Arthur S Edison

List of Publications by Year
in descending order

128 papers	5,990 citations	81900 39 h-index	82547 72 g-index
140 all docs	140 docs citations	140 times ranked	7914 citing authors

#	Article	IF	Citations
1	Metabolomics and cytokine profiling of mesenchymal stromal cells identify markers predictive of T-cell suppression. Cytotherapy, 2022, 24, 137-148.	0.7	15
2	Predicting Tâ€cell quality during manufacturing through an artificial intelligenceâ€based integrative multiomics analytical platform. Bioengineering and Translational Medicine, 2022, 7, e10282.	7.1	9
3	Application of Counter-Wound Multi-Arm Spirals in HTS Resonator Design. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-4.	1.7	1
4	Growth-stage-related shifts in diatom endometabolome composition set the stage for bacterial heterotrophy. ISME Communications, 2022, 2, .	4.2	6
5	Microbial metabolites in the marine carbon cycle. Nature Microbiology, 2022, 7, 508-523.	13.3	71
6	In Silico Collision Cross Section Calculations to Aid Metabolite Annotation. Journal of the American Society for Mass Spectrometry, 2022, 33, 750-759.	2.8	11
7	Diel investments in metabolite production and consumption in a model microbial system. ISME Journal, 2022, 16, 1306-1317.	9.8	13
8	Uncovering in vivo biochemical patterns from time-series metabolic dynamics. PLoS ONE, 2022, 17, e0268394.	2.5	3
9	Resource partitioning of phytoplankton metabolites that support bacterial heterotrophy. ISME Journal, 2021, 15, 762-773.	9.8	77
10	NMR: Unique Strengths That Enhance Modern Metabolomics Research. Analytical Chemistry, 2021, 93, 478-499.	6.5	56
11	Culture and Assay of Large-Scale Mixed-Stage Caenorhabditis elegans Populations. Journal of Visualized Experiments, 2021, , .	0.3	7
12	Quantum Chemistry Calculations for Metabolomics. Chemical Reviews, 2021, 121, 5633-5670.	47.7	47
13	Long-Term Metabolomics Reference Material. Analytical Chemistry, 2021, 93, 9193-9199.	6.5	11
14	Machine Learning-Enabled Renal Cell Carcinoma Status Prediction Using Multiplatform Urine-Based Metabolomics. Journal of Proteome Research, 2021, 20, 3629-3641.	3.7	22
15	Comparison of High-Resolution Fourier Transform Mass Spectrometry Platforms for Putative Metabolite Annotation. Analytical Chemistry, 2021, 93, 12374-12382.	6.5	7
16	Progress Towards a Higher Sensitivity ¹³C-Optimized 1.5 mm HTS NMR Probe. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-4.	1.7	7
17	¹³C-Optimized HTS NMR RF Coil Design at 21.1 T. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-5.	1.7	3
18	A Plate Based Assay for Determination of the Median Lethal Dose of 1-Hydroxyphenazine in. MicroPublication Biology, 2021, 2021, .	0.1	0

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19	Sodium dichloroacetate stimulates cardiac mitochondrial metabolism and improves cardiac conduction in the ovine fetus during labor. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2021, , .	1.8	2
20	Urine-Based Metabolomics and Machine Learning Reveals Metabolites Associated with Renal Cell Carcinoma Stage. Cancers, 2021, 13, 6253.	3.7	10
21	Integrated Metabolomics and Transcriptomics Suggest the Global Metabolic Response to 2-Aminoacrylate Stress in Salmonella enterica. Metabolites, 2020, 10, 12.	2.9	11
22	Maternal hypercortisolemia alters placental metabolism: a multiomics view. American Journal of Physiology - Endocrinology and Metabolism, 2020, 319, E950-E960.	3.5	10
23	Digestive activity and organic compounds of Nezara viridula watery saliva induce defensive soybean seed responses. Scientific Reports, 2020, 10, 15468.	3.3	16
24	RTExtract: time-series NMR spectra quantification based on 3D surface ridge tracking. Bioinformatics, 2020, 36, 5068-5075.	4.1	7
25	Diabetes Leads to Alterations in Normal Metabolic Transitions of Pregnancy as Revealed by Time-Course Metabolomics. Metabolites, 2020, 10, 350.	2.9	19
26	Proton Nuclear Magnetic Resonance Metabolomics Corroborates Serine Hydroxymethyltransferase as the Primary Target of 2-Aminoacrylate in a ridA Mutant of Salmonella enterica. MSystems, 2020, 5, .	3.8	6
27	Metabolite Structure Assignment Using In Silico NMR Techniques. Analytical Chemistry, 2020, 92, 10412-10419.	6.5	18
28	A redox-active switch in fructosamine-3-kinases expands the regulatory repertoire of the protein kinase superfamily. Science Signaling, 2020, 13, .	3.6	12
29	Deep evolutionary analysis reveals the design principles of fold A glycosyltransferases. ELife, 2020, 9, .	6.0	53
30	TAMI-09. ENERGY METABOLISM AND THERAPEUTIC T CELL EFFICACY IN THE GLIOBLASTOMA MICROENVIRONMENT. Neuro-Oncology, 2020, 22, ii214-ii215.	1.2	0
31	Time and Frequency Domain Response of HTS Resonators for Use as NMR Transmit Coils. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.7	5
32	997: A longitudinal study of metabolomic alterations in urine across pregnancy in diabetic mothers. American Journal of Obstetrics and Gynecology, 2019, 220, S642.	1.3	0
33	Nickel chelation therapy as an approach to combat multi-drug resistant enteric pathogens. Scientific Reports, 2019, 9, 13851.	3.3	13
34	Correlations Between LC-MS/MS-Detected Glycomics and NMR-Detected Metabolomics in Caenorhabditis elegans Development. Frontiers in Molecular Biosciences, 2019, 6, 49.	3.5	8
35	Continuous in vivo Metabolism by NMR. Frontiers in Molecular Biosciences, 2019, 6, 26.	3.5	41
36	Challenges in Identifying the Dark Molecules of Life. Annual Review of Analytical Chemistry, 2019, 12, 177-199.	5.4	55

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37	Ageâ€dependent changes in metabolite profile and lipid saturation in dystrophic mice. NMR in Biomedicine, 2019, 32, e4075.	2.8	12
38	Preoperative Metabolic Signatures of Prostate Cancer Recurrence Following Radical Prostatectomy. Journal of Proteome Research, 2019, 18, 1316-1327.	3.7	30
39	Chronic maternal cortisol excess during late gestation leads to metabolic alterations in the newborn heart. American Journal of Physiology - Endocrinology and Metabolism, 2019, 316, E546-E556.	3.5	21
40	Practical Guidelines for 13C-Based NMR Metabolomics. Methods in Molecular Biology, 2019, 2037, 69-95.	0.9	10
41	Abstract 5270: A potential role of branched chain amino acid metabolism in breast cancer cell invasiveness. , 2019, , .		0
42	Cold adaptation does not alter ATP homeostasis during cold exposure in Drosophila melanogaster. Integrative Zoology, 2018, 13, 471-481.	2.6	7
43	Multiomics approach reveals metabolic changes in the heart at birth. American Journal of Physiology - Endocrinology and Metabolism, 2018, 315, E1212-E1223.	3.5	18
44	Global Metabolomics of the Placenta Reveals Distinct Metabolic Profiles between Maternal and Fetal Placental Tissues Following Delivery in Non-Labored Women. Metabolites, 2018, 8, 10.	2.9	51
45	Dereplication of plant phenolics using a massâ€spectrometry database independent method. Phytochemical Analysis, 2018, 29, 601-612.	2.4	11
46	PD38-07 MULTIPLATFORM METABOLOMICS REVEALS PREDICTIVE PROSTATE CANCER RECURRENCE PHENOTYPES FOLLOWING RADICAL PROSTATECTOMY. Journal of Urology, 2018, 199, .	0.4	0
47	604: Intrapartum vs postpartum metabolomics in serum and urine of diabetic mothers. American Journal of Obstetrics and Gynecology, 2017, 216, S355-S356.	1.3	0
48	605: Metabolomic alterations in pregestational diabetic placentas at term. American Journal of Obstetrics and Gynecology, 2017, 216, S356.	1.3	2
49	Quality assurance and quality control processes: summary of a metabolomics community questionnaire. Metabolomics, 2017, 13, 1.	3.0	53
50	Inductively-Coupled Frequency Tuning and Impedance Matching in HTS-Based NMR Probes. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.7	7
51	Cancer progression by reprogrammed BCAA metabolism in myeloid leukaemia. Nature, 2017, 545, 500-504.	27.8	287
52	Considerations when choosing a genetic model organism for metabolomics studies. Current Opinion in Chemical Biology, 2017, 36, 7-14.	6.1	21
53	Alternatives to Nuclear Overhauser Enhancement Spectroscopy Presat and Carrâ€“Purcellâ€“Meiboomâ€“Gill Presat for NMR-Based Metabolomics. Analytical Chemistry, 2017, 89, 8582-8588.	6.5	46
54	Metabolomic Evaluation of the Consequences of Plasma Cystathionine Elevation in Adults with Stable Angina Pectoris. Journal of Nutrition, 2017, 147, 1658-1668.	2.9	11

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55	Advanced spectroscopic detectors for identification and quantification: Nuclear magnetic resonance. , 2017, , 479-514.		2
56	The future of NMR-based metabolomics. Current Opinion in Biotechnology, 2017, 43, 34-40.	6.6	651
57	13C Metabolomics: NMR and IROA for Unknown Identification. Current Metabolomics, 2016, 4, 116-120.	0.5	15
58	The Time Is Right to Focus on Model Organism Metabolomes. Metabolites, 2016, 6, 8.	2.9	63
59	Adaptation to Low Temperature Exposure Increases Metabolic Rates Independently of Growth Rates. Integrative and Comparative Biology, 2016, 56, 62-72.	2.0	39
60	NMR-based metabolomics reveals urinary metabolome modifications in female Sprague‚Äì“Dawley rats by cranberry procyanidins. Journal of Nutritional Biochemistry, 2016, 34, 136-145.	4.2	22
61	Development of a ¹H-¹³C Dual-Optimized NMR Probe Based on Double-Tuned High Temperature Superconducting Resonators. IEEE Transactions on Applied Superconductivity, 2016, , 1-1.	1.7	6
62	Effects of Dielectric Substrates and Ground Planes on Resonance Frequency of Archimedean Spirals. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-4.	1.7	4
63	Metabolomics Workbench: An international repository for metabolomics data and metadata, metabolite standards, protocols, tutorials and training, and analysis tools. Nucleic Acids Research, 2016, 44, D463-D470.	14.5	568
64	Facing and Overcoming Sensitivity Challenges in Biomolecular NMR Spectroscopy. Angewandte Chemie - International Edition, 2015, 54, 9162-9185.	13.8	258
65	An overview of methods using 13C for improved compound identification in metabolomics and natural products. Frontiers in Plant Science, 2015, 6, 611.	3.6	57
66	Transferring Fungi to a Deuterium-Enriched Medium Results in Assorted, Conditional Changes in Secondary Metabolite Production. Journal of Natural Products, 2015, 78, 1415-1421.	3.0	12
67	Metabolomics and Natural-Products Strategies to Study Chemical Ecology in Nematodes. Integrative and Comparative Biology, 2015, 55, 478-485.	2.0	13
68	An Empirical Expression to Predict the Resonant Frequencies of Archimedean Spirals. IEEE Transactions on Microwave Theory and Techniques, 2015, 63, 2107-2114.	4.6	12
69	¹³C NMR Metabolomics: INADEQUATE Network Analysis. Analytical Chemistry, 2015, 87, 5698-5706.	6.5	49
70	A directed-overflow and damage-control N-glycosidase in riboflavin biosynthesis. Biochemical Journal, 2015, 466, 137-145.	3.7	38
71	MALDI Mass Spectrometric Imaging of the Nematode Caenorhabditis elegans. Current Metabolomics, 2015, 3, 130-137.	0.5	5
72	Cold adaptation shapes the robustness of metabolic networks inDrosophila melanogaster. Evolution; International Journal of Organic Evolution, 2014, 68, 3505-3523.	2.3	65

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73	Synthesis, Biophysical, and Pharmacological Evaluation of the Melanocortin Agonist AST3-88: Modifications of Peptide Backbone at Trp 7 Position Lead to a Potent, Selective, and Stable Ligand of the Melanocortin 4 Receptor (MC4R). ACS Chemical Neuroscience, 2014, 5, 1020-1031.	3.5	12
74	The New Data Quality Task Group (DQTG): ensuring high quality data today and in the future. Metabolomics, 2014, 10, 539-540.	3.0	13
75	¹³C NMR Metabolomics: Applications at Natural Abundance. Analytical Chemistry, 2014, 86, 9242-9250.	6.5	75
76	Chemical Detoxification of Small Molecules by Caenorhabditis elegans. ACS Chemical Biology, 2013, 8, 309-313.	3.4	40
77	Mo1232 Employing High-Resolution Magic Angle Spinning (HR-MAS) MRS As Non-Invasive Diagnostic Approach in Non-Alcoholic Steatohepatitis (NASH). Gastroenterology, 2013, 144, S-612-S-613.	1.3	0
78	Development of a 13C-optimized 1.5-mm high temperature superconducting NMR probe. Journal of Magnetic Resonance, 2013, 235, 58-65.	2.1	70
79	Structureâ€“Activity Relationships of Peptides Incorporating a Bioactive Reverse-Turn Heterocycle at the Melanocortin Receptors: Identification of a 5800-fold Mouse Melanocortin-3 Receptor (mMC3R) Selective Antagonist/Partial Agonist versus the Mouse Melanocortin-4 Receptor (mMC4R). Journal of Medicinal Chemistry, 2013, 56, 2747-2763.	6.4	9
80	Isotopic Ratio Outlier Analysis Global Metabolomics of Caenorhabditis elegans. Analytical Chemistry, 2013, 85, 11858-11865.	6.5	51
81	Sex-specific mating pheromones in the nematode Panagrellus redivivus. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 20949-20954.	7.1	66
82	A Modular Library of Small Molecule Signals Regulates Social Behaviors in Caenorhabditis elegans. PLoS Biology, 2012, 10, e1001237.	5.6	208
83	NMR in Metabolomics and Natural Products Research: Two Sides of the Same Coin. Accounts of Chemical Research, 2012, 45, 288-297.	15.6	151
84	Interspecific Nematode Signals Regulate Dispersal Behavior. PLoS ONE, 2012, 7, e38735.	2.5	79
85	Hierarchical Alignment and Full Resolution Pattern Recognition of 2D NMR Spectra: Application to Nematode Chemical Ecology. Analytical Chemistry, 2011, 83, 1649-1657.	6.5	69
86	Incorporation of a Bioactive Reverse-Turn Heterocycle into a Peptide Template Using Solid-Phase Synthesis To Probe Melanocortin Receptor Selectivity and Ligand Conformations by 2D ¹H NMR. Journal of Medicinal Chemistry, 2011, 54, 1379-1390.	6.4	14
87	Ascaroside Expression in Caenorhabditis elegans Is Strongly Dependent on Diet and Developmental Stage. PLoS ONE, 2011, 6, e17804.	2.5	87
88	So, You Want to Do Research in the Rainforest?. Signaling and Communication in Plants, 2011, , 97-111.	0.7	1
89	A role for tetrahydrofolates in the metabolism of iron-sulfur clusters in all domains of life. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 10412-10417.	7.1	81
90	NMR â€“ Small Molecules and Analysis of Complex Mixtures. , 2010, , 169-196.		12

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91	Caenorhabditis elegans pheromones regulate multiple complex behaviors. Current Opinion in Neurobiology, 2009, 19, 378-388.	4.2	60
92	Alkyldimethylpyrazines in the Defensive Spray of Phyllium westwoodii: A First for Order Phasmatodea. Journal of Chemical Ecology, 2009, 35, 861-870.	1.8	26
93	Bacterial Attraction and Quorum Sensing Inhibition in Caenorhabditis elegans Exudates. Journal of Chemical Ecology, 2009, 35, 878-892.	1.8	33
94	Relative Configuration of Natural Products Using NMR Chemical Shifts. Journal of Natural Products, 2009, 72, 709-713.	3.0	38
95	Structure Elucidation at the Nanomole Scale. 1. Trisoxazole Macrolides and Thiazole-Containing Cyclic Peptides from the Nudibranch Hexabranchus sanguineus. Journal of Natural Products, 2009, 72, 732-738.	3.0	131
96	Developmental and Geographical Variation in the Chemical Defense of the Walkingstick Insect Anisomorpha buprestoides. Journal of Chemical Ecology, 2008, 34, 584-590.	1.8	31
97	Kinetics of Folding and Binding of an Intrinsically Disordered Protein: The Inhibitor of Yeast Aspartic Proteinase YPrA. Journal of the American Chemical Society, 2008, 130, 11477-11485.	13.7	55
98	A blend of small molecules regulates both mating and development in Caenorhabditis elegans. Nature, 2008, 454, 1115-1118.	27.8	335
99	Strategy for Automated Analysis of Dynamic Metabolic Mixtures by NMR. Application to an Insect Venom. Analytical Chemistry, 2007, 79, 7748-7752.	6.5	60
100	Parectadial, a Monoterpenoid from the Defensive Spray ofParectatosomamocquerysi. Journal of Natural Products, 2007, 70, 1335-1338.	3.0	26
101	Incorporation of Isotopically Enriched Amino Acids. Current Protocols in Protein Science, 2007, 47, Unit 26.3.	2.8	2
102	Identification of single and double sites of phosphorylation by ECD FT-ICR/MS in peptides related to the phosphorylation site domain of the myristoylated alanine-rich c kinase protein. Journal of the American Society for Mass Spectrometry, 2007, 18, 2137-2145.	2.8	12
103	The magic of solenoids. Nature, 2007, 447, 646-647.	27.8	5
104	Single-Insect NMR: A New Tool To Probe Chemical Biodiversity. ACS Chemical Biology, 2006, 1, 511-514.	3.4	52
105	Characterizing the Residue Level Folding of the Intrinsically Unstructured IA3. Biochemistry, 2006, 45, 13585-13596.	2.5	14
106	NMR Analysis of Caenorhabditis elegans FLP-18 Neuropeptides:â€‰ Implications for NPR-1 Activation. Biochemistry, 2006, 45, 7586-7597.	2.5	16
107	Design, construction, and validation of a 1-mm triple-resonance high-temperature-superconducting probe for NMR. Journal of Magnetic Resonance, 2006, 179, 290-293.	2.1	119
108	Comparison of the performance of round and rectangular wire in small solenoids for high-field NMR. Magnetic Resonance in Chemistry, 2006, 44, 255-262.	1.9	19

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109	MARCKS Is a Natively Unfolded Protein with an Inaccessible Actin-binding Site. Journal of Biological Chemistry, 2005, 280, 9946-9956.	3.4	30
110	Structureâ^'Activity Relationships of the Unique and Potent Agouti-Related Protein (AGRP)â^'Melanocortin Chimeric Tyr-c[Î²-Asp-His-DPhe-Arg-Trp-Asn-Ala-Phe-Dpr]-Tyr-NH2Peptide Template. Journal of Medicinal Chemistry, 2005, 48, 3060-3075.	6.4	24
111	The solution structure of the pH-induced monomer of dynein light-chain LC8 from Drosophila. Protein Science, 2004, 13, 727-734.	7.6	34
112	Structural Characterization and Pharmacology of a Potent (Cys101â^'Cys119, Cys110â^'Cys117) Bicyclic Agouti-Related Protein (AGRP) Melanocortin Receptor Antagonist. Journal of Medicinal Chemistry, 2004, 47, 5662-5673.	6.4	14
113	IA3, an Aspartic Proteinase Inhibitor from Saccharomyces cerevisiae, Is Intrinsically Unstructured in Solution. Biochemistry, 2004, 43, 4071-4081.	2.5	38
114	Design of small volume HX and triple-resonance probes for improved limits of detection in protein NMR experiments. Journal of Magnetic Resonance, 2003, 164, 128-135.	2.1	33
115	Structure and Dynamics of the Lantibiotic Mutacin 1140. Biochemistry, 2003, 42, 10372-10384.	2.5	48
116	IA3, A Yeast Proteinase A Inhibitor, Is Intrinsically Unstructured in Solution. Scientific World Journal, The, 2002, 2, 99-101.	2.1	2
117	Novel Agouti-Related-Protein-Based Melanocortin-1 Receptor Antagonist. Journal of Medicinal Chemistry, 2001, 44, 4114-4124.	6.4	31
118	Structural Studies of a Neuropeptide Precursor Protein with an RGD Proteolytic Site. Biochemistry, 2001, 40, 8790-8799.	2.5	4
119	Linus Pauling and the planar peptide bond. , 2001, 8, 201-202.		41
120	Actin Filament Cross-linking by MARCKS. Journal of Biological Chemistry, 2001, 276, 22351-22358.	3.4	63
121	Computational analysis of two similar neuropeptides yields distinct conformational ensembles. Proteins: Structure, Function and Bioinformatics, 2000, 40, 367-377.	2.6	4
122	Covalent structure of mutacin 1140 and a novel method for the rapid identification of lantibiotics. FEBS Journal, 2000, 267, 6810-6816.	0.2	39
123	A Statistical View of FMRFamide Neuropeptide Diversity. Molecular Neurobiology, 2000, 21, 035-056.	4.0	43
124	Conformational Ensembles: The Role of Neuropeptide Structures in Receptor Binding. Journal of Neuroscience, 1999, 19, 6318-6326.	3.6	29
125	Phosphorylation-dependent Conformational Changes Induce a Switch in the Actin-binding Function of MARCKS. Journal of Biological Chemistry, 1999, 274, 36472-36478.	3.4	40
126	Formation of thebSubunit Dimer Is Necessary for Interaction with F1-ATPaseâ€. Biochemistry, 1998, 37, 923-932.	2.5	54

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127	Calculations of one-, two- and three-bond nuclear spin-spin couplings in a model peptide and correlations with experimental data. Journal of Biomolecular NMR, 1994, 4, 519-542.	2.8	43
128	Inductive effects on the structure of proline residues. International Journal of Peptide and Protein Research, 1994, 44, 262-269.	0.1	115