

David C Schwartz

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4658214/publications.pdf>

Version: 2024-02-01

69
papers

10,165
citations

109321

35
h-index

110387

64
g-index

70
all docs

70
docs citations

70
times ranked

10325
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Separation of yeast chromosome-sized DNAs by pulsed field gradient gel electrophoresis. <i>Cell</i> , 1984, 37, 67-75. | 28.9 | 2,914 |
| 2 | Comparative genomics reveals mobile pathogenicity chromosomes in <i>Fusarium</i> . <i>Nature</i> , 2010, 464, 367-373. | 27.8 | 1,442 |
| 3 | Lifestyle transitions in plant pathogenic <i>Colletotrichum</i> fungi deciphered by genome and transcriptome analyses. <i>Nature Genetics</i> , 2012, 44, 1060-1065. | 21.4 | 840 |
| 4 | Assemblathon 2: evaluating de novo methods of genome assembly in three vertebrate species. <i>GigaScience</i> , 2013, 2, 10. | 6.4 | 582 |
| 5 | Lineage-Specific Biology Revealed by a Finished Genome Assembly of the Mouse. <i>PLoS Biology</i> , 2009, 7, e1000112. | 5.6 | 419 |
| 6 | Ordered restriction maps of <i>Saccharomyces cerevisiae</i> chromosomes constructed by optical mapping. <i>Science</i> , 1993, 262, 110-114. | 12.6 | 391 |
| 7 | A single-molecule barcoding system using nanoslits for DNA analysis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 2673-2678. | 7.1 | 285 |
| 8 | The challenges of sequencing by synthesis. <i>Nature Biotechnology</i> , 2009, 27, 1013-1023. | 17.5 | 232 |
| 9 | Whole-Genome Shotgun Optical Mapping of <i>Deinococcus radiodurans</i> . <i>Science</i> , 1999, 285, 1558-1562. | 12.6 | 184 |
| 10 | A Microfluidic System for Large DNA Molecule Arrays. <i>Analytical Chemistry</i> , 2004, 76, 5293-5301. | 6.5 | 175 |
| 11 | An algorithm for assembly of ordered restriction maps from single DNA molecules. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 15770-15775. | 7.1 | 164 |
| 12 | High-resolution human genome structure by single-molecule analysis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 10848-10853. | 7.1 | 161 |
| 13 | Nanochannel confinement: DNA stretch approaching full contour length. <i>Lab on A Chip</i> , 2011, 11, 1721. | 6.0 | 131 |
| 14 | A Single Molecule Scaffold for the Maize Genome. <i>PLoS Genetics</i> , 2009, 5, e1000711. | 3.5 | 122 |
| 15 | Validation of rice genome sequence by optical mapping. <i>BMC Genomics</i> , 2007, 8, 278. | 2.8 | 111 |
| 16 | Gapless genome assembly of <i>Colletotrichum higginsianum</i> reveals chromosome structure and association of transposable elements with secondary metabolite gene clusters. <i>BMC Genomics</i> , 2017, 18, 667. | 2.8 | 111 |
| 17 | Optical mapping of lambda bacteriophage clones using restriction endonucleases. <i>Nature Genetics</i> , 1995, 9, 432-438. | 21.4 | 109 |
| 18 | The Physical and Genetic Framework of the Maize B73 Genome. <i>PLoS Genetics</i> , 2009, 5, e1000715. | 3.5 | 95 |

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 19 | A large and complex structural polymorphism at 16p12.1 underlies microdeletion disease risk. <i>Nature Genetics</i> , 2010, 42, 745-750. | 21.4 | 89 |
| 20 | A shotgun optical map of the entire <i>Plasmodium falciparum</i> genome. <i>Nature Genetics</i> , 1999, 23, 309-313. | 21.4 | 78 |
| 21 | Shotgun Optical Maps of the Whole <i>Escherichia coli</i> O157:H7 Genome. <i>Genome Research</i> , 2001, 11, 1584-1593. | 5.5 | 78 |
| 22 | Genomics via Optical Mapping II: Ordered Restriction Maps. <i>Journal of Computational Biology</i> , 1997, 4, 91-118. | 1.6 | 77 |
| 23 | Alignment of Optical Maps. <i>Journal of Computational Biology</i> , 2006, 13, 442-462. | 1.6 | 76 |
| 24 | Chromosome-level genome map provides insights into diverse defense mechanisms in the medicinal fungus <i>Ganoderma sinense</i> . <i>Scientific Reports</i> , 2015, 5, 11087. | 3.3 | 76 |
| 25 | Elongation and migration of single DNA molecules in microchannels using oscillatory shear flows. <i>Lab on A Chip</i> , 2009, 9, 2348. | 6.0 | 74 |
| 26 | Tension-Dependent Free Energies of Nucleosome Unwrapping. <i>ACS Central Science</i> , 2016, 2, 660-666. | 11.3 | 67 |
| 27 | A Whole-Genome Shotgun Optical Map of <i>Yersinia pestis</i> Strain KIM. <i>Applied and Environmental Microbiology</i> , 2002, 68, 6321-6331. | 3.1 | 65 |
| 28 | In silico evidence for sequence-dependent nucleosome sliding. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E9197-E9205. | 7.1 | 65 |
| 29 | Molecular Propulsion: Chemical Sensing and Chemotaxis of DNA Driven by RNA Polymerase. <i>Journal of the American Chemical Society</i> , 2009, 131, 5722-5723. | 13.7 | 64 |
| 30 | Single-Molecule Approach to Bacterial Genomic Comparisons via Optical Mapping. <i>Journal of Bacteriology</i> , 2004, 186, 7773-7782. | 2.2 | 63 |
| 31 | The genome of opportunistic fungal pathogen <i>Fusarium oxysporum</i> carries a unique set of lineage-specific chromosomes. <i>Communications Biology</i> , 2020, 3, 50. | 4.4 | 55 |
| 32 | Whole-Genome Shotgun Optical Mapping of <i>Rhodobacter sphaeroides</i> strain 2.4.1 and Its Use for Whole-Genome Shotgun Sequence Assembly. <i>Genome Research</i> , 2003, 13, 2142-2151. | 5.5 | 49 |
| 33 | Single-molecule analysis reveals widespread structural variation in multiple myeloma. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 7689-7694. | 7.1 | 43 |
| 34 | Shotgun optical mapping of the entire <i>Leishmania major</i> Friedlin genome. <i>Molecular and Biochemical Parasitology</i> , 2004, 138, 97-106. | 1.1 | 41 |
| 35 | Genome Sequence and Annotation of <i>Colletotrichum higginsianum</i> , a Causal Agent of Crucifer Anthracnose Disease. <i>Genome Announcements</i> , 2016, 4, . | 0.8 | 41 |
| 36 | Allele-Specific Quantification of Structural Variations in Cancer Genomes. <i>Cell Systems</i> , 2016, 3, 21-34. | 6.2 | 41 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 37 | Presentation of Large DNA Molecules for Analysis as Nanoconfined Dumbbells. <i>Macromolecules</i> , 2013, 46, 8356-8368. | 4.8 | 39 |
| 38 | Optical mapping discerns genome wide DNA methylation profiles. <i>BMC Molecular Biology</i> , 2008, 9, 68. | 3.0 | 35 |
| 39 | Optical mapping of the <i>Mycobacterium avium</i> subspecies <i>paratuberculosis</i> genome. <i>BMC Genomics</i> , 2009, 10, 25. | 2.8 | 35 |
| 40 | Mapping the genome one molecule at a time – optical mapping. <i>Nature</i> , 1995, 378, 516-517. | 27.8 | 31 |
| 41 | Engineering BspQI nicking enzymes and application of N.BspQI in DNA labeling and production of single-strand DNA. <i>Protein Expression and Purification</i> , 2010, 69, 226-234. | 1.3 | 30 |
| 42 | Discovery of structural alterations in solid tumor oligodendroglioma by single molecule analysis. <i>BMC Genomics</i> , 2013, 14, 505. | 2.8 | 30 |
| 43 | Refinement of optical map assemblies. <i>Bioinformatics</i> , 2006, 22, 1217-1224. | 4.1 | 29 |
| 44 | Inhibition of Restriction Endonuclease Activity by DNA Binding Fluorochromes. <i>Journal of Biomolecular Structure and Dynamics</i> , 1996, 13, 945-951. | 3.5 | 25 |
| 45 | Electrostatic confinement and manipulation of DNA molecules for genome analysis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 13400-13405. | 7.1 | 25 |
| 46 | DNA binding fluorescent proteins for the direct visualization of large DNA molecules. <i>Nucleic Acids Research</i> , 2016, 44, e6-e6. | 14.5 | 24 |
| 47 | Sizing single DNA molecules. <i>Nature</i> , 1992, 359, 783-784. | 27.8 | 23 |
| 48 | An integrative approach for the optical sequencing of single DNA molecules. <i>Analytical Biochemistry</i> , 2004, 330, 227-241. | 2.4 | 23 |
| 49 | A Single-Molecule Barcoding System using Nanoslits for DNA Analysis. <i>Methods in Molecular Biology</i> , 2009, 544, 29-42. | 0.9 | 22 |
| 50 | Comparative Genomic Analyses of the Human NPHP1 Locus Reveal Complex Genomic Architecture and Its Regional Evolution in Primates. <i>PLoS Genetics</i> , 2015, 11, e1005686. | 3.5 | 21 |
| 51 | Maligner: a fast ordered restriction map aligner. <i>Bioinformatics</i> , 2016, 32, 1016-1022. | 4.1 | 19 |
| 52 | Chapter 9 A Single Molecule System for Whole Genome Analysis. <i>Perspectives in Bioanalysis</i> , 2007, , 265-300. | 0.3 | 18 |
| 53 | Statistical Significance of Optical Map Alignments. <i>Journal of Computational Biology</i> , 2012, 19, 478-492. | 1.6 | 17 |
| 54 | High-density polymerase-mediated incorporation of fluorochrome-labeled nucleotides. <i>Analytical Biochemistry</i> , 2005, 337, 1-11. | 2.4 | 15 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 55 | New Generations: Sequencing Machines and Their Computational Challenges. <i>Journal of Computer Science and Technology</i> , 2010, 25, 3-9. | 1.5 | 15 |
| 56 | Optical PCR: Genomic analysis by long-range PCR and optical mapping. <i>Mammalian Genome</i> , 1999, 10, 1005-1009. | 2.2 | 13 |
| 57 | Mycobacterial genome structure (minireview). <i>Electrophoresis</i> , 1998, 19, 573-576. | 2.4 | 12 |
| 58 | Optical Mapping of DNA Polymerase I Action and Products. <i>Biochemical and Biophysical Research Communications</i> , 1999, 254, 466-473. | 2.1 | 12 |
| 59 | A clone-free, single molecule map of the domestic cow (<i>Bos taurus</i>) genome. <i>BMC Genomics</i> , 2015, 16, 644. | 2.8 | 12 |
| 60 | Imaging and analysis of transcription on large, surface-mounted single template DNA molecules. <i>Analytical Biochemistry</i> , 2008, 380, 111-121. | 2.4 | 11 |
| 61 | Optical mapping and nanocoding approaches to whole-genome analysis. <i>Microfluidics and Nanofluidics</i> , 2016, 20, 1. | 2.2 | 8 |
| 62 | Sizing of Large DNA Molecules by Hook Formation in a Loose Matrix. <i>Journal of Biomolecular Structure and Dynamics</i> , 1993, 11, 1-10. | 3.5 | 5 |
| 63 | Biophysics and the Genomic Sciences. <i>Biophysical Journal</i> , 2019, 117, 2047-2053. | 0.5 | 2 |
| 64 | Trench field-effect transistors integrated in a microfluidic channel and design considerations for charge detection. <i>Applied Physics Letters</i> , 2022, 120, 192102. | 3.3 | 1 |
| 65 | Electrifying separations. <i>Nature</i> , 1991, 353, 470-470. | 27.8 | 0 |
| 66 | Microscale Objects via Restructuring of Large, Double-Stranded DNA Molecules. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 41215-41223. | 8.0 | 0 |
| 67 | Discrete and Continuum Models for the Salt in Crowded Environments of Suspended Charged Particles. <i>Journal of Chemical Theory and Computation</i> , 2018, 14, 4901-4913. | 5.3 | 0 |
| 68 | A simple dialysis device for large DNA molecules. <i>BioTechniques</i> , 2019, 66, 93-95. | 1.8 | 0 |
| 69 | Optical Mapping of the Myeloma Cancer Genome to Elucidate Mechanisms of Acquired Resistance to Proteasome Inhibitors.. <i>Blood</i> , 2012, 120, 2444-2444. | 1.4 | 0 |