable contributors to industrial fermentations. International Journal of Food Microbiology, 2015, 206, 24-38.	4.7	192
18	Different Levels of Catabolite Repression Optimize Growth in Stable and Variable Environments. PLoS Biology, 2014, 12, e1001764.	5.6	185

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19	Sequence-based estimation of minisatellite and microsatellite repeat variability. Genome Research, 2007, 17, 1787-1796.	5.5	180
20	Origins of variation in the fungal cell surface. Nature Reviews Microbiology, 2004, 2, 533-540.	28.6	177
21	Adaptation to High Ethanol Reveals Complex Evolutionary Pathways. PLoS Genetics, 2015, 11, e1005635.	3.5	173
22	Reconstruction of Ancestral Metabolic Enzymes Reveals Molecular Mechanisms Underlying Evolutionary Innovation through Gene Duplication. PLoS Biology, 2012, 10, e1001446.	5.6	170
23	The Fungal Aroma Gene ATF1 Promotes Dispersal of Yeast Cells through Insect Vectors. Cell Reports, 2014, 9, 425-432.	6.4	163
24	A Wide Extent of Inter-Strain Diversity in Virulent and Vaccine Strains of Alphaherpesviruses. PLoS Pathogens, 2011, 7, e1002282.	4.7	134
25	Glucose and sucrose: hazardous fast-food for industrial yeast?. Trends in Biotechnology, 2004, 22, 531-537.	9.3	132
26	Bioflavoring by non-conventional yeasts in sequential beer fermentations. Food Microbiology, 2018, 72, 55-66.	4.2	128
27	An integrated framework for discovery and genotyping of genomic variants from high-throughput sequencing experiments. Nucleic Acids Research, 2014, 42, e44-e44.	14.5	124
28	Large-Scale Selection and Breeding To Generate Industrial Yeasts with Superior Aroma Production. Applied and Environmental Microbiology, 2014, 80, 6965-6975.	3.1	115
29	Domestication of Industrial Microbes. Current Biology, 2019, 29, R381-R393.	3.9	113
30	A Large Set of Newly Created Interspecific Saccharomyces Hybrids Increases Aromatic Diversity in Lager Beers. Applied and Environmental Microbiology, 2015, 81, 8202-8214.	3.1	110
31	Nucleosome Positioning in Saccharomyces cerevisiae. Microbiology and Molecular Biology Reviews, 2011, 75, 301-320.	6.6	108
32	Beyond Junk-Variable Tandem Repeats as Facilitators of Rapid Evolution of Regulatory and Coding Sequences. Genes, 2012, 3, 461-480.	2.4	105
33	Origins, evolution, domestication and diversity of Saccharomyces beer yeasts. Current Opinion in Biotechnology, 2018, 49, 148-155.	6.6	104
34	Variable Glutamine-Rich Repeats Modulate Transcription Factor Activity. Molecular Cell, 2015, 59, 615-627.	9.7	103
35	Isolation and Characterization of Brewer's Yeast Variants with Improved Fermentation Performance under High-Gravity Conditions. Applied and Environmental Microbiology, 2007, 73, 815-824.	3.1	102
36	Promoter architecture and the evolvability of gene expression. Journal of Biology, 2009, 8, 95.	2.7	96

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37	Bread Dough and Baker's Yeast: An Uplifting Synergy. Comprehensive Reviews in Food Science and Food Safety, 2017, 16, 850-867.	11.7	91
38	How do regulatory networks evolve and expand throughout evolution?. Current Opinion in Biotechnology, 2015, 34, 180-188.	6.6	90
39	Genetic and Epigenetic Mechanisms Underlying Cell-Surface Variability in Protozoa and Fungi. Annual Review of Genetics, 2009, 43, 1-24.	7.6	87
40	Non-Conventional Yeast Strains Increase the Aroma Complexity of Bread. PLoS ONE, 2016, 11, e0165126.	2.5	87
41	Adaptive tuning of mutation rates allows fast response to lethal stress in Escherichia coli. ELife, 2017, 6, .	6.0	86
42	Coding Tandem Repeats Generate Diversity in Aspergillus fumigatus Genes. Eukaryotic Cell, 2007, 6, 1380-1391.	3.4	84
43	How do yeast cells become tolerant to high ethanol concentrations?. Current Genetics, 2016, 62, 475-480.	1.7	83
44	Interspecific hybridization facilitates niche adaptation in beer yeast. Nature Ecology and Evolution, 2019, 3, 1562-1575.	7.8	83
45	Large-scale robot-assisted genome shuffling yields industrial Saccharomyces cerevisiae yeasts with increased ethanol tolerance. Biotechnology for Biofuels, 2015, 8, 32.	6.2	81
46	Noise and Epigenetic Inheritance of Single-Cell Division Times Influence Population Fitness. Current Biology, 2016, 26, 1138-1147.	3.9	80
47	Detailed Analysis of the Microbial Population in Malaysian Spontaneous Cocoa Pulp Fermentations Reveals a Core and Variable Microbiota. PLoS ONE, 2013, 8, e81559.	2.5	79
48	Succinic acid in levels produced by yeast (Saccharomyces cerevisiae) during fermentation strongly impacts wheat bread dough properties. Food Chemistry, 2014, 151, 421-428.	8.2	76
49	Phenotypic landscape of non-conventional yeast species for different stress tolerance traits desirable in bioethanol fermentation. Biotechnology for Biofuels, 2017, 10, 216.	6.2	76
50	The alcohol acetyl transferase gene is a target of the cAMP/PKA and FGM nutrient-signalling pathways. FEMS Yeast Research, 2003, 4, 285-296.	2.3	72
51	Identification of a complex genetic network underlying <scp>S</scp>accharomyces cerevisiae colony morphology. Molecular Microbiology, 2012, 86, 225-239.	2.5	71
52	Microbial communities of the house fly Musca domestica vary with geographical location and habitat. Microbiome, 2019, 7, 147.	11.1	70
53	Background-dependent effects of polyglutamine variation in the Arabidopsis thaliana gene ELF3. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 19363-19367.	7.1	67
54	Flavor-active esters: adding fruitiness to beer. Journal of Bioscience and Bioengineering, 2003, 96, 110-8.	2.2	67

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55	Assessing Genetic Diversity among Brettanomyces Yeasts by DNA Fingerprinting and Whole-Genome Sequencing. Applied and Environmental Microbiology, 2014, 80, 4398-4413.	3.1	66
56	Large-scale analysis of tandem repeat variability in the human genome. Nucleic Acids Research, 2014, 42, 5728-5741.	14.5	66
57	TheSaccharomyces cerevisiae alcohol acetyl transferase Atf1p is localized in lipid particles. Yeast, 2004, 21, 367-377.	1.7	65
58	Duplication of a promiscuous transcription factor drives the emergence of a new regulatory network. Nature Communications, 2014, 5, 4868.	12.8	63
59	Saccharomyces cerevisiae and Kluyveromyces marxianus Cocultures Allow Reduction of Fermentable Oligo-, Di-, and Monosaccharides and Polyols Levels in Whole Wheat Bread. Journal of Agricultural and Food Chemistry, 2017, 65, 8704-8713.	5.2	62
60	Dual Effect of Wasp Queen Pheromone in Regulating Insect Sociality. Current Biology, 2015, 25, 1638-1640.	3.9	61
61	Phenotypic evaluation of natural and industrial Saccharomyces yeasts for different traits desirable in industrial bioethanol production. Applied Microbiology and Biotechnology, 2014, 98, 9483-9498.	3.6	59
62	Glycerol Production by Fermenting Yeast Cells Is Essential for Optimal Bread Dough Fermentation. PLoS ONE, 2015, 10, e0119364.	2.5	57
63	Assessing the potential of wild yeasts for bioethanol production. Journal of Industrial Microbiology and Biotechnology, 2015, 42, 39-48.	3.0	57
64	Divergence in wine characteristics produced by wild and domesticated strains of Saccharomyces cerevisiae. FEMS Yeast Research, 2011, 11, 540-551.	2.3	56
65	On the duration of the microbial lag phase. Current Genetics, 2019, 65, 721-727.	1.7	55
66	Gene Loss Predictably Drives Evolutionary Adaptation. Molecular Biology and Evolution, 2020, 37, 2989-3002.	8.9	55
67	Constraints and consequences of the emergence of amino acid repeats in eukaryotic proteins. Nature Structural and Molecular Biology, 2017, 24, 765-777.	8.2	53
68	Sweet Scents: Nectar Specialist Yeasts Enhance Nectar Attraction of a Generalist Aphid Parasitoid Without Affecting Survival. Frontiers in Plant Science, 2018, 9, 1009.	3.6	52
69	Establishing the relative importance of damaged starch and fructan as sources of fermentable sugars in wheat flour and whole meal bread dough fermentations. Food Chemistry, 2017, 218, 89-98.	8.2	51
70	Improved linkage analysis of Quantitative Trait Loci using bulk segregants unveils a novel determinant of high ethanol tolerance in yeast. BMC Genomics, 2014, 15, 207.	2.8	50
71	Interspecific hybridization as a driver of fungal evolution and adaptation. Nature Reviews Microbiology, 2021, 19, 485-500.	28.6	49
72	Harvesting yeast (Saccharomyces cerevisiae) at different physiological phases significantly affects its functionality in bread dough fermentation. Food Microbiology, 2014, 39, 108-115.	4.2	48

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73	The Crabtree Effect Shapes the Saccharomyces cerevisiae Lag Phase during the Switch between Different Carbon Sources. MBio, 2018, 9, .	4.1	46
74	High-throughput system-wide engineering and screening for microbial biotechnology. Current Opinion in Biotechnology, 2017, 46, 120-125.	6.6	45
75	Transition between fermentation and respiration determines history-dependent behavior in fluctuating carbon sources. ELife, 2018, 7, .	6.0	44
76	A new protocol for single-cell RNA-seq reveals stochastic gene expression during lag phase in budding yeast. ELife, 2020, 9, .	6.0	43
77	Tuning Chocolate Flavor through Development of Thermotolerant Saccharomyces cerevisiae Starter Cultures with Increased Acetate Ester Production. Applied and Environmental Microbiology, 2016, 82, 732-746.	3.1	41
78	Kluyveromyces marxianus yeast enables the production of low FODMAP whole wheat breads. Food Microbiology, 2018, 76, 135-145.	4.2	41
79	Contribution of the tricarboxylic acid (TCA) cycle and the glyoxylate shunt in Saccharomyces cerevisiae to succinic acid production during dough fermentation. International Journal of Food Microbiology, 2015, 204, 24-32.	4.7	39
80	Nectar bacteria affect life history of a generalist aphid parasitoid by altering nectar chemistry. Functional Ecology, 2017, 31, 2061-2069.	3.6	39
81	Breeding Strategy To Generate Robust Yeast Starter Cultures for Cocoa Pulp Fermentations. Applied and Environmental Microbiology, 2015, 81, 6166-6176.	3.1	36
82	Experimental evolution of the model eukaryote Saccharomyces cerevisiae yields insight into the molecular mechanisms underlying adaptation. Current Opinion in Microbiology, 2015, 28, 1-9.	5.1	35
83	Fermentation assays reveal differences in sugar and (off-) flavor metabolism across differentBrettanomyces bruxellensisstrains. FEMS Yeast Research, 2017, 17, .	2.3	34
84	The impact of yeast fermentation on dough matrix properties. Journal of the Science of Food and Agriculture, 2016, 96, 3741-3748.	3.5	33
85	Functional divergence of gene duplicates through ectopic recombination. EMBO Reports, 2012, 13, 1145-1151.	4.5	32
86	Enrichment of persisters enabled by a ÃŸ-lactam-induced filamentation method reveals their stochastic single-cell awakening. Communications Biology, 2019, 2, 426.	4.4	30
87	Ethanol exposure increases mutation rate through error-prone polymerases. Nature Communications, 2020, 11, 3664.	12.8	29
88	Rapid Screening Method for Phenolic Off-Flavor (POF) Production in Yeast. Journal of the American Society of Brewing Chemists, 2017, 75, 318-323.	1.1	27
89	Distal chromatin structure influences local nucleosome positions and gene expression. Nucleic Acids Research, 2012, 40, 3870-3885.	14.5	25
90	Species coexistence in simple microbial communities: unravelling the phenotypic landscape of coâ€•occurring <scp>M</scp>etschnikowia species in floral nectar. Environmental Microbiology, 2016, 18, 1850-1862.	3.8	25

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91	Contribution of Eat1 and Other Alcohol Acyltransferases to Ester Production in Saccharomyces cerevisiae. Frontiers in Microbiology, 2018, 9, 3202.	3.5	25
92	Variability in yeast invertase activity determines the extent of fructan hydrolysis during wheat dough fermentation and final FODMAP levels in bread. International Journal of Food Microbiology, 2020, 326, 108648.	4.7	25
93	Dynamics of the Saccharomyces cerevisiae Transcriptome during Bread Dough Fermentation. Applied and Environmental Microbiology, 2013, 79, 7325-7333.	3.1	24
94	Reducing phenolic off-flavors through CRISPR-based gene editing of the FDC1 gene in Saccharomyces cerevisiae x Saccharomyces eubayanus hybrid lager beer yeasts. PLoS ONE, 2019, 14, e0209124.	2.5	24
95	Volatiles of bacteria associated with parasitoid habitats elicit distinct olfactory responses in an aphid parasitoid and its hyperparasitoid. Functional Ecology, 2020, 34, 507-520.	3.6	24
96	Description of the temporal dynamics in microbial community composition and beer chemistry in sour beer production via barrel ageing of finished beers. International Journal of Food Microbiology, 2021, 339, 109030.	4.7	23
97	Variable repeats in the eukaryotic polyubiquitin gene ubi4 modulate proteostasis and stress survival. Nature Communications, 2017, 8, 397.	12.8	22
98	A Handsâ€On Guide to Brewing and Analyzing Beer in the Laboratory. Current Protocols in Microbiology, 2019, 54, e91.	6.5	20
99	Network hubs affect evolvability. PLoS Biology, 2019, 17, e3000111.	5.6	20
100	The androgen receptor depends on ligandâ€binding domain dimerization for transcriptional activation. EMBO Reports, 2021, 22, e52764.	4.5	20
101	SCRaMbLEing to understand and exploit structural variation in genomes. Nature Communications, 2018, 9, 1937.	12.8	19
102	The Role of Structural Variation in Adaptation and Evolution of Yeast and Other Fungi. Genes, 2021, 12, 699.	2.4	19
103	Characterization and Degradation of Pectic Polysaccharides in Cocoa Pulp. Journal of Agricultural and Food Chemistry, 2017, 65, 9726-9734.	5.2	18
104	Associative learning and memory retention of nectar yeast volatiles in a generalist parasitoid. Animal Behaviour, 2019, 153, 137-146.	1.9	18
105	Clinical Progress in Proton Radiotherapy: Biological Unknowns. Cancers, 2021, 13, 604.	3.7	17
106	Integrated Multi-Omics Analysis of Mechanisms Underlying Yeast Ethanol Tolerance. Journal of Proteome Research, 2021, 20, 3840-3852.	3.7	17
107	The impact of nectar chemical features on phenotypic variation in two related nectar yeasts. FEMS Microbiology Ecology, 2015, 91, .	2.7	14
108	A Mutant Isoform of ObgE Causes Cell Death by Interfering with Cell Division. Frontiers in Microbiology, 2017, 8, 1193.	3.5	14

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109	Selecting and generating superior yeasts for the brewing industry. Cerevisia, 2012, 37, 63-67.	0.3	13
110	Detection of yeast strains by combining surface-imprinted polymers with impedance-based readout. Sensors and Actuators B: Chemical, 2021, 340, 129917.	7.8	13
111	Metabolite Analysis Allows Insight into the Differences in Functionality of 25 Saccharomyces cerevisiae Strains in Bread Dough Fermentation. Cereal Chemistry, 2015, 92, 588-597.	2.2	12
112	Substrate-Limited Saccharomyces cerevisiae Yeast Strains Allow Control of Fermentation during Bread Making. Journal of Agricultural and Food Chemistry, 2017, 65, 3368-3377.	5.2	11
113	The Potential of Kluyveromyces marxianus to Produce Low-FODMAP Straight-Dough and Sourdough Bread: a Pilot-Scale Study. Food and Bioprocess Technology, 2021, 14, 1920-1935.	4.7	8
114	Small Differences in SUC Gene Sequences Impact Saccharomyces cerevisiae Invertase Activity and Specificity toward Fructans with Different Chain Lengths. Journal of Agricultural and Food Chemistry, 2021, 69, 1925-1935.	5.2	7
115	The Pupal Parasitoid Trichopria drosophilae Is Attracted to the Same Yeast Volatiles as Its Adult Host. Journal of Chemical Ecology, 2021, 47, 788-798.	1.8	7
116	Ethanol-Induced Cell Damage Can Result in the Development of Oral Tumors. Cancers, 2021, 13, 3846.	3.7	7
117	Apibacter muscae sp. nov., a novel bacterial species isolated from house flies. International Journal of Systematic and Evolutionary Microbiology, 2019, 69, 3586-3592.	1.7	7
118	Massive QTL analysis identifies pleiotropic genetic determinants for stress resistance, aroma formation, and ethanol, glycerol and isobutanol production in Saccharomyces cerevisiae. Biotechnology for Biofuels, 2021, 14, 211.	6.2	7
119	Critical assessment of the formation of hydrogen peroxide in dough by fermenting yeast cells. Food Chemistry, 2015, 168, 183-189.	8.2	6
120	Breeding of New Saccharomyces cerevisiae Hybrids with Reduced Higher Alcohol Production for Light-Aroma-Type-Xiaoqu Baijiu Production. Journal of the American Society of Brewing Chemists, 2023, 81, 233-241.	1.1	6
121	Impact of wood species on microbial community composition, beer chemistry and sensory characteristics during barrelâ€ageing of beer. International Journal of Food Science and Technology, 2022, 57, 1122-1136.	2.7	6
122	Mapping the landscape of tandem repeat variability by targeted long read single molecule sequencing in familial X-linked intellectual disability. BMC Medical Genomics, 2018, 11, 123.	1.5	5
123	Subtelomeric Regions Promote Evolutionary Innovation of Gene Families in Yeast. , 2014, , 39-70.		5
124	Identification of a Wheat Thaumatin-like Protein That InhibitsSaccharomyces cerevisiae. Journal of Agricultural and Food Chemistry, 2019, 67, 10423-10431.	5.2	4
125	Genetic admixture increases phenotypic diversity in the nectar yeast Metschnikowia reukaufii. Fungal Ecology, 2021, 49, 101016.	1.6	4
126	Beer ethanol and iso-Î±-acid level affect microbial community establishment and beer chemistry throughout wood maturation of beer. International Journal of Food Microbiology, 2022, 374, 109724.	4.7	4

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127	Synchronized, Spontaneous, and Oscillatory Detachment of Eukaryotic Cells: A New Tool for Cell Characterization and Identification. Advanced Science, 2022, 9, .	11.2	4
128	Development and validation of a glass-silicon microdroplet-based system to measure sulfite concentrations in beverages. Analytical and Bioanalytical Chemistry, 2019, 411, 1127-1134.	3.7	3
129	Single-Cell RNA Sequencing in Yeast Using the 10Ã— Genomics Chromium Device. Methods in Molecular Biology, 2022, 2477, 3-20.	0.9	2
130	An Integrated Approach Reveals DNA Damage and Proteotoxic Stress as Main Effects of Proton Radiation in S. cerevisiae. International Journal of Molecular Sciences, 2022, 23, 5493.	4.1	2
131	Stop that Noise and Turn Up the Antisense Transcription. Cell Reports, 2016, 15, 2575-2576.	6.4	1
132	Moulded by humans: The domestication of blueâ€veined cheese fungi. Molecular Ecology, 2020, 29, 2517-2520.	3.9	1
133	Evolutionary Context Improves Regulatory Network Predictions. Cell Systems, 2017, 4, 478-479.	6.2	0