

Richard M Higashi

List of Publications by Year in descending order

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87
papers

6,734
citations

76196

40
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64668

79
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docs citations

94
times ranked

8994
citing authors

#	ARTICLE	IF	CITATIONS
1	NMR Methods for Determining Lipid Turnover via Stable Isotope Resolved Metabolomics. <i>Metabolites</i> , 2021, 11, 202.	1.3	9
2	Blockade of 6-phosphogluconate dehydrogenase generates CD8+ effector T cells with enhanced anti-tumor function. <i>Cell Reports</i> , 2021, 34, 108831.	2.9	23
3	Innate immune activation by checkpoint inhibition in human patient-derived lung cancer tissues. <i>ELife</i> , 2021, 10, .	2.8	17
4	Rapid analysis of S-adenosylmethionine (SAM) and S-adenosylhomocysteine (SAH) isotopologues in stable isotope-resolved metabolomics (SIRM) using direct infusion nanoelectrospray ultra-high-resolution Fourier transform mass spectrometry (DI-nESI-UHR-FTMS). <i>Analytica Chimica Acta</i> , 2021, 1181, 338873.	2.6	4
5	An Ion Chromatography-Independent High-Resolution MS Method for Stable Isotope-Resolved Metabolomics Reconstruction of Central Metabolic Networks. <i>Analytical Chemistry</i> , 2021, 93, 2749-2757.	3.2	9
6	6-Phosphogluconate dehydrogenase (6PGD), a key checkpoint in reprogramming of regulatory T cells metabolism and function. <i>ELife</i> , 2021, 10, .	2.8	17
7	Applications of chromatography-ultra high-resolution MS for stable isotope-resolved metabolomics (SIRM) reconstruction of metabolic networks. <i>TrAC - Trends in Analytical Chemistry</i> , 2020, 123, 115676.	5.8	9
8	Metabolic reprogramming in tumors: Contributions of the tumor microenvironment. <i>Genes and Diseases</i> , 2020, 7, 185-198.	1.5	45
9	Resolving Metabolic Heterogeneity in Experimental Models of the Tumor Microenvironment from a Stable Isotope Resolved Metabolomics Perspective. <i>Metabolites</i> , 2020, 10, 249.	1.3	9
10	Nitric oxide orchestrates metabolic rewiring in M1 macrophages by targeting aconitase 2 and pyruvate dehydrogenase. <i>Nature Communications</i> , 2020, 11, 698.	5.8	232
11	Differential Abundance Analysis with Bayes Shrinkage Estimation of Variance (DASEV) for Zero-Inflated Proteomic and Metabolomic Data. <i>Scientific Reports</i> , 2020, 10, 876.	1.6	2
12	Software Supporting a Workflow of Quantitative Dynamic Flux Maps Estimation in Central Metabolism from SIRM Experimental Data. <i>Methods in Molecular Biology</i> , 2020, 2088, 271-298.	0.4	3
13	Inhibition of Anaplerotic Glutaminolysis Underlies Selenite Toxicity in Human Lung Cancer. <i>Proteomics</i> , 2019, 19, e1800486.	1.3	15
14	De novo synthesis of serine and glycine fuels purine nucleotide biosynthesis in human lung cancer tissues. <i>Journal of Biological Chemistry</i> , 2019, 294, 13464-13477.	1.6	58
15	Improved segmented-scan spectral stitching for stable isotope resolved metabolomics (SIRM) by ultra-high-resolution Fourier transform mass spectrometry. <i>Analytica Chimica Acta</i> , 2019, 1080, 104-115.	2.6	5
16	Metabolic reprogramming and Notch activity distinguish between non-small cell lung cancer subtypes. <i>British Journal of Cancer</i> , 2019, 121, 51-64.	2.9	33
17	NMR and MS-based Stable Isotope-Resolved Metabolomics and applications in cancer metabolism. <i>TrAC - Trends in Analytical Chemistry</i> , 2019, 120, 115322.	5.8	29
18	Quantification of Isotopologues of Amino Acids by Multiplexed Stable Isotope-Resolved Metabolomics Using Ultrahigh-Resolution Mass Spectrometry Coupled with Direct Infusion. <i>Methods in Molecular Biology</i> , 2019, 2030, 57-68.	0.4	2

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19	Exosomal lipids for classifying early and late stage non-small cell lung cancer. <i>Analytica Chimica Acta</i> , 2018, 1037, 256-264.	2.6	72
20	Acute loss of iron-sulfur clusters results in metabolic reprogramming and generation of lipid droplets in mammalian cells. <i>Journal of Biological Chemistry</i> , 2018, 293, 8297-8311.	1.6	70
21	Selenium toxicity to survival and reproduction of Collembola and Enchytraeids in a sandy loam soil. <i>Environmental Toxicology and Chemistry</i> , 2018, 37, 846-853.	2.2	4
22	Quantitative profiling of carbonyl metabolites directly in crude biological extracts using chemoselective tagging and nanoESI-FTMS. <i>Analyst</i> , 2018, 143, 311-322.	1.7	20
23	New methods to identify high peak density artifacts in Fourier transform mass spectra and to mitigate their effects on high-throughput metabolomic data analysis. <i>Metabolomics</i> , 2018, 14, 125.	1.4	14
24	Probing the metabolic phenotype of breast cancer cells by multiple tracer stable isotope resolved metabolomics. <i>Metabolic Engineering</i> , 2017, 43, 125-136.	3.6	45
25	Exploring cancer metabolism using stable isotope-resolved metabolomics (SIRM). <i>Journal of Biological Chemistry</i> , 2017, 292, 11601-11609.	1.6	80
26	Chloroformate derivatization for tracing the fate of Amino acids in cells and tissues by multiple stable isotope resolved metabolomics (mSIRM). <i>Analytica Chimica Acta</i> , 2017, 976, 63-73.	2.6	37
27	Noninvasive liquid diet delivery of stable isotopes into mouse models for deep metabolic network tracing. <i>Nature Communications</i> , 2017, 8, 1646.	5.8	74
28	Distinctly perturbed metabolic networks underlie differential tumor tissue damages induced by immune modulator β -glucan in a two-case ex vivo non-small-cell lung cancer study. <i>Journal of Physical Education and Sports Management</i> , 2016, 2, a000893.	0.5	52
29	An obligatory role for neurotensin in high-fat-diet-induced obesity. <i>Nature</i> , 2016, 533, 411-415.	13.7	202
30	Preclinical models for interrogating drug action in human cancers using Stable Isotope Resolved Metabolomics (SIRM). <i>Metabolomics</i> , 2016, 12, 1.	1.4	24
31	Stable Isotope Resolved Metabolomics Studies in ex vivo Tissue Slices. <i>Bio-protocol</i> , 2016, 6, .	0.2	42
32	Pyruvate carboxylase is critical for non-small-cell lung cancer proliferation. <i>Journal of Clinical Investigation</i> , 2015, 125, 687-698.	3.9	407
33	Chemoselective detection and discrimination of carbonyl-containing compounds in metabolite mixtures by ^1H -detected ^{15}N nuclear magnetic resonance. <i>Magnetic Resonance in Chemistry</i> , 2015, 53, 337-343.	1.1	22
34	Dectin-1 Activation by a Natural Product β -Glucan Converts Immunosuppressive Macrophages into an M1-like Phenotype. <i>Journal of Immunology</i> , 2015, 195, 5055-5065.	0.4	129
35	Profiling thiol metabolites and quantification of cellular glutathione using FT-ICR-MS spectrometry. <i>Analytical and Bioanalytical Chemistry</i> , 2014, 406, 4371-4379.	1.9	21
36	Targeting Lactate Dehydrogenase-A Inhibits Tumorigenesis and Tumor Progression in Mouse Models of Lung Cancer and Impacts Tumor-Initiating Cells. <i>Cell Metabolism</i> , 2014, 19, 795-809.	7.2	411

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37	Knockdown of Malic Enzyme 2 Suppresses Lung Tumor Growth, Induces Differentiation and Impacts PI3K/AKT Signaling. <i>Scientific Reports</i> , 2014, 4, 5414.	1.6	73
38	Stable Isotope-Labeled Tracers for Metabolic Pathway Elucidation by GC-MS and FT-MS. <i>Methods in Molecular Biology</i> , 2014, 1198, 147-167.	0.4	42
39	A microfabricated preconcentration device for breath analysis. <i>Sensors and Actuators B: Chemical</i> , 2013, 180, 130-136.	4.0	31
40	High information throughput analysis of nucleotides and their isotopically enriched isotopologues by direct-infusion FTICR-MS. <i>Metabolomics</i> , 2012, 8, 930-939.	1.4	52
41	A carbonyl capture approach for profiling oxidized metabolites in cell extracts. <i>Metabolomics</i> , 2012, 8, 989-996.	1.4	30
42	Glucose-Independent Glutamine Metabolism via TCA Cycling for Proliferation and Survival in B Cells. <i>Cell Metabolism</i> , 2012, 15, 110-121.	7.2	923
43	The Metabolic Profile of Tumors Depends on Both the Responsible Genetic Lesion and Tissue Type. <i>Cell Metabolism</i> , 2012, 15, 157-170.	7.2	553
44	Preconcentration and Analysis of Trace Volatile Carbonyl Compounds. <i>Analytical Chemistry</i> , 2012, 84, 1288-1293.	3.2	48
45	Stable isotope-resolved metabolomics and applications for drug development. , 2012, 133, 366-391.		186
46	Introduction to Metabolomics. <i>Methods in Pharmacology and Toxicology</i> , 2012, , 1-6.	0.1	0
47	A novel microreactor approach for analysis of ketones and aldehydes in breath. <i>Analyst, The</i> , 2011, 136, 4662.	1.7	29
48	Stable isotope resolved metabolomics of lung cancer in a SCID mouse model. <i>Metabolomics</i> , 2011, 7, 257-269.	1.4	98
49	A novel deconvolution method for modeling UDP-N-acetyl-D-glucosamine biosynthetic pathways based on ¹³ C mass isotopologue profiles under non-steady-state conditions. <i>BMC Biology</i> , 2011, 9, 37.	1.7	73
50	Stable Isotope-Resolved Metabolomics (SIRM) in Cancer Research with Clinical Application to NonSmall Cell Lung Cancer. <i>OMICS A Journal of Integrative Biology</i> , 2011, 15, 173-182.	1.0	82
51	Stable isotope-resolved metabolomic analysis of lithium effects on glial-neuronal metabolism and interactions. <i>Metabolomics</i> , 2010, 6, 165-179.	1.4	57
52	Prospects for clinical cancer metabolomics using stable isotope tracers. <i>Experimental and Molecular Pathology</i> , 2009, 86, 165-173.	0.9	42
53	Metabolic profiling identifies lung tumor responsiveness to erlotinib. <i>Experimental and Molecular Pathology</i> , 2009, 87, 83-86.	0.9	25
54	Isotopomer analysis of lipid biosynthesis by high resolution mass spectrometry and NMR. <i>Analytica Chimica Acta</i> , 2009, 651, 201-208.	2.6	79

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55	Metabolic acidosis and the importance of balanced equations. <i>Metabolomics</i> , 2009, 5, 163-165.	1.4	27
56	Altered regulation of metabolic pathways in human lung cancer discerned by ¹³ C stable isotope-resolved metabolomics (SIRM). <i>Molecular Cancer</i> , 2009, 8, 41.	7.9	369
57	Stable isotope-assisted metabolomics in cancer research. <i>IUBMB Life</i> , 2008, 60, 124-129.	1.5	40
58	Rhabdomyosarcoma cells show an energy producing anabolic metabolic phenotype compared with primary myocytes. <i>Molecular Cancer</i> , 2008, 7, 79.	7.9	61
59	Isotopomer-Based Metabolomic Analysis by NMR and Mass Spectrometry. <i>Methods in Cell Biology</i> , 2008, 84, 541-588.	0.5	109
60	Integrating Metabolomics and Transcriptomics for Probing Se Anticancer Mechanisms. <i>Drug Metabolism Reviews</i> , 2006, 38, 707-732.	1.5	56
61	Metabolomics-edited transcriptomics analysis of Se anticancer action in human lung cancer cells. <i>Metabolomics</i> , 2006, 1, 325-339.	1.4	57
62	¹³ C-Tracer Studies of Soil Humic Substructures That Reduce Heavy Metal Leaching. <i>ACS Symposium Series</i> , 2005, , 138-157.	0.5	3
63	An electrophoretic profiling method for thiol-rich phytochelatin and metallothioneins. <i>Phytochemical Analysis</i> , 2004, 15, 175-183.	1.2	24
64	Chronic Effects of Dietary Selenium on Juvenile Sacramento Splittail (<i>Pogonichthys macrolepidotus</i>). <i>Environmental Science & Technology</i> , 2004, 38, 6085-6093.	4.6	64
65	The promise of metabolomics in cancer molecular therapeutics. <i>Current Opinion in Molecular Therapeutics</i> , 2004, 6, 584-92.	2.8	31
66	Selenium biotransformations into proteinaceous forms by foodweb organisms of selenium-laden drainage waters in California. <i>Aquatic Toxicology</i> , 2002, 57, 65-84.	1.9	192
67	Comprehensive chemical profiling of gramineous plant root exudates using high-resolution NMR and MS. <i>Phytochemistry</i> , 2001, 57, 209-221.	1.4	173
68	Title is missing!. <i>Aquatic Ecology</i> , 2000, 34, 413-420.	0.7	17
69	Genotypic Influence on Metal Ion Mobilization and Sequestration via Metal Ion Ligand Production by Wheat. <i>ACS Symposium Series</i> , 2000, , 417-431.	0.5	3
70	Chemical Characterization of a Chelator-Treated Soil Humate by Solution-State Multinuclear Two-Dimensional NMR with FTIR and Pyrolysis-GCMS. <i>Environmental Science & Technology</i> , 2000, 34, 1636-1646.	4.6	49
71	Sorption-desorption behavior of phenanthrene elucidated by pyrolysis-gas chromatography-mass spectrometry studies of soil organic matter. <i>Environmental Toxicology and Chemistry</i> , 1999, 18, 1710-1719.	2.2	11
72	Synthesis and structure characterization of selenium metabolites. <i>Analyst</i> , The, 1998, 123, 875-884.	1.7	46

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73	Association of desferrioxamine with humic substances and their interaction with cadmium(II) as studied by pyrolysis-gas chromatography-mass spectrometry and nuclear magnetic resonance spectroscopy. <i>Analyst, The</i> , 1998, 123, 911-918.	1.7	25
74	Biotransformations of Selenium Oxyanion by Filamentous Cyanophyte-Dominated Mat Cultured from Agricultural Drainage Waters. <i>Environmental Science & Technology</i> , 1998, 32, 3185-3193.	4.6	47
75	Anaerobic nitrate and ammonium metabolism in flood-tolerant rice coleoptiles. <i>Journal of Experimental Botany</i> , 1997, 48, 1655-1666.	2.4	67
76	Selenium Biotransformations by a Euryhaline Microalga Isolated from a Saline Evaporation Pond. <i>Environmental Science & Technology</i> , 1997, 31, 569-576.	4.6	82
77	Comprehensive Analysis of Organic Ligands in Whole Root Exudates Using Nuclear Magnetic Resonance and Gas Chromatography-Mass Spectrometry. <i>Analytical Biochemistry</i> , 1997, 251, 57-68.	1.1	132
78	Energy and Fermentation Metabolism in Hypoxic Rice Coleoptiles - A Multinuclear NMR Approach. , 1993, , 333-352.		5
79	Temperature dependence of arginine kinase reaction in the tail muscle of live <i>Sycionia ingentis</i> as measured in vivo by 31P-NMR driven saturation transfer. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 1992, 1135, 44-49.	1.9	9
80	Hypoxia does not affect rate of ATP synthesis and energy metabolism in rice shoot tips as measured by 31P NMR in vivo. <i>Archives of Biochemistry and Biophysics</i> , 1992, 294, 314-318.	1.4	28
81	Emergence and recovery response of phosphate metabolites and intracellular pH in intact <i>Mytilus edulis</i> as examined in situ by in vivo 31P-NMR. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 1991, 1092, 39-47.	1.9	25
82	Sublethal effects of pentachlorophenol in the abalone (<i>haliotis rufescens</i>) as measured by in vivo 31P NMRSpectroscopy. <i>Journal of Biochemical Toxicology</i> , 1991, 6, 45-56.	0.5	29
83	Monitoring of metabolic responses of intact <i>Haliotis</i> (abalones) under salinity stress by 31P surface probe localized NMR. <i>The Journal of Experimental Zoology</i> , 1989, 249, 350-356.	1.4	22
84	Reproducible nuclear magnetic resonance surface coil fabrication by combining computer-aided-design and a photoresist process. <i>Analytical Chemistry</i> , 1989, 61, 636-638.	3.2	16
85	An in vivo 1H and 31P NMR investigation of the effect of nitrate on hypoxic metabolism in maize roots. <i>Archives of Biochemistry and Biophysics</i> , 1988, 266, 592-606.	1.4	57
86	Monitoring of hypoxic metabolism in superfused plant tissues by in vivo 1H NMR. <i>Archives of Biochemistry and Biophysics</i> , 1986, 251, 674-687.	1.4	34
87	Combined use of 1H-NMR and GC-MS for metabolite monitoring and in vivo 1H-NMR assignments. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 1986, 882, 154-167.	1.1	149