

Craig A Aspinwall

List of Publications by Year in descending order

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61
papers

1,745
citations

279798

23
h-index

276875

41
g-index

61
all docs

61
docs citations

61
times ranked

1931
citing authors

#	ARTICLE	IF	CITATIONS
1	Insulin-stimulated Insulin Secretion in Single Pancreatic Beta Cells. <i>Journal of Biological Chemistry</i> , 1999, 274, 6360-6365.	3.4	194
2	Roles of Insulin Receptor Substrate-1, Phosphatidylinositol 3-Kinase, and Release of Intracellular Ca ²⁺ Stores in Insulin-stimulated Insulin Secretion in β^2 -Cells. <i>Journal of Biological Chemistry</i> , 2000, 275, 22331-22338.	3.4	149
3	Extracellular pH Is Required for Rapid Release of Insulin from Zn ²⁺ Insulin Precipitates in β^2 -Cell Secretory Vesicles during Exocytosis. <i>Journal of the American Chemical Society</i> , 1996, 118, 1795-1796.	13.7	116
4	Removal of Ca ²⁺ Channel β_3 Subunit Enhances Ca ²⁺ Oscillation Frequency and Insulin Exocytosis. <i>Cell</i> , 2004, 119, 273-284.	28.9	105
5	Detection of Secretion from Single Pancreatic β^2 -Cells Using Extracellular Fluorogenic Reactions and Confocal Fluorescence Microscopy. <i>Analytical Chemistry</i> , 2000, 72, 711-717.	6.5	100
6	Effects of Intravesicular H ⁺ and Extracellular H ⁺ and Zn ²⁺ on Insulin Secretion in Pancreatic Beta Cells. <i>Journal of Biological Chemistry</i> , 1997, 272, 31308-31314.	3.4	82
7	Oxygen Microsensor and Its Application to Single Cells and Mouse Pancreatic Islets. <i>Analytical Chemistry</i> , 1999, 71, 3642-3649.	6.5	79
8	Ruthenium catalyst for amperometric determination of insulin at physiological pH. <i>Journal of Electroanalytical Chemistry</i> , 1997, 425, 191-199.	3.8	71
9	Preparation and Characterization of Poly(lipid)-Coated, Fluorophore-Doped Silica Nanoparticles for Biolabeling and Cellular Imaging. <i>Langmuir</i> , 2007, 23, 12624-12633.	3.5	55
10	On-line competitive immunoassay based on capillary electrophoresis applied to monitoring insulin secretion from single islets of Langerhans. <i>Electrophoresis</i> , 1998, 19, 403-408.	2.4	53
11	Nanometre-sized molecular oxygen sensors prepared from polymer stabilized phospholipid vesicles. <i>Analyst</i> , The, 2006, 131, 236-243.	3.5	47
12	Comparison of Amperometric Methods for Detection of Exocytosis from Single Pancreatic β^2 -Cells of Different Species. <i>Analytical Chemistry</i> , 1999, 71, 5551-5556.	6.5	44
13	Detection of Multiple Patterns of Oscillatory Oxygen Consumption in Single Mouse Islets of Langerhans. <i>Biochemical and Biophysical Research Communications</i> , 1999, 259, 331-335.	2.1	43
14	Preparation and Characterization of Cross-Linked Phospholipid Bilayer Capillary Coatings for Protein Separations. <i>Analytical Chemistry</i> , 2007, 79, 3135-3141.	6.5	39
15	Decreased Aperture Surface Energy Enhances Electrical, Mechanical, and Temporal Stability of Suspended Lipid Membranes. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 11918-11926.	8.0	36
16	Dual microcolumn immunoassay applied to determination of insulin secretion from single islets of Langerhans and insulin in serum. <i>Biomedical Applications</i> , 1997, 689, 295-303.	1.7	29
17	Fast Hadamard Transform Capillary Electrophoresis for On-Line, Time-Resolved Chemical Monitoring. <i>Analytical Chemistry</i> , 2006, 78, 1628-1635.	6.5	29
18	Fractional Polymerization of a Suspended Planar Bilayer Creates a Fluid, Highly Stable Membrane for Ion Channel Recordings. <i>Journal of the American Chemical Society</i> , 2010, 132, 7086-7093.	13.7	26

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19	In Situ Fabrication of Three-Dimensional Chemical Patterns in Fused Silica Separation Capillaries with Polymerized Phospholipids. <i>Journal of the American Chemical Society</i> , 2005, 127, 16756-16757.	13.7	25
20	Capillary electrophoresis with a UV light-emitting diode source for chemical monitoring of native and derivatized fluorescent compounds. <i>Electrophoresis</i> , 2006, 27, 4052-4059.	2.4	25
21	Enhanced Long-Term Stability for Single Ion Channel Recordings Using Suspended Poly(lipid) Bilayers. <i>Journal of the American Chemical Society</i> , 2009, 131, 6662-6663.	13.7	25
22	Polymerized Planar Suspended Lipid Bilayers for Single Ion Channel Recordings: Comparison of Several Dienoyl Lipids. <i>Langmuir</i> , 2011, 27, 1882-1890.	3.5	25
23	Composite nanoparticles: the best of two worlds. <i>Analytical and Bioanalytical Chemistry</i> , 2012, 402, 83-89.	3.7	24
24	Photolithographic Fabrication of Microapertures with Well-Defined, Three-Dimensional Geometries for Suspended Lipid Membrane Studies. <i>Analytical Chemistry</i> , 2013, 85, 9078-9086.	6.5	22
25	Stabilized porous liposomes with encapsulated Gd-labeled dextran as a highly efficient MRI contrast agent. <i>Chemical Communications</i> , 2014, 50, 2502.	4.1	22
26	Polymer-Stabilized Phospholipid Vesicles with a Controllable, pH-Dependent Disassembly Mechanism. <i>Langmuir</i> , 2009, 25, 1908-1910.	3.5	21
27	Glutathione sulfinamide serves as a selective, endogenous biomarker for nitroxyl after exposure to therapeutic levels of donors. <i>Free Radical Biology and Medicine</i> , 2014, 76, 299-307.	2.9	21
28	Methacrylate Polymer Scaffolding Enhances the Stability of Suspended Lipid Bilayers for Ion Channel Recordings and Biosensor Development. <i>ACS Biomaterials Science and Engineering</i> , 2015, 1, 955-963.	5.2	19
29	Stabilized Porous Phospholipid Nanoshells. <i>Langmuir</i> , 2006, 22, 9507-9511.	3.5	17
30	Practical considerations for preparing polymerized phospholipid bilayer capillary coatings for protein separations. <i>Analytica Chimica Acta</i> , 2013, 772, 93-98.	5.4	17
31	Fate of fluorescent core-shell silica nanoparticles during simulated secondary wastewater treatment. <i>Water Research</i> , 2015, 77, 170-178.	11.3	17
32	High-sensitivity detection of biological amines using fast Hadamard transform CE coupled with photolytic optical gating. <i>Electrophoresis</i> , 2007, 28, 3115-3121.	2.4	14
33	High-Speed Capillary Zone Electrophoresis with Online Photolytic Optical Injection. <i>Analytical Chemistry</i> , 2006, 78, 3674-3680.	6.5	13
34	Evidence for Ca ²⁺ -regulated ATP release in gastrointestinal stromal tumors. <i>Experimental Cell Research</i> , 2013, 319, 1229-1238.	2.6	13
35	Hybrid phospholipid bilayer coatings for separations of cationic proteins in capillary zone electrophoresis. <i>Electrophoresis</i> , 2014, 35, 1099-1105.	2.4	11
36	Secretion from Islets and Single Islet Cells following Cryopreservation. <i>Cell Transplantation</i> , 1999, 8, 691-698.	2.5	10

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37	Fabrication and Characterization of Spatially Defined, Multiple Component, Chemically Functionalized Domains in Enclosed Silica Channels Using Cross-Linked Phospholipid Membranes. <i>Langmuir</i> , 2007, 23, 11326-11333.	3.5	9
38	Screening populations of individual cells for secretory heterogeneity. <i>Analytical and Bioanalytical Chemistry</i> , 2005, 381, 660-666.	3.7	8
39	Design, characterization, and utilization of a fast fluorescence derivatization reaction utilizing phthalaldehyde coupled with fluorescent thiols. <i>Electrophoresis</i> , 2007, 28, 1100-1106.	2.4	8
40	Determination of Pore Sizes and Relative Porosity in Porous Nanoshell Architectures Using Dextran Retention with Single Monomer Resolution and Proton Permeation. <i>Analytical Chemistry</i> , 2012, 84, 9754-9761.	6.5	8
41	Surface Modified Nano-Electrospray Needles Improve Sensitivity for Native Mass Spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2022, 33, 1031-1037.	2.8	8
42	Stabilized phospholipid membranes in chromatography: toward membrane protein-functionalized stationary phases. <i>Analytical and Bioanalytical Chemistry</i> , 2014, 406, 2223-2229.	3.7	7
43	Highly stabilized, polymer-lipid membranes prepared on silica microparticles as stationary phases for capillary chromatography. <i>Journal of Chromatography A</i> , 2015, 1385, 28-34.	3.7	7
44	Enhanced Temporal Resolution with Ion Channel-Functionalized Sensors Using a Conductance-Based Measurement Protocol. <i>Analytical Chemistry</i> , 2017, 89, 1315-1322.	6.5	7
45	Surface Modification of Glass/PDMS Microfluidic Valve Assemblies Enhances Valve Electrical Resistance. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 34463-34470.	8.0	6
46	Analysis of protein kinase A activity in insulin-secreting cells using a cell-penetrating protein substrate and capillary electrophoresis. <i>Analytical and Bioanalytical Chemistry</i> , 2010, 397, 3359-3367.	3.7	5
47	Aptamer-functionalized porous phospholipid nanoshells for direct measurement of Hg ²⁺ in urine. <i>Analytical and Bioanalytical Chemistry</i> , 2015, 407, 953-960.	3.7	5
48	Nanodomain Formation in Planar Supported Lipid Bilayers Composed of Fluid and Polymerized Dienoyl Lipids. <i>Langmuir</i> , 2019, 35, 12483-12491.	3.5	5
49	Nanomechanical Properties of Artificial Lipid Bilayers Composed of Fluid and Polymerizable Lipids. <i>Langmuir</i> , 2022, 38, 100-111.	3.5	5
50	Polystyrene-Core, Silica-Shell Scintillant Nanoparticles for Low-Energy Radionuclide Quantification in Aqueous Media. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 4953-4960.	8.0	4
51	Hybrid Nanoparticle Platform for Nanoscale Scintillation Proximity Assay. <i>ACS Applied Nano Materials</i> , 2019, 2, 1259-1266.	5.0	4
52	Direct interaction of the ATP-sensitive K ⁺ channel by the tyrosine kinase inhibitors imatinib, sunitinib and nilotinib. <i>Biochemical and Biophysical Research Communications</i> , 2021, 557, 14-19.	2.1	4
53	Expression, purification, and electrophysiological characterization of a recombinant, fluorescent Kir6.2 in mammalian cells. <i>Protein Expression and Purification</i> , 2018, 146, 61-68.	1.3	3
54	Online photolytic optical gating of caged fluorophores in capillary zone electrophoresis utilizing an ultraviolet light-emitting diode. <i>Electrophoresis</i> , 2012, 33, 2903-2910.	2.4	2

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55	Emerging trends in precision fabrication of microapertures to support suspended lipid membranes for sensors, sequencing, and beyond. <i>Analytical and Bioanalytical Chemistry</i> , 2015, 407, 647-652.	3.7	1
56	Inward and outward currents of native and cloned K(ATP) channels (Kir6.2/SUR1) share single-channel kinetic properties. <i>Biochemistry and Biophysics Reports</i> , 2022, 30, 101260.	1.3	1
57	Highly Stable Poly(Lipid) Bilayers for Long-Term Ion Channel Recordings. <i>Biophysical Journal</i> , 2010, 98, 285a-286a.	0.5	0
58	Rapid formation of polymer frits in fused silica capillaries using spatially defined thermal free-radical initiated polymerization. <i>Separation Science Plus</i> , 2018, 1, 753-758.	0.6	0
59	Enhanced Fluorescent Protein Activity in Polymer Scaffold-Stabilized Phospholipid Nanoshells Using Neutral Redox Initiator Polymerization Conditions. <i>ACS Omega</i> , 2018, 3, 15890-15899.	3.5	0
60	Quantification of intracellular HNO delivery with capillary zone electrophoresis. <i>Nitric Oxide - Biology and Chemistry</i> , 2021, 118, 49-58.	2.7	0
61	Expression of truncated Kir6.2 promotes insertion of functionally inverted ATP-sensitive K ⁺ channels. <i>Scientific Reports</i> , 2021, 11, 21539.	3.3	0