

# John Paul Pezacki

## List of Publications by Year in descending order

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120  
papers

4,631  
citations

108046

37  
h-index

129628

63  
g-index

121  
all docs

121  
docs citations

121  
times ranked

6186  
citing authors

#	ARTICLE	IF	CITATIONS
1	Cellular Consequences of Copper Complexes Used To Catalyze Bioorthogonal Click Reactions. <i>Journal of the American Chemical Society</i> , 2011, 133, 17993-18001.	6.6	330
2	Chemical contrast for imaging living systems: molecular vibrations drive CARS microscopy. <i>Nature Chemical Biology</i> , 2011, 7, 137-145.	3.9	207
3	Three-Mode Electrochemical Sensing of Ultralow MicroRNA Levels. <i>Journal of the American Chemical Society</i> , 2013, 135, 3027-3038.	6.6	207
4	Bioorthogonal chemistry. <i>Nature Reviews Methods Primers</i> , 2021, 1, .	11.8	201
5	Gene expression during the priming phase of liver regeneration after partial hepatectomy in mice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002, 99, 11181-11186.	3.3	183
6	Optimally chirped multimodal CARS microscopy based on a single Ti:sapphire oscillator. <i>Optics Express</i> , 2009, 17, 2984.	1.7	182
7	Mammalian Cell Surface Imaging with Nitrile-Functionalized Nanoprobes: Biophysical Characterization of Aggregation and Polarization Anisotropy in SERS Imaging. <i>Journal of the American Chemical Society</i> , 2007, 129, 14-15.	6.6	128
8	Hepatitis C virus induced up-regulation of microRNA-27: A novel mechanism for hepatic steatosis. <i>Hepatology</i> , 2014, 59, 98-108.	3.6	110
9	Nitrones as dipoles for rapid strain-promoted 1,3-dipolar cycloadditions with cyclooctynes. <i>Chemical Communications</i> , 2010, 46, 931-933.	2.2	107
10	Imaging nanometer domains of $\beta_2$ -adrenergic receptor complexes on the surface of cardiac myocytes. <i>Nature Chemical Biology</i> , 2005, 1, 196-202.	3.9	103
11	Peroxisome Proliferator-Activated Receptor $\beta$ Antagonism Inhibits Hepatitis C Virus Replication. <i>Chemistry and Biology</i> , 2006, 13, 23-30.	6.2	94
12	All-fiber CARS microscopy of live cells. <i>Optics Express</i> , 2009, 17, 20700.	1.7	79
13	Quantitative Analysis of MicroRNA in Blood Serum with Protein-Facilitated Affinity Capillary Electrophoresis. <i>Analytical Chemistry</i> , 2011, 83, 6196-6201.	3.2	78
14	MicroRNAs regulate the immunometabolic response to viral infection in the liver. <i>Nature Chemical Biology</i> , 2015, 11, 988-993.	3.9	76
15	Near-Field Scanning Fluorescence Microscopy Study of Ion Channel Clusters in Cardiac Myocyte Membranes. <i>Biophysical Journal</i> , 2004, 87, 3525-3535.	0.2	72
16	Development of nanoparticle probes for multiplex SERS imaging of cell surface proteins. <i>Nanoscale</i> , 2010, 2, 1413.	2.8	72
17	The influence of cholesterol and lipid metabolism on host cell structure and hepatitis C virus replication. <i>Biochemistry and Cell Biology</i> , 2006, 84, 67-79.	0.9	71
18	Modulation of Fatty Acid Synthase Enzyme Activity and Expression during Hepatitis C Virus Replication. <i>Chemistry and Biology</i> , 2013, 20, 570-582.	6.2	71

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19	Cellular Lipid Metabolism Is Influenced by the Coordination Environment of Copper. <i>Journal of the American Chemical Society</i> , 2009, 131, 2444-2445.	6.6	67
20	Strain-promoted cycloadditions involving nitrones and alkynes—rapid tunable reactions for bioorthogonal labeling. <i>Current Opinion in Chemical Biology</i> , 2014, 21, 81-88.	2.8	67
21	Strain-promoted cycloadditions of cyclic nitrones with cyclooctynes for labeling human cancer cells. <i>Chemical Communications</i> , 2011, 47, 10040.	2.2	64
22	Intracellular Imaging of HCV RNA and Cellular Lipids by Using Simultaneous Two-Photon Fluorescence and Coherent Anti-Stokes Raman Scattering Microscopies. <i>ChemBioChem</i> , 2006, 7, 1895-1897.	1.3	60
23	MicroRNA Mimics or Inhibitors as Antiviral Therapeutic Approaches Against COVID-19. <i>Drugs</i> , 2021, 81, 517-531.	4.9	59
24	Bioorthogonal Reactions Utilizing Nitrones as Versatile Dipoles in Cycloaddition Reactions. <i>Chemical Reviews</i> , 2021, 121, 6699-6717.	23.0	59
25	Direct imaging of the disruption of hepatitis C virus replication complexes by inhibitors of lipid metabolism. <i>Virology</i> , 2009, 394, 130-142.	1.1	57
26	Activity-based Protein Profiling Identifies a Host Enzyme, Carboxylesterase 1, Which Is Differentially Active during Hepatitis C Virus Replication. <i>Journal of Biological Chemistry</i> , 2010, 285, 25602-25612.	1.6	56
27	Competing roles of microRNA-122 recognition elements in hepatitis C virus RNA. <i>Virology</i> , 2011, 410, 336-344.	1.1	56
28	Stearoyl-CoA desaturase inhibition blocks formation of hepatitis C virus-induced specialized membranes. <i>Scientific Reports</i> , 2014, 4, 4549.	1.6	53
29	Nanoscale Aggregation of Cellular $\beta^2$ -Adrenergic Receptors Measured by Plasmonic Interactions of Functionalized Nanoparticles. <i>ACS Nano</i> , 2009, 3, 2329-2339.	7.3	49
30	Dynamics of lipid droplets induced by the hepatitis C virus core protein. <i>Biochemical and Biophysical Research Communications</i> , 2010, 399, 518-524.	1.0	48
31	Studies of multicomponent Kinugasa reactions in aqueous media. <i>Tetrahedron Letters</i> , 2009, 50, 1893-1896.	0.7	46
32	An enzyme-linked assay for the rapid quantification of microRNAs based on the viral suppressor of RNA silencing protein p19. <i>Analytical Biochemistry</i> , 2011, 412, 165-172.	1.1	46
33	Hepatitis C virus and microRNAs: miRed in a host of possibilities. <i>Current Opinion in Virology</i> , 2014, 7, 1-10.	2.6	46
34	Kinetics studies of rapid strain-promoted [3 + 2]-cycloadditions of nitrones with biaryl-aza-cyclooctynone. <i>Organic and Biomolecular Chemistry</i> , 2012, 10, 3066.	1.5	42
35	Laser Flash and Dual Wavelength Photolysis of 3,4-Diaza-2,2-dimethoxy-1-oxa[4.5]spirooct-3-ene. Migration of Hydrogen and Carbon in Cyclobutylidene and in the Excited State of Its Precursor. <i>Journal of the American Chemical Society</i> , 1997, 119, 3191-3192.	6.6	40
36	Lifetimes of Dialkylcarbocations Derived from Alkanediazonium Ions in Solution: A Cyclohexadienyl Cations as Kinetic Probes for Cation Reactivity. <i>Journal of the American Chemical Society</i> , 1999, 121, 6589-6598.	6.6	40

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37	Surface-Enhanced Raman and Resonant Rayleigh Scatterings From Adsorbate Saturated Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2010, 114, 7356-7363.	1.5	40
38	Laser Flash Photolysis Studies of Oxygen and Sulfur Atom Transfer Reactions from Oxiranes and Thiiranes to Singlet Carbenes <sup>1</sup> . <i>Journal of the American Chemical Society</i> , 1998, 120, 8681-8691.	6.6	37
39	Release of Nitric Oxide from S-Nitrosohemoglobin. Electron Transfer as a Response to Deoxygenation. <i>Journal of the American Chemical Society</i> , 2001, 123, 4615-4616.	6.6	36
40	Activity-based protein profiling of the hepatitis C virus replication in Huh-7 hepatoma cells using a non-directed active site probe. <i>Proteome Science</i> , 2010, 8, 5.	0.7	36
41	Diverting Thiamin from Catalysis to Destruction. Mechanism of Fragmentation of N(1')-Methyl-2-(1-hydroxybenzyl)thiamin. <i>Journal of the American Chemical Society</i> , 1995, 117, 11383-11389.	6.6	34
42	Development of a Multiplexed Microfluidic Proteomic Reactor and Its Application for Studying Protein-Protein Interactions. <i>Analytical Chemistry</i> , 2011, 83, 4095-4102.	3.2	34
43	Fluorescence Lifetime Imaging of Alterations to Cellular Metabolism by Domain 2 of the Hepatitis C Virus Core Protein. <i>PLoS ONE</i> , 2013, 8, e66738.	1.1	32
44	Transcriptional profiling of the effects of 25-hydroxycholesterol on human hepatocyte metabolism and the antiviral state it conveys against the hepatitis C virus. <i>BMC Chemical Biology</i> , 2009, 9, 2.	1.6	31
45	Activity-Based Proteome Profiling of Hepatoma Cells during Hepatitis C Virus Replication Using Protease Substrate Probes. <i>Journal of Proteome Research</i> , 2010, 9, 912-923.	1.8	31
46	Bioorthogonal labelling of living bacteria using unnatural amino acids containing nitrones and a nitron derivative of vancomycin. <i>Chemical Communications</i> , 2015, 51, 12501-12504.	2.2	31
47	Host-virus interactions during hepatitis C virus infection: a complex and dynamic molecular biosystem. <i>Molecular BioSystems</i> , 2010, 6, 1131.	2.9	29
48	Rate Constants for 1,2-Hydrogen Migration in Cyclohexylidene and in Substituted Cyclohexylidenes <sup>1</sup> . <i>Journal of Organic Chemistry</i> , 1999, 64, 4456-4464.	1.7	28
49	Genomic Effects of Polyamide/DNA Interactions on mRNA Expression. <i>Chemistry and Biology</i> , 2002, 9, 821-827.	6.2	28
50	Studying the RNA silencing pathway with the p19 protein. <i>FEBS Letters</i> , 2013, 587, 1198-1205.	1.3	28
51	Kinetics studies of rapid strain-promoted [3+2] cycloadditions of nitrones with bicyclo[6.1.0]nonyne. <i>Canadian Journal of Chemistry</i> , 2014, 92, 337-340.	0.6	28
52	Activity-based protein profiling of host-virus interactions. <i>Trends in Biotechnology</i> , 2012, 30, 89-99.	4.9	27
53	A Small-Molecule Probe for Hepatitis C Virus Replication that Blocks Protein Folding. <i>Chemistry and Biology</i> , 2006, 13, 1051-1060.	6.2	25
54	Strain-promoted 1,3-dipolar cycloadditions of diazo compounds with cyclooctynes. <i>Canadian Journal of Chemistry</i> , 2011, 89, 148-151.	0.6	25

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55	A New Chemical Probe for Phosphatidylinositol Kinase Activity. <i>ChemBioChem</i> , 2014, 15, 1253-1256.	1.3	25
56	Enhanced Specificity of the Viral Suppressor of RNA Silencing Protein p19 toward Sequestering of Human MicroRNA-122. <i>Biochemistry</i> , 2011, 50, 7745-7755.	1.2	24
57	Rearrangements and addition reactions of biarylazacyclooctynones and the implications to copper-free click chemistry. <i>Organic and Biomolecular Chemistry</i> , 2013, 11, 3436.	1.5	24
58	Kinugasa Reactions in Water: From Green Chemistry to Bioorthogonal Labelling. <i>Molecules</i> , 2015, 20, 6959-6969.	1.7	24
59	MicroRNA-124 Regulates Fatty Acid and Triglyceride Homeostasis. <i>IScience</i> , 2018, 10, 149-157.	1.9	24
60	Effects of pH and salt concentration on the siRNA binding activity of the RNA silencing suppressor protein p19. <i>FEBS Letters</i> , 2007, 581, 3051-3056.	1.3	23
61	Studies of the Interaction of the Viral Suppressor of RNA Silencing Protein p19 with Small RNAs Using Fluorescence Polarization. <i>Biochemistry</i> , 2008, 47, 8130-8138.	1.2	21
62	Copper-catalysed cycloaddition reactions of nitrones and alkynes for bioorthogonal labelling of living cells. <i>RSC Advances</i> , 2014, 4, 46966-46969.	1.7	21
63	The role of microRNAs in metabolic interactions between viruses and their hosts. <i>Current Opinion in Virology</i> , 2016, 19, 71-76.	2.6	20
64	A conserved miRNA-183 cluster regulates the innate antiviral response. <i>Journal of Biological Chemistry</i> , 2019, 294, 19785-19794.	1.6	20
65	Inhibition of siRNA Binding to a p19 Viral Suppressor of RNA Silencing by Cysteine Alkylation. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 2005-2009.	7.2	19
66	Systems biology methods help develop a better understanding of hepatitis C virus-induced liver injury. <i>Hepatology</i> , 2012, 56, 1-4.	3.6	19
67	Bidirectional Lipid Droplet Velocities Are Controlled by Differential Binding Strengths of HCV Core DII Protein. <i>PLoS ONE</i> , 2013, 8, e78065.	1.1	19
68	$\beta$ -3,1,3,4-Oxadiazolines: Photochemical Precursors to Diazoalkanes and sec-Alkanediazonium Ions in Acidic Solution. <i>Journal of the American Chemical Society</i> , 1997, 119, 1789-1790.	6.6	18
69	The Efficacy of siRNAs against Hepatitis C Virus Is Strongly Influenced by Structure and Target Site Accessibility. <i>Chemistry and Biology</i> , 2010, 17, 515-527.	6.2	18
70	Simultaneous quantitative measurement of luciferase reporter activity and cell number in two- and three-dimensional cultures of hepatitis C virus replicons. <i>Analytical Biochemistry</i> , 2006, 350, 239-248.	1.1	17
71	Silicon Migration from Oxygen to Carbon and Decarbonylation in Methoxytriphenylsiloxycarbene. <i>Organic Letters</i> , 2000, 2, 2733-2736.	2.4	16
72	FLEth RNA Intercalating Probe Is a Convenient Reporter for Small Interfering RNAs. <i>Journal of the American Chemical Society</i> , 2009, 131, 9872-9873.	6.6	16

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73	Nanoscale organization of $\beta$ 2-adrenergic receptor-Venus fusion protein domains on the surface of mammalian cells. <i>Biochemical and Biophysical Research Communications</i> , 2009, 382, 85-90.	1.0	16
74	Laser flash photolysis of 2-adamantane-2,31-[3H]-diazirine: a reinvestigation. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 1998, 116, 1-7.	2.0	15
75	Reactions of Dimethoxycarbene with Cyclic Perchlorinated Olefins and Ketones. <i>Journal of Organic Chemistry</i> , 1999, 64, 4344-4352.	1.7	15
76	Normal acid/base behaviour in proton transfer reactions to alkoxy substituted carbenes: estimates for intrinsic barriers to reaction and $pK_a$ values. <i>Canadian Journal of Chemistry</i> , 1999, 77, 1230-1240.	0.6	14
77	Stabilized recombinant suppressors of RNA silencing: Functional effects of linking monomers of Carnation Italian Ringspot virus p19. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2007, 1774, 1528-1535.	1.1	14
78	Gene Expression Profiling of Endoplasmic Reticulum Stress in Hepatitis C Virus-Containing Cells Treated with an Inhibitor of Protein Disulfide Isomerases. <i>ACS Omega</i> , 2018, 3, 17227-17235.	1.6	14
79	Synthesis and characterization of CN-modified protein analogues as potential vibrational contrast agents. <i>Bioorganic Chemistry</i> , 2007, 35, 284-293.	2.0	13
80	Evaluation of chemical labeling strategies for monitoring HCV RNA using vibrational microscopy. <i>Organic and Biomolecular Chemistry</i> , 2007, 5, 2380.	1.5	12
81	Synthesis and bioorthogonal coupling chemistry of a novel cyclopentenone-containing unnatural tyrosine analogue. <i>Bioorganic Chemistry</i> , 2008, 36, 105-111.	2.0	12
82	Hydrophobic Triaryl-Substituted $\beta$ -Lactams as Activity-Based Probes for Profiling Eukaryotic Enzymes and Host-Pathogen Interactions. <i>ChemBioChem</i> , 2014, 15, 2195-2200.	1.3	12
83	Soraphen A: A Probe for Investigating the Role of de Novo Lipogenesis during Viral Infection. <i>ACS Infectious Diseases</i> , 2015, 1, 130-134.	1.8	12
84	Armand-Frappier Outstanding Student Award "The emerging role of 25-hydroxycholesterol in innate immunity. <i>Canadian Journal of Microbiology</i> , 2015, 61, 521-530.	0.8	12
85	A Novel p19 Fusion Protein as a Delivery Agent for Short-interfering RNAs. <i>Molecular Therapy - Nucleic Acids</i> , 2016, 5, e303.	2.3	12
86	Activity-Based Phosphatidylinositol Kinase Probes Detect Changes to Protein-Protein Interactions During Hepatitis C Virus Replication. <i>ACS Infectious Diseases</i> , 2018, 4, 752-757.	1.8	12
87	Studies of a viral suppressor of RNA silencing p19-CFP fusion protein: A FRET-based probe for sensing double-stranded fluorophore tagged small RNAs. <i>Biophysical Chemistry</i> , 2009, 143, 166-169.	1.5	11
88	Chemistry and Kinetics of Dipropylcarbene in Solution. <i>Journal of Physical Chemistry A</i> , 1999, 103, 5336-5342.	1.1	10
89	Rapid Screening and Identification of Living Pathogenic Organisms via Optimized Bioorthogonal Non-canonical Amino Acid Tagging. <i>Cell Chemical Biology</i> , 2017, 24, 1048-1055.e3.	2.5	10
90	Chemical Methods for Probing Virus-Host Proteomic Interactions. <i>ACS Infectious Diseases</i> , 2016, 2, 773-786.	1.8	9

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91	ABPP and Host-Virus Interactions. <i>Current Topics in Microbiology and Immunology</i> , 2018, 420, 131-154.	0.7	9
92	Small Molecule Inhibition of Protein Disulfide Isomerase in Neuroblastoma Cells Induces an Oxidative Stress Response and Apoptosis Pathways. <i>ACS Chemical Neuroscience</i> , 2019, 10, 4068-4075.	1.7	9
93	Cycloadditions of Trans $\alpha$ -Cyclooctenes and Nitrones as Tools for Bioorthogonal Labelling. <i>ChemBioChem</i> , 2020, 21, 948-951.	1.3	9
94	Profiling of MicroRNA Targets Using Activity-Based Protein Profiling: Linking Enzyme Activity to MicroRNA-185 Function. <i>Cell Chemical Biology</i> , 2021, 28, 202-212.e6.	2.5	9
95	Bleomycin is a Potent Small-Molecule Inhibitor of Hepatitis C Virus Replication. <i>ChemBioChem</i> , 2006, 7, 1330-1333.	1.3	7
96	Profiling Kinase Activity during Hepatitis C Virus Replication Using a Wortmannin Probe. <i>ACS Infectious Diseases</i> , 2015, 1, 443-452.	1.8	7
97	Visualization of the Delivery and Release of Small RNAs Using Genetic Code Expansion and Unnatural RNA-Binding Proteins. <i>Bioconjugate Chemistry</i> , 2018, 29, 3982-3986.	1.8	7
98	Fungal natural alkaloid schizocommunin activates the aryl hydrocarbon receptor pathway. <i>MedChemComm</i> , 2019, 10, 985-990.	3.5	7
99	miR-383 Regulates Hepatic Lipid Homeostasis and Response to Dengue Virus Infection. <i>ACS Infectious Diseases</i> , 2022, 8, 928-941.	1.8	7
100	Fine-tuning acetyl-CoA carboxylase 1 activity through localization: functional genomics reveals a role for the lysine acetyltransferase NuA4 and sphingolipid metabolism in regulating Acc1 activity and localization. <i>Genetics</i> , 2022, 221, .	1.2	7
101	S-Nitrosylation of Cross-Linked Hemoglobins at $\beta$ -Cysteine-93: $\beta$ -Stabilized Hemoglobins as Nitric Oxide Sources. <i>Journal of the American Chemical Society</i> , 2000, 122, 10734-10735.	6.6	6
102	Rates of release of nitric oxide from HbSNO and internal electron transfer. <i>Bioorganic Chemistry</i> , 2003, 31, 3-10.	2.0	6
103	Activity-based profiling of the proteasome pathway during hepatitis C virus infection. <i>Proteomics</i> , 2015, 15, 3815-3825.	1.3	6
104	Structural insights into interactions between viral suppressor of RNA silencing protein p19 mutants and small RNAs. <i>FEBS Open Bio</i> , 2019, 9, 1042-1051.	1.0	6
105	Optimized aqueous Kinugasa reactions for bioorthogonal chemistry applications. <i>Chemical Communications</i> , 2020, 56, 1988-1991.	2.2	6
106	microRNA-27b regulates hepatic lipase enzyme LIPC and reduces triglyceride degradation during hepatitis C virus infection. <i>Journal of Biological Chemistry</i> , 2022, 298, 101983.	1.6	6
107	Predicting reactivity for bioorthogonal cycloadditions involving nitrones. <i>RSC Advances</i> , 2020, 10, 29306-29310.	1.7	5
108	A Bifunctional Nucleoside Probe for the Inhibition of the Human Immunodeficiency Virus-Type 1 Reverse Transcriptase. <i>Bioconjugate Chemistry</i> , 2020, 31, 1537-1544.	1.8	5

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109	Silicon and silicon oxide surface modification using thiamine-catalyzed benzoin condensations. Canadian Journal of Chemistry, 2012, 90, 262-270.	0.6	4
110	Site-Specific Cross-Linking of a p19 Viral Suppressor of RNA Silencing Protein and Its RNA Targets Using an Expanded Genetic Code. Biochemistry, 2019, 58, 3520-3526.	1.2	4
111	Phenanthridine-based nitrones as substrates for strain-promoted alkyne-nitrone cycloadditions. Canadian Journal of Chemistry, 2019, 97, 1-6.	0.6	4
112	Picoliter Wells from Selective Growth of HEK293 Cells on Chemically Modified PDMS Surfaces. Journal of Biomaterials Applications, 2007, 21, 235-249.	1.2	3
113	6-Hydroxydopamine Inhibits the Hepatitis C Virus through Alkylation of Host and Viral Proteins and the Induction of Oxidative Stress. ACS Infectious Diseases, 2016, 2, 863-871.	1.8	3
114	Reactivity of <i>N</i> -acyl hydrazone probes with the mammalian proteome. RSC Medicinal Chemistry, 2021, 12, 797-803.	1.7	3
115	Intramolecular cyclization and subsequent rearrangements of alkyne-tethered N-heterocyclic carbenes. Tetrahedron Letters, 2012, 53, 5663-5666.	0.7	2
116	An affinity-based probe for methyltransferase enzymes based on sinefungin. Canadian Journal of Chemistry, 2017, 95, 1059-1063.	0.6	2
117	Hepatitis C Virus Helicase Binding Activity Monitored through Site-Specific Labeling Using an Expanded Genetic Code. ACS Infectious Diseases, 2019, 5, 2118-2126.	1.8	2
118	Taking Aim at Host-Pathogen Interactions. ACS Infectious Diseases, 2016, 2, 744-745.	1.8	1
119	Knock Out of Cell Death Pathway Components Results in Differential Caspase Expression in Response to HCV Infection. Proceedings (mdpi), 2020, 50, .	0.2	0
120	Reply to Zhang and Zhu –MicroRNA Mimics or Inhibitors as Antiviral Therapeutic Approaches Against COVID-19–. Drugs, 2021, 81, 1693-1695.	4.9	0