## Jeremy K Nicholson

List of Publications by Year in descending order

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		293	507
791	91,144	139	268
papers	citations	h-index	g-index
828	828	828	59662
all docs	docs citations	times ranked	citing authors

#	Article	IF	CITATIONS
1	Host-Gut Microbiota Metabolic Interactions. Science, 2012, 336, 1262-1267.	6.0	3,693
2	'Metabonomics': understanding the metabolic responses of living systems to pathophysiological stimuli via multivariate statistical analysis of biological NMR spectroscopic data. Xenobiotica, 1999, 29, 1181-1189.	0.5	3,429
3	Metabolic profiling, metabolomic and metabonomic procedures for NMR spectroscopy of urine, plasma, serum and tissue extracts. Nature Protocols, 2007, 2, 2692-2703.	5.5	1,830
4	Metabonomics: a platform for studying drug toxicity and gene function. Nature Reviews Drug Discovery, 2002, 1, 153-161.	21.5	1,739
5	Metabonomics. Nature, 2008, 455, 1054-1056.	13.7	1,660
6	OPLS discriminant analysis: combining the strengths of PLS-DA and SIMCA classification. Journal of Chemometrics, 2006, 20, 341-351.	0.7	1,134
7	Gut Microbiomes of Malawian Twin Pairs Discordant for Kwashiorkor. Science, 2013, 339, 548-554.	6.0	1,012
8	Impact of the gut microbiota on inflammation, obesity, and metabolic disease. Genome Medicine, 2016, 8, 42.	3.6	1,000
9	Symbiotic gut microbes modulate human metabolic phenotypes. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 2117-2122.	3.3	994
10	Understanding 'Global' Systems Biology: Metabonomics and the Continuum of Metabolism. Nature Reviews Drug Discovery, 2003, 2, 668-676.	21.5	975
11	750 MHz 1H and 1H-13C NMR Spectroscopy of Human Blood Plasma. Analytical Chemistry, 1995, 67, 793-811.	3.2	972
12	Human metabolic phenotype diversity and its association with diet and blood pressure. Nature, 2008, 453, 396-400.	13.7	966
13	Metabolic profiling reveals a contribution of gut microbiota to fatty liver phenotype in insulin-resistant mice. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 12511-12516.	3.3	948
14	Rapid and noninvasive diagnosis of the presence and severity of coronary heart disease using 1H-NMR-based metabonomics. Nature Medicine, 2002, 8, 1439-1445.	15.2	941
15	Global metabolic profiling procedures for urine using UPLC–MS. Nature Protocols, 2010, 5, 1005-1018.	5.5	867
16	Gut microorganisms, mammalian metabolism and personalized health care. Nature Reviews Microbiology, 2005, 3, 431-438.	13.6	861
17	Statistical Total Correlation Spectroscopy:Â An Exploratory Approach for Latent Biomarker Identification from Metabolic1H NMR Data Sets. Analytical Chemistry, 2005, 77, 1282-1289.	3.2	833
18	Pharmaco-metabonomic phenotyping and personalized drug treatment. Nature, 2006, 440, 1073-1077.	13.7	787

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19	Global metabolic profiling of animal and human tissues via UPLC-MS. Nature Protocols, 2013, 8, 17-32.	5.5	774
20	Fat, fibre and cancer risk in African Americans and rural Africans. Nature Communications, 2015, 6, 6342.	5.8	761
21	Metabolic Phenotyping in Health and Disease. Cell, 2008, 134, 714-717.	13.5	711
22	Symbiotic Bacterial Metabolites Regulate Gastrointestinal Barrier Function via the Xenobiotic Sensor PXR and Toll-like Receptor 4. Immunity, 2014, 41, 296-310.	6.6	708
23	Pharmacometabonomic identification of a significant host-microbiome metabolic interaction affecting human drug metabolism. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 14728-14733.	3.3	665
24	Gut microbiota modulation of chemotherapy efficacy and toxicity. Nature Reviews Gastroenterology and Hepatology, 2017, 14, 356-365.	8.2	643
25	Systemic gut microbial modulation of bile acid metabolism in host tissue compartments. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 4523-4530.	3.3	625
26	Preparing for Precision Medicine. New England Journal of Medicine, 2012, 366, 489-491.	13.9	579
27	High resolution proton magnetic resonance spectroscopy of biological fluids. Progress in Nuclear Magnetic Resonance Spectroscopy, 1989, 21, 449-501.	3.9	570
28	Evaluation of the Orthogonal Projection on Latent Structure Model Limitations Caused by Chemical Shift Variability and Improved Visualization of Biomarker Changes in1H NMR Spectroscopic Metabonomic Studies. Analytical Chemistry, 2005, 77, 517-526.	3.2	553
29	Gut microbiome-host interactions in health and disease. Genome Medicine, 2011, 3, 14.	3.6	550
30	Improved WATERGATE Pulse Sequences for Solvent Suppression in NMR Spectroscopy. Journal of Magnetic Resonance, 1998, 132, 125-129.	1.2	518
31	Intraoperative Tissue Identification Using Rapid Evaporative Ionization Mass Spectrometry. Science Translational Medicine, 2013, 5, 194ra93.	5.8	488
32	Molecular phenomics and metagenomics of hepatic steatosis in non-diabetic obese women. Nature Medicine, 2018, 24, 1070-1080.	15.2	465
33	Integrated Metabonomic Analysis of the Multiorgan Effects of Hydrazine Toxicity in the Rat. Chemical Research in Toxicology, 2005, 18, 115-122.	1.7	464
34	Understanding the role of gut microbiome–host metabolic signal disruption in health and disease. Trends in Microbiology, 2011, 19, 349-359.	3.5	452
35	Metabolic phenotyping in clinical and surgical environments. Nature, 2012, 491, 384-392.	13.7	450
36	Gut microbiome interactions with drug metabolism, efficacy, and toxicity. Translational Research, 2017, 179, 204-222.	2.2	439

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37	Scaling and Normalization Effects in NMR Spectroscopic Metabonomic Data Sets. Analytical Chemistry, 2006, 78, 2262-2267.	3.2	438
38	Gut Microbiota Composition and Activity in Relation to Host Metabolic Phenotype and Disease Risk. Cell Metabolism, 2012, 16, 559-564.	7.2	438
39	UPLC/MSE; a new approach for generating molecular fragment information for biomarker structure elucidation. Rapid Communications in Mass Spectrometry, 2006, 20, 1989-1994.	0.7	434
40	Gut microbiota: a potential new territory for drug targeting. Nature Reviews Drug Discovery, 2008, 7, 123-129.	21.5	426
41	Metabonomics technologies and their applications in physiological monitoring, drug safety assessment and disease diagnosis. Biomarkers, 2004, 9, 1-31.	0.9	425
42	NMR-based metabonomic approaches for evaluating physiological influences on biofluid composition. NMR in Biomedicine, 2005, 18, 143-162.	1.6	425
43	High Resolution "Ultra Performance―Liquid Chromatography Coupled to oa-TOF Mass Spectrometry as a Tool for Differential Metabolic Pathway Profiling in Functional Genomic Studies. Journal of Proteome Research, 2005, 4, 591-598.	1.8	423
44	A topâ€down systems biology view of microbiomeâ€mammalian metabolic interactions in a mouse model. Molecular Systems Biology, 2007, 3, 112.	3.2	420
45	Precision High-Throughput Proton NMR Spectroscopy of Human Urine, Serum, and Plasma for Large-Scale Metabolic Phenotyping. Analytical Chemistry, 2014, 86, 9887-9894.	3.2	419
46	Metabolic Profiling of Human Colorectal Cancer Using High-Resolution Magic Angle Spinning Nuclear Magnetic Resonance (HR-MAS NMR) Spectroscopy and Gas Chromatography Mass Spectrometry (GC/MS). Journal of Proteome Research, 2009, 8, 352-361.	1.8	414
47	Metabonomics: Metabolic processes studied by NMR spectroscopy of biofluids. Concepts in Magnetic Resonance, 2000, 12, 289-320.	1.3	401
48	Probiotic modulation of symbiotic gut microbial–host metabolic interactions in a humanized microbiome mouse model. Molecular Systems Biology, 2008, 4, 157.	3.2	392
49	Metabolic surgery profoundly influences gut microbial-host metabolic cross-talk. Gut, 2011, 60, 1214-1223.	6.1	391
50	Pattern recognition methods and applications in biomedical magnetic resonance. Progress in Nuclear Magnetic Resonance Spectroscopy, 2001, 39, 1-40.	3.9	384
51	Contemporary issues in toxicology the role of metabonomics in toxicology and its evaluation by the COMET project. Toxicology and Applied Pharmacology, 2003, 187, 137-146.	1.3	374
52	High-resolution magic-angle-spinning NMR spectroscopy for metabolic profiling of intact tissues. Nature Protocols, 2010, 5, 1019-1032.	5.5	355
53	The challenges of modeling mammalian biocomplexity. Nature Biotechnology, 2004, 22, 1268-1274.	9.4	351
54	Quantifying Diet-Induced Metabolic Changes of the Human Gut Microbiome. Cell Metabolism, 2015, 22, 320-331.	7.2	345

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55	Colonization-Induced Host-Gut Microbial Metabolic Interaction. MBio, 2011, 2, e00271-10.	1.8	342
56	Susceptibility of Human Metabolic Phenotypes to Dietary Modulation. Journal of Proteome Research, 2006, 5, 2780-2788.	1.8	337
57	Assessment of Analytical Reproducibility of1H NMR Spectroscopy Based Metabonomics for Large-Scale Epidemiological Research:Â the INTERMAP Study. Analytical Chemistry, 2006, 78, 2199-2208.	3.2	332
58	Statistical Heterospectroscopy, an Approach to the Integrated Analysis of NMR and UPLC-MS Data Sets: Application in Metabonomic Toxicology Studies. Analytical Chemistry, 2006, 78, 363-371.	3.2	330
59	Global systems biology, personalized medicine and molecular epidemiology. Molecular Systems Biology, 2006, 2, 52.	3.2	328
60	Microbiome–host systems interactions: protective effects of propionate upon the blood–brain barrier. Microbiome, 2018, 6, 55.	4.9	324
61	Cervical intraepithelial neoplasia disease progression is associated with increased vaginal microbiome diversity. Scientific Reports, 2015, 5, 16865.	1.6	320
62	NMR Spectroscopy of Biofluids. Annual Reports on NMR Spectroscopy, 1999, 38, 1-88.	0.7	314
63	Dietary Modulation of Gut Microbiota Contributes to Alleviation of Both Genetic and Simple Obesity in Children. EBioMedicine, 2015, 2, 968-984.	2.7	306
64	Systemic multicompartmental effects of the gut microbiome on mouse metabolic phenotypes. Molecular Systems Biology, 2008, 4, 219.	3.2	304
65	Recursive Segment-Wise Peak Alignment of Biological <sup>1</sup> H NMR Spectra for Improved Metabolic Biomarker Recovery. Analytical Chemistry, 2009, 81, 56-66.	3.2	303
66	An NMR-based metabonomic approach to investigate the biochemical consequences of genetic strain differences: application to the C57BL10J and Alpk:ApfCD mouse. FEBS Letters, 2000, 484, 169-174.	1.3	291
67	NMR-Based Metabolic Profiling and Metabonomic Approaches to Problems in Molecular Toxicology. Chemical Research in Toxicology, 2008, 21, 9-27.	1.7	289
68	Use of high-resolution proton nuclear magnetic resonance spectroscopy for rapid multi-component analysis of urine Clinical Chemistry, 1984, 30, 426-432.	1.5	286
69	Proton-nuclear-magnetic-resonance studies of serum, plasma and urine from fasting normal and diabetic subjects. Biochemical Journal, 1984, 217, 365-375.	1.7	283
70	Chemometric Models for Toxicity Classification Based on NMR Spectra of Biofluids. Chemical Research in Toxicology, 2000, 13, 471-478.	1.7	277
71	The Consortium for Metabonomic Toxicology (COMET): aims, activities and achievements. Pharmacogenomics, 2005, 6, 691-699.	0.6	277
72	Urinary Metabolic Phenotyping Differentiates Children with Autism from Their Unaffected Siblings and Age-Matched Controls. Journal of Proteome Research, 2010, 9, 2996-3004.	1.8	277

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73	Nuclear Magnetic Resonance Spectroscopic and Principal Components Analysis Investigations into Biochemical Effects of Three Model Hepatotoxins. Chemical Research in Toxicology, 1998, 11, 260-272.	1.7	276
74	The gut microbiota influences skeletal muscle mass and function in mice. Science Translational Medicine, 2019, 11, .	5.8	271
75	Spectroscopic and Statistical Techniques for Information Recovery in Metabonomics and Metabolomics. Annual Review of Analytical Chemistry, 2008, 1, 45-69.	2.8	270
76	The Footprints of Gut Microbial–Mammalian Co-Metabolism. Journal of Proteome Research, 2011, 10, 5512-5522.	1.8	268
77	The interaction between vaginal microbiota, cervical length, and vaginal progesterone treatment for preterm birth risk. Microbiome, 2017, 5, 6.	4.9	266
78	Metabonomic investigations in mice infected with Schistosoma mansoni: An approach for biomarker identification. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 12676-12681.	3.3	265
79	Hippurate: The Natural History of a Mammalian–Microbial Cometabolite. Journal of Proteome Research, 2013, 12, 1527-1546.	1.8	263
80	Analytical Reproducibility in1H NMR-Based Metabonomic Urinalysis. Chemical Research in Toxicology, 2002, 15, 1380-1386.	1.7	261
81	Summary recommendations for standardization and reporting of metabolic analyses. Nature Biotechnology, 2005, 23, 833-838.	9.4	261
82	Metabonomics in pharmaceutical R & D. FEBS Journal, 2007, 274, 1140-1151.	2.2	258
83	Metabonomics Techniques and Applications to Pharmaceutical Research & Development. Pharmaceutical Research, 2006, 23, 1075-1088.	1.7	256
84	An Integrated Metabonomic Investigation of Acetaminophen Toxicity in the Mouse Using NMR Spectroscopy. Chemical Research in Toxicology, 2003, 16, 295-303.	1.7	245
85	A Metabonomic Strategy for the Detection of the Metabolic Effects of Chamomile (Matricaria) Tj ETQq1 1 0.7843	814 rgBT / 2.4	Overlock 10 243
86	Metabolic Profiling of CSF: Evidence That Early Intervention May Impact on Disease Progression and Outcome in Schizophrenia. PLoS Medicine, 2006, 3, e327.	3.9	242
87	Optimized Preprocessing of Ultra-Performance Liquid Chromatography/Mass Spectrometry Urinary Metabolic Profiles for Improved Information Recovery. Analytical Chemistry, 2011, 83, 5864-5872.	3.2	240
88	High resolution 1H n.m.r. studies of vertebrate blood and plasma. Biochemical Journal, 1983, 211, 605-615.	1.7	235
89	Objective Set of Criteria for Optimization of Sample Preparation Procedures for Ultra-High Throughput Untargeted Blood Plasma Lipid Profiling by Ultra Performance Liquid Chromatography–Mass Spectrometry. Analytical Chemistry, 2014, 86, 5766-5774.	3.2	234
90	Metabolic profiling strategy for discovery of nutritional biomarkers: proline betaine as a marker of citrus consumption. American Journal of Clinical Nutrition, 2010, 92, 436-443.	2.2	231

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91	Longitudinal analysis reveals that delayed bystander CD8+ TÂcell activation and early immune pathology distinguish severe COVID-19 from mild disease. Immunity, 2021, 54, 1257-1275.e8.	6.6	230
92	Top-Down Systems Biology Modeling of Host Metabotypeâ^'Microbiome Associations in Obese Rodents. Journal of Proteome Research, 2009, 8, 2361-2375.	1.8	228
93	Impact of Analytical Bias in Metabonomic Studies of Human Blood Serum and Plasma. Analytical Chemistry, 2006, 78, 4307-4318.	3.2	226
94	Global urinary metabolic profiling procedures using gas chromatography–mass spectrometry. Nature Protocols, 2011, 6, 1483-1499.	5.5	225
95	Automatic Data Reduction and Pattern Recognition Methods for Analysis of 1H Nuclear Magnetic Resonance Spectra of Human Urine from Normal and Pathological States. Analytical Biochemistry, 1994, 220, 284-296.	1.1	212
96	Use of relaxation-edited one-dimensional and two dimensional nuclear magnetic resonance spectroscopy to improve detection of small metabolites in blood plasma. Analytical Biochemistry, 2004, 325, 260-272.	1.1	212
97	NMR Spectroscopic-Based Metabonomic Studies of Urinary Metabolite Variation in Acclimatizing Germ-Free Rats. Chemical Research in Toxicology, 2003, 16, 1395-1404.	1.7	211
98	Therapeutic Modulation of Microbiota-Host Metabolic Interactions. Science Translational Medicine, 2012, 4, 137rv6.	5.8	211
99	NMR and Pattern Recognition Studies on the Time-Related Metabolic Effects of α-Naphthylisothiocyanate on Liver, Urine, and Plasma in the Rat:  An Integrative Metabonomic Approach. Chemical Research in Toxicology, 2001, 14, 1401-1412.	1.7	204
100	Metabonomic and Microbiological Analysis of the Dynamic Effect of Vancomycin-Induced Gut Microbiota Modification in the Mouse. Journal of Proteome Research, 2008, 7, 3718-3728.	1.8	202
101	Vaginal dysbiosis increases risk of preterm fetal membrane rupture, neonatal sepsis and is exacerbated by erythromycin. BMC Medicine, 2018, 16, 9.	2.3	202
102	Cryogenic Probe 13C NMR Spectroscopy of Urine for Metabonomic Studies. Analytical Chemistry, 2002, 74, 4588-4593.	3.2	200
103	Development of a model for classification of toxin-induced lesions using1H NMR spectroscopy of urine combined with pattern recognition. , 1998, 11, 235-244.		198
104	Different Levels of Polybrominated Diphenyl Ethers (PBDEs) and Chlorinated Compounds in Breast Milk from Two U.K. Regions. Environmental Health Perspectives, 2004, 112, 1085-1091.	2.8	198
105	Application of biofluid 1H nuclear magnetic resonance-based metabonomic techniques for the analysis of the biochemical effects of dietary isoflavones on human plasma profile. Analytical Biochemistry, 2003, 323, 197-204.	1.1	197
106	Objective assessment of dietary patterns by use of metabolic phenotyping: a randomised, controlled, crossover trial. Lancet Diabetes and Endocrinology,the, 2017, 5, 184-195.	5.5	194
107	Peer Reviewed: So What's the Deal with Metabonomics?. Analytical Chemistry, 2003, 75, 384 A-391 A.	3.2	189
108	Metabonomic Characterization of Genetic Variations in Toxicological and Metabolic Responses Using Probabilistic Neural Networks. Chemical Research in Toxicology, 2001, 14, 182-191.	1.7	183

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109	Assignment of resonances for â€`acute-phase' glycoproteins in high resolution proton NMR spectra of human blood plasma. FEBS Letters, 1987, 215, 311-315.	1.3	182
110	Investigations into Biochemical Changes Due to Diurnal Variation and Estrus Cycle in Female Rats Using High-Resolution 1H NMR Spectroscopy of Urine and Pattern Recognition. Analytical Biochemistry, 2001, 295, 194-202.	1.1	182
111	Metabonomic Investigations into Hydrazine Toxicity in the Rat. Chemical Research in Toxicology, 2001, 14, 975-987.	1.7	179
112	Application of chemometrics to 1H NMR spectroscopic data to investigate a relationship between human serum metabolic profiles and hypertension. Analyst, The, 2003, 128, 32-36.	1.7	179
113	Urinary metabolic signatures of human adiposity. Science Translational Medicine, 2015, 7, 285ra62.	5.8	178
114	Directly coupled HPLC–NMR and HPLC–NMR–MS in pharmaceutical research and development. Biomedical Applications, 2000, 748, 233-258.	1.7	177
115	High-resolution magic angle spinning1H NMR spectroscopic studies on intact rat renal cortex and medulla. Magnetic Resonance in Medicine, 1999, 41, 1108-1118.	1.9	172
116	Species Variation in the Fecal Metabolome Gives Insight into Differential Gastrointestinal Function. Journal of Proteome Research, 2008, 7, 352-360.	1.8	170
117	Combined HPLC, NMR Spectroscopy, and Ion-Trap Mass Spectrometry with Application to the Detection and Characterization of Xenobiotic and Endogenous Metabolites in Human Urine. Analytical Chemistry, 1996, 68, 4431-4435.	3.2	169
118	Physiological variation in metabolic phenotyping and functional genomic studies: use of orthogonal signal correction and PLS-DA. FEBS Letters, 2002, 530, 191-196.	1.3	169
119	Bile Acid Profiling and Quantification in Biofluids Using Ultra-Performance Liquid Chromatography Tandem Mass Spectrometry. Analytical Chemistry, 2015, 87, 9662-9670.	3.2	166
120	Quantitative Lipoprotein Subclass and Low Molecular Weight Metabolite Analysis in Human Serum and Plasma by <sup>1</sup> H NMR Spectroscopy in a Multilaboratory Trial. Analytical Chemistry, 2018, 90, 11962-11971.	3.2	165
121	High-resolution1H and1H-13C magic angle spinning NMR spectroscopy of rat liver. Magnetic Resonance in Medicine, 2000, 44, 201-207.	1.9	164
122	Improved analysis of multivariate data by variable stability scaling: application to NMR-based metabolic profiling. Analytica Chimica Acta, 2003, 490, 265-276.	2.6	164
123	Prediction and Classification of Drug Toxicity Using Probabilistic Modeling of Temporal Metabolic Data:Â The Consortium on Metabonomic Toxicology Screening Approach. Journal of Proteome Research, 2007, 6, 4407-4422.	1.8	164
124	Integrated application of transcriptomics and metabonomics yields new insight into the toxicity due to paracetamol in the mouse. Journal of Pharmaceutical and Biomedical Analysis, 2004, 35, 93-105.	1.4	163
125	Application of chemometrics to the 1H NMR spectra of apple juices: discrimination between apple varieties. Food Chemistry, 1998, 61, 207-213.	4.2	162
126	Investigations into the biochemical effects of region-specific nephrotoxins. Molecular Pharmacology, 1989, 35, 242-50.	1.0	162

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127	Metabonomics and its role in drug development and disease diagnosis. Expert Review of Molecular Diagnostics, 2004, 4, 189-199.	1.5	161
128	Untargeted UPLC-MS Profiling Pipeline to Expand Tissue Metabolome Coverage: Application to Cardiovascular Disease. Analytical Chemistry, 2015, 87, 4184-4193.	3.2	161
129	Optimization and Evaluation of Metabolite Extraction Protocols for Untargeted Metabolic Profiling of Liver Samples by UPLC-MS. Analytical Chemistry, 2010, 82, 7779-7786.	3.2	160
130	Human metabolic profiles are stably controlled by genetic and environmental variation. Molecular Systems Biology, 2011, 7, 525.	3.2	158
131	Novel Application of Reversed-Phase UPLC-oaTOF-MS for Lipid Analysis in Complex Biological Mixtures:Â A New Tool for Lipidomics. Journal of Proteome Research, 2007, 6, 552-558.	1.8	156
132	Human Metabolic Phenotypes Link Directly to Specific Dietary Preferences in Healthy Individuals. Journal of Proteome Research, 2007, 6, 4469-4477.	1.8	156
133	Metabolic Phenotyping and Systems Biology Approaches to Understanding Metabolic Syndrome and Fatty Liver Disease. Gastroenterology, 2014, 146, 46-62.	0.6	153
134	750 MHz 1H NMR spectroscopy characterisation of the complex metabolic pattern of urine from patients with inborn errors of metabolism: 2-hydroxyglutaric aciduria and maple syrup urine disease. Journal of Pharmaceutical and Biomedical Analysis, 1997, 15, 1647-1659.	1.4	152
135	Panorganismal Gut Microbiomeâ^'Host Metabolic Crosstalk. Journal of Proteome Research, 2009, 8, 2090-2105.	1.8	151
136	Biofluid 1H NMR-based metabonomic techniques in nutrition research — metabolic effects of dietary isoflavones in humans. Journal of Nutritional Biochemistry, 2005, 16, 236-244.	1.9	149
137	Use of Metabonomics to Identify Impaired Fatty Acid Metabolism as the Mechanism of a Drug-Induced Toxicity. Chemical Research in Toxicology, 2004, 17, 165-173.	1.7	148
138	Statistically Integrated Metabonomicâ^'Proteomic Studies on a Human Prostate Cancer Xenograft Model in Mice. Journal of Proteome Research, 2006, 5, 2642-2655.	1.8	146
139	High-Resolution Diffusion and Relaxation Edited One- and Two-Dimensional1H NMR Spectroscopy of Biological Fluids. Analytical Chemistry, 1996, 68, 3370-3376.	3.2	145
140	Spectral editing and pattern recognition methods applied to high-resolution magic-angle spinning 1H nuclear magnetic resonance spectroscopy of liver tissues. Analytical Biochemistry, 2003, 323, 26-32.	1.1	144
141	The identification of novel biomarkers of renal toxicity using automatic data reduction techniques and PCA of proton NMR spectra of urine. Chemometrics and Intelligent Laboratory Systems, 1998, 44, 245-255.	1.8	143
142	NMR and pattern recognition studies on liver extracts and intact livers from rats treated with α-naphthylisothiocyanate. Biochemical Pharmacology, 2002, 64, 67-77.	2.0	143
143	Geometric Trajectory Analysis of Metabolic Responses To Toxicity Can Define Treatment Specific Profiles. Chemical Research in Toxicology, 2004, 17, 579-587.	1.7	143
144	Systems Toxicology:Â Integrated Genomic, Proteomic and Metabonomic Analysis of Methapyrilene Induced Hepatotoxicity in the Rat. Journal of Proteome Research, 2006, 5, 1586-1601.	1.8	143

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145	NMR-based metabonomic toxicity classification: hierarchical cluster analysis and k-nearest-neighbour approaches. Analytica Chimica Acta, 2003, 490, 3-15.	2.6	142
146	Integrative Modeling of Quantitative Plasma Lipoprotein, Metabolic, and Amino Acid Data Reveals a Multiorgan Pathological Signature of SARS-CoV-2 Infection. Journal of Proteome Research, 2020, 19, 4442-4454.	1.8	142
147	Metabonomic Deconvolution Of Embedded Toxicity:  Application To Thioacetamide Hepato- and Nephrotoxicity. Chemical Research in Toxicology, 2005, 18, 639-654.	1.7	141
148	Metabonomic Investigations of Aging and Caloric Restriction in a Life-Long Dog Study. Journal of Proteome Research, 2007, 6, 1846-1854.	1.8	141
149	Metabonomics in Ulcerative Colitis: Diagnostics, Biomarker Identification, And Insight into the Pathophysiology. Journal of Proteome Research, 2010, 9, 954-962.	1.8	141
150	Metabolic Profiling of Genetic Disorders: A Multitissue 1H Nuclear Magnetic Resonance Spectroscopic and Pattern Recognition Study into Dystrophic Tissue. Analytical Biochemistry, 2001, 293, 16-21.	1.1	140
151	The Comparison of Plasma Deproteinization Methods for the Detection of Low-Molecular-Weight Metabolites by 1H Nuclear Magnetic Resonance Spectroscopy. Analytical Biochemistry, 2002, 304, 220-230.	1.1	140
152	Direct quantitative trait locus mapping of mammalian metabolic phenotypes in diabetic and normoglycemic rat models. Nature Genetics, 2007, 39, 666-672.	9.4	140
153	The evolution of partial least squares models and related chemometric approaches in metabonomics and metabolic phenotyping. Journal of Chemometrics, 2010, 24, 636-649.	0.7	140
154	Urinary excretion of acetaminophen and its metabolites as studied by proton NMR spectroscopy Clinical Chemistry, 1984, 30, 1631-1636.	1.5	137
155	Direct coupling of chromatographic separations to NMR spectroscopy. Progress in Nuclear Magnetic Resonance Spectroscopy, 1996, 29, 1-49.	3.9	137
156	Relationship between vaginal microbial dysbiosis, inflammation, and pregnancy outcomes in cervical cerclage. Science Translational Medicine, 2016, 8, 350ra102.	5.8	137
157	Nuclear magnetic resonance spectroscopy and pattern recognition analysis of the biochemical processes associated with the progression of and recovery from nephrotoxic lesions in the rat induced by mercury(II) chloride and 2-bromoethanamine. Molecular Pharmacology, 1992, 42, 922-30.	1.0	137
158	Pharmacometabonomics as an effector for personalized medicine. Pharmacogenomics, 2011, 12, 103-111.	0.6	136
159	Cadmium and mercury nephrotoxicity. Nature, 1983, 304, 633-635.	13.7	135
160	High-performance liquid chromatography coupled to high-field proton nuclear magnetic resonance spectroscopy: application to the urinary metabolites of ibuprofen. Analytical Chemistry, 1993, 65, 327-330.	3.2	135
161	HILIC-UPLC-MS for Exploratory Urinary Metabolic Profiling in Toxicological Studies. Analytical Chemistry, 2011, 83, 382-390.	3.2	135
162	Spatially Resolved Metabolic Phenotyping of Breast Cancer by Desorption Electrospray Ionization Mass Spectrometry. Cancer Research, 2015, 75, 1828-1837.	0.4	134

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163	Optimized Sample Handling Strategy for Metabolic Profiling of Human Feces. Analytical Chemistry, 2016, 88, 4661-4668.	3.2	134
164	Biochemical classification of kidney carcinoma biopsy samples using magic-angle-spinning 1H nuclear magnetic resonance spectroscopy. Journal of Pharmaceutical and Biomedical Analysis, 1998, 17, 125-132.	1.4	133
165	Dietary Modulation of Gut Functional Ecology Studied by Fecal Metabonomics. Journal of Proteome Research, 2010, 9, 5284-5295.	1.8	133
166	A Genome-Wide Metabolic QTL Analysis in Europeans Implicates Two Loci Shaped by Recent Positive Selection. PLoS Genetics, 2011, 7, e1002270.	1.5	132
167	Application of pattern recognition methods to the analysis and classification of toxicological data derived from proton nuclear magnetic resonance spectroscopy of urine. Molecular Pharmacology, 1991, 39, 629-42.	1.0	132
168	Melamine-Induced Renal Toxicity Is Mediated by the Gut Microbiota. Science Translational Medicine, 2013, 5, 172ra22.	5.8	129
169	Spectral profiles of cultured neuronal and glial cells derived from HRMAS1H NMR spectroscopy. NMR in Biomedicine, 2002, 15, 375-384.	1.6	128
170	Environmental Metabonomics: Applying Combination Biomarker Analysis in Earthworms at a Metal Contaminated Site. Ecotoxicology, 2004, 13, 797-806.	1.1	128
171	Metabolic retroconversion of trimethylamine N-oxide and the gut microbiota. Microbiome, 2018, 6, 73.	4.9	127
172	Global metabolic responses of mice to <i>Trypanosoma brucei brucei</i> infection. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 6127-6132.	3.3	126
173	Comparative metabonomics of differential hydrazine toxicity in the rat and mouse. Toxicology and Applied Pharmacology, 2005, 204, 135-151.	1.3	125
174	Analytical technologies for metabonomics and metabolomics, and multi-omic information recovery. TrAC - Trends in Analytical Chemistry, 2008, 27, 194-204.	5.8	125
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