

# Edgar A Arriaga

## List of Publications by Year in descending order

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82  
papers

3,197  
citations

218677

26  
h-index

161849

54  
g-index

88  
all docs

88  
docs citations

88  
times ranked

4152  
citing authors

#	ARTICLE	IF	CITATIONS
1	Fisetin is a senotherapeutic that extends health and lifespan. <i>EBioMedicine</i> , 2018, 36, 18-28.	6.1	554
2	Targeting senescent cells alleviates obesity-induced metabolic dysfunction. <i>Aging Cell</i> , 2019, 18, e12950.	6.7	395
3	Downregulation of Adipose Glutathione S-Transferase A4 Leads to Increased Protein Carbonylation, Oxidative Stress, and Mitochondrial Dysfunction. <i>Diabetes</i> , 2010, 59, 1132-1142.	0.6	167
4	Protein carbonylation and metabolic control systems. <i>Trends in Endocrinology and Metabolism</i> , 2012, 23, 399-406.	7.1	113
5	Identification of carbonylated proteins from enriched rat skeletal muscle mitochondria using affinity chromatography-stable isotope labeling and tandem mass spectrometry. <i>Proteomics</i> , 2007, 7, 1150-1163.	2.2	112
6	Bioanalysis of Eukaryotic Organelles. <i>Chemical Reviews</i> , 2013, 113, 2733-2811.	47.7	110
7	Determination of Properties of Individual Liposomes by Capillary Electrophoresis with Postcolumn Laser-Induced Fluorescence Detection. <i>Analytical Chemistry</i> , 2001, 73, 1855-1861.	6.5	97
8	Determination of Electrophoretic Mobility Distributions through the Analysis of Individual Mitochondrial Events by Capillary Electrophoresis with Laser-Induced Fluorescence Detection. <i>Analytical Chemistry</i> , 2002, 74, 171-176.	6.5	75
9	Detection of doxorubicin and metabolites in cell extracts and in single cells by capillary electrophoresis with laser-induced fluorescence detection. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2002, 769, 97-106.	2.3	73
10	Quantitative Proteomic Profiling of Muscle Type-Dependent and Age-Dependent Protein Carbonylation in Rat Skeletal Muscle Mitochondria. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2008, 63, 1137-1152.	3.6	73
11	Recent advances in the analysis of biological particles by capillary electrophoresis. <i>Electrophoresis</i> , 2008, 29, 2578-2586.	2.4	58
12	Determination of the cardiolipin content of individual mitochondria by capillary electrophoresis with laser-induced fluorescence detection. <i>Electrophoresis</i> , 2002, 23, 1571.	2.4	56
13	Protein Carbonylation and Adipocyte Mitochondrial Function*. <i>Journal of Biological Chemistry</i> , 2012, 287, 32967-32980.	3.4	56
14	Fast Determination of Mitochondria Electrophoretic Mobility Using Micro Free-Flow Electrophoresis. <i>Analytical Chemistry</i> , 2009, 81, 9267-9273.	6.5	55
15	Analysis of mitochondria isolated from single cells. <i>Analytical and Bioanalytical Chemistry</i> , 2006, 387, 107-118.	3.7	52
16	Review on recent advances in the analysis of isolated organelles. <i>Analytica Chimica Acta</i> , 2012, 753, 8-18.	5.4	49
17	Individual Mitochondrion Characterization: A Comparison of Classical Assays to Capillary Electrophoresis with Laser-Induced Fluorescence Detection. <i>Analytical Biochemistry</i> , 2001, 294, 141-147.	2.4	42
18	Selective Determination of the Doxorubicin Content of Individual Acidic Organelles in Impure Subcellular Fractions. <i>Analytical Chemistry</i> , 2005, 77, 2281-2287.	6.5	37

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19	Qualitative determination of superoxide release at both sides of the mitochondrial inner membrane by capillary electrophoretic analysis of the oxidation products of triphenylphosphonium hydroethidine. <i>Free Radical Biology and Medicine</i> , 2009, 46, 905-913.	2.9	37
20	Insulator-based dielectrophoresis of mitochondria. <i>Biomicrofluidics</i> , 2014, 8, 021801.	2.4	36
21	Metabolic Labeling with an Alkyne-modified Isoprenoid Analog Facilitates Imaging and Quantification of the Prenylome in Cells. <i>ACS Chemical Biology</i> , 2016, 11, 2820-2828.	3.4	36
22	Individual Acidic Organelle pH Measurements by Capillary Electrophoresis. <i>Analytical Chemistry</i> , 2006, 78, 820-826.	6.5	35
23	Within the cell: analytical techniques for subcellular analysis. <i>Analytical and Bioanalytical Chemistry</i> , 2005, 382, 906-917.	3.7	29
24	Simultaneously Monitoring the Superoxide in the Mitochondrial Matrix and Extramitochondrial Space by Micellar Electrokinetic Chromatography with Laser-Induced Fluorescence. <i>Analytical Chemistry</i> , 2007, 79, 4588-4594.	6.5	29
25	Direct Sampling from Muscle Cross Sections for Electrophoretic Analysis of Individual Mitochondria. <i>Analytical Chemistry</i> , 2004, 76, 315-321.	6.5	28
26	Automated analysis of individual particles using a commercial capillary electrophoresis system. <i>Journal of Chromatography A</i> , 2005, 1064, 107-114.	3.7	27
27	Superoxide released into the mitochondrial matrix. <i>Free Radical Biology and Medicine</i> , 2006, 41, 950-959.	2.9	26
28	Simultaneous Measurement of Individual Mitochondrial Membrane Potential and Electrophoretic Mobility by Capillary Electrophoresis. <i>Analytical Chemistry</i> , 2014, 86, 4217-4226.	6.5	25
29	Deterministic Ratchet for Sub-micrometer (Bio)particle Separation. <i>Analytical Chemistry</i> , 2018, 90, 4370-4379.	6.5	25
30	Doxorubicin Accumulation in Individually Electrophoresed Organelles. <i>Journal of the American Chemical Society</i> , 2004, 126, 9168-9169.	13.7	24
31	Fast electrophoretic analysis of individual mitochondria using microchip capillary electrophoresis with laser induced fluorescence detection. <i>Lab on A Chip</i> , 2006, 6, 1007.	6.0	24
32	Capillary Electrophoresis Monitors Enhancement in Subcellular Reactive Oxygen Species Production upon Treatment with Doxorubicin. <i>Chemical Research in Toxicology</i> , 2006, 19, 1151-1159.	3.3	24
33	Quantitation of DNA Copy Number in Individual Mitochondrial Particles by Capillary Electrophoresis. <i>Analytical Chemistry</i> , 2007, 79, 7691-7699.	6.5	24
34	Simultaneous Laser-Induced Fluorescence and Scattering Detection of Individual Particles Separated by Capillary Electrophoresis. <i>Analytical Chemistry</i> , 2007, 79, 5474-5478.	6.5	24
35	CE analysis of the acidic organelles of a single cell. <i>Electrophoresis</i> , 2007, 28, 2406-2415.	2.4	24
36	Absolute quantitation of a heteroplasmic mitochondrial DNA deletion using a multiplex three-primer real-time PCR assay. <i>Analytical Biochemistry</i> , 2007, 362, 193-200.	2.4	24

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37	Capillary Isoelectric Focusing of Individual Mitochondria. <i>Analytical Chemistry</i> , 2011, 83, 612-618.	6.5	24
38	Single cell analysis. <i>Analytical and Bioanalytical Chemistry</i> , 2006, 387, 1-2.	3.7	23
39	Separation of doxorubicin and doxorubicinol by cyclodextrin-modified micellar electrokinetic capillary chromatography. <i>Electrophoresis</i> , 2006, 27, 3263-3270.	2.4	23
40	Identification and Characterization of Mitochondrial Subtypes in <i>Caenorhabditis elegans</i> via Analysis of Individual Mitochondria by Flow Cytometry. <i>Analytical Chemistry</i> , 2016, 88, 6309-6316.	6.5	23
41	Detection of heteroplasmy in individual mitochondrial particles. <i>Analytical and Bioanalytical Chemistry</i> , 2010, 397, 3397-3407.	3.7	21
42	Quantification of carbonylated proteins in rat skeletal muscle mitochondria using capillary sieving electrophoresis with laser-induced fluorescence detection. <i>Electrophoresis</i> , 2008, 29, 475-482.	2.4	20
43	Subcellular metabolite profiles of the parent CCRF-CEM and the derived CEM/C2 cell lines after treatment with doxorubicin. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2004, 808, 295-302.	2.3	19
44	On-column labeling for capillary electrophoretic analysis of individual mitochondria directly sampled from tissue cross sections. <i>Analytical and Bioanalytical Chemistry</i> , 2006, 384, 169-174.	3.7	18
45	CE-LIF analysis of mitochondria using uncoated and dynamically coated capillaries. <i>Electrophoresis</i> , 2006, 27, 4523-4531.	2.4	18
46	Analysis of Superoxide Production in Single Skeletal Muscle Fibers. <i>Analytical Chemistry</i> , 2010, 82, 4570-4576.	6.5	18
47	Metallointercalators-DNA Tetrahedron Supramolecular Self-Assemblies with Increased Serum Stability. <i>ACS Nano</i> , 2022, 16, 2928-2941.	14.6	18
48	Analysis of subcellular sized particles. <i>Journal of Chromatography A</i> , 2006, 1137, 249-255.	3.7	17
49	Individual Electrophoretic Mobilities of Liposomes and Acidic Organelles Displaying pH Gradients Across Their Membranes. <i>Langmuir</i> , 2007, 23, 5584-5590.	3.5	17
50	Determining biological noise via single cell analysis. <i>Analytical and Bioanalytical Chemistry</i> , 2009, 393, 73-80.	3.7	16
51	High-Throughput Characterization of Region-Specific Mitochondrial Function and Morphology. <i>Scientific Reports</i> , 2017, 7, 6749.	3.3	16
52	Evaluation of individual particle capillary electrophoresis experiments via quantile analysis. <i>Journal of Chromatography A</i> , 2007, 1157, 446-453.	3.7	14
53	Tandem Laser-Induced Fluorescence and Mass Spectrometry Detection for High-Performance Liquid Chromatography Analysis of the in Vitro Metabolism of Doxorubicin. <i>Analytical Chemistry</i> , 2010, 82, 8113-8120.	6.5	14
54	Capillary Electrophoretic Analysis Reveals Subcellular Binding between Individual Mitochondria and Cytoskeleton. <i>Analytical Chemistry</i> , 2011, 83, 1822-1829.	6.5	14

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55	<i>Journal of Chemical Education</i> Call for Papers: Special Issue on Diversity, Equity, Inclusion, and Respect in Chemistry Education Research and Practice. <i>Journal of Chemical Education</i> , 2020, 97, 3915-3918.	2.3	14
56	Monitoring incorporation, transformation and subcellular distribution of N-l-leucyl-doxorubicin in uterine sarcoma cells using capillary electrophoretic techniques. <i>Cancer Letters</i> , 2008, 262, 123-132.	7.2	13
57	Asymmetric superoxide release inside and outside the mitochondria in skeletal muscle under conditions of aging and disuse. <i>Journal of Applied Physiology</i> , 2010, 109, 1133-1139.	2.5	13
58	Analysis of the bioactivity of magnetically immunisolated peroxisomes. <i>Analytical and Bioanalytical Chemistry</i> , 2012, 402, 41-49.	3.7	13
59	Nanohole Array-Directed Trapping of Mammalian Mitochondria Enabling Single Organelle Analysis. <i>Analytical Chemistry</i> , 2015, 87, 11973-11977.	6.5	13
60	Evaluation of peak overlap in migration-time distributions determined by organelle capillary electrophoresis: Type-II error analogy based on statistical-overlap theory. <i>Journal of Chromatography A</i> , 2009, 1216, 6335-6342.	3.7	12
61	Quantifying Heterogeneity of Individual Organelles in Mixed Populations via Mass Cytometry. <i>Analytical Chemistry</i> , 2018, 90, 13315-13321.	6.5	10
62	Capillary Electrophoresis Reveals Changes in Individual Mitochondrial Particles Associated With Skeletal Muscle Fiber Type and Age. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2006, 61, 1211-1218.	3.6	9
63	Analysis of individual mitochondria via fluorescent immunolabeling with Anti-TOM22 antibodies. <i>Analytical and Bioanalytical Chemistry</i> , 2014, 406, 1683-1691.	3.7	9
64	Introducing the <i>Journal of Chemical Education</i> 's Special Issue on Diversity, Equity, Inclusion, and Respect in Chemistry Education Research and Practice. <i>Journal of Chemical Education</i> , 2022, 99, 1-4.	2.3	9
65	Chemical Cytometry Quantitates Superoxide Levels in the Mitochondrial Matrix of Single Myoblasts. <i>Analytical Chemistry</i> , 2010, 82, 6745-6750.	6.5	8
66	Individual Organelle pH Determinations of Magnetically Enriched Endocytic Organelles via Laser-Induced Fluorescence Detection. <i>Analytical Chemistry</i> , 2011, 83, 7331-7339.	6.5	8
67	Describing Autophagy via Analysis of Individual Organelles by Capillary Electrophoresis with Laser Induced Fluorescence Detection. <i>Analytical Chemistry</i> , 2013, 85, 11391-11400.	6.5	8
68	Capillary electrophoretic analysis of hydroxyl radicals produced by respiring mitochondria. <i>Analytical and Bioanalytical Chemistry</i> , 2013, 405, 6053-6060.	3.7	7
69	Guidelines for Advancing Diversity, Equity, Inclusion, and Respect in Programs Offering Bachelor's Degrees in Chemistry. <i>Journal of Chemical Education</i> , 2022, 99, 393-401.	2.3	7
70	Estimating relative carbonyl levels in muscle microstructures by fluorescence imaging. <i>Analytical and Bioanalytical Chemistry</i> , 2008, 391, 2591-2598.	3.7	5
71	Development of a Click-Chemistry Reagent Compatible with Mass Cytometry. <i>Scientific Reports</i> , 2018, 8, 6657.	3.3	5
72	Nonspecific Binding Correction for Single-Cell Mass Cytometric Analysis of Autophagy and Myoblast Differentiation. <i>Analytical Chemistry</i> , 2021, 93, 1401-1408.	6.5	5

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73	Sizing lipid droplets from adult and geriatric mouse liver tissue via nanoparticle tracking analysis. Analytical and Bioanalytical Chemistry, 2018, 410, 3629-3638.	3.7	4
74	Continuous organelle separation in an insulator-based dielectrophoretic device. Electrophoresis, 2022, 43, 1283-1296.	2.4	4
75	Semi-automated image analysis: detecting carbonylation in subcellular regions of skeletal muscle. Analytical and Bioanalytical Chemistry, 2011, 400, 213-222.	3.7	3
76	Making excellence inclusive. C&EN Global Enterprise, 2019, 97, 31-31.	0.0	3
77	Capillary Electrophoresis with Laser-Induced Fluorescent Detection of Immunolabeled Individual Autophagy Organelles Isolated from Liver Tissue. Analytical Chemistry, 2016, 88, 11691-11698.	6.5	2
78	Matters of Ethics. ACS Symposium Series, 2020, , 127-144.	0.5	2
79	Single Cell Heterogeneity. , 0, , 223-234.		1
80	Checkpoints for preliminary identification of small molecules found enriched in autophagosomes and activated mast cell secretions analyzed by comparative UPLC/MSe. Analytical Methods, 2017, 9, 46-54.	2.7	1
81	Analytical tools for cell research. Analytical and Bioanalytical Chemistry, 2010, 397, 3161-3162.	3.7	0
82	Monitoring subcellular biotransformation of N-leucyldoxorubicin by micellar electrokinetic capillary chromatography coupled to laser-induced fluorescence detection. Analytical and Bioanalytical Chemistry, 2014, 406, 2389-2397.	3.7	0