Adam T Woolley

List of Publications by Year
in descending order

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147	11,548	38742	28297
papers	citations	50	105
		h-index	g-index

149	149	149	9584
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Covalently functionalized nanotubes as nanometre- sized probes in chemistry and biology. Nature, 1998, 394, 52-55.	27.8	1,439
2	Functional Integration of PCR Amplification and Capillary Electrophoresis in a Microfabricated DNA Analysis Device. Analytical Chemistry, 1996, 68, 4081-4086.	6.5	741
3	Advances in Microfluidic Materials, Functions, Integration, and Applications. Chemical Reviews, 2013, 113, 2550-2583.	47.7	731
4	Ultra-High-Speed DNA Sequencing Using Capillary Electrophoresis Chips. Analytical Chemistry, 1995, 67, 3676-3680.	6.5	563
5	Capillary Electrophoresis Chips with Integrated Electrochemical Detection. Analytical Chemistry, 1998, 70, 684-688.	6.5	534
6	DNA-Templated Construction of Copper Nanowires. Nano Letters, 2003, 3, 359-363.	9.1	451
7	High-Speed DNA Genotyping Using Microfabricated Capillary Array Electrophoresis Chips. Analytical Chemistry, 1997, 69, 2181-2186.	6.5	333
8	Custom 3D printer and resin for 18 Î¼m Ã— 20 Î¼m microfluidic flow channels. Lab on A Chip, 2017, 17, 2899-2909.	6.0	306
9	Covalently-Functionalized Single-Walled Carbon Nanotube Probe Tips for Chemical Force Microscopy. Journal of the American Chemical Society, 1998, 120, 8557-8558.	13.7	249
10	Optical approach to resin formulation for 3D printed microfluidics. RSC Advances, 2015, 5, 106621-106632.	3.6	234
11	3D printed microfluidic devices with integrated valves. Biomicrofluidics, 2015, 9, 016501.	2.4	221
12	3D Printed Microfluidics. Annual Review of Analytical Chemistry, 2020, 13, 45-65.	5.4	212
13	High density 3D printed microfluidic valves, pumps, and multiplexers. Lab on A Chip, 2016, 16, 2450-2458.	6.0	202
14	Metallization of Branched DNA Origami for Nanoelectronic Circuit Fabrication. ACS Nano, 2011, 5, 2240-2247.	14.6	171
15	Single-walled carbon nanotube probes for high-resolution nanostructure imaging. Applied Physics Letters, 1998, 73, 3465-3467.	3.3	169
16	Direct haplotyping of kilobase-size DNA using carbon nanotube probes. Nature Biotechnology, 2000, 18, 760-763.	17.5	164
17	Microfluidics: Innovations in Materials and Their Fabrication and Functionalization. Analytical Chemistry, 2020, 92, 150-168.	6.5	158
18	DNA-Templated Nanotube Localization. Journal of the American Chemical Society, 2003, 125, 8710-8711.	13.7	143

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19	DNA-templated nanofabrication. Chemical Society Reviews, 2009, 38, 329-337.	38.1	136
20	Recent advances in microfluidic sample preparation and separation techniques for molecular biomarker analysis: A critical review. Analytica Chimica Acta, 2017, 986, 1-11.	5.4	129
21	Thermal Bonding of Polymeric Capillary Electrophoresis Microdevices in Water. Analytical Chemistry, 2003, 75, 1941-1945.	6.5	127
22	Microfabrication Technology for the Production of Capillary Array Electrophoresis Chips. Biomedical Microdevices, 1998, 1, 7-26.	2.8	121
23	Surface-Modified Poly(methyl methacrylate) Capillary Electrophoresis Microchips for Protein and Peptide Analysis. Analytical Chemistry, 2004, 76, 6948-6955.	6.5	120
24	Polymerase Chain Reaction Based Scaffold Preparation for the Production of Thin, Branched DNA Origami Nanostructures of Arbitrary Sizes. Nano Letters, 2009, 9, 4302-4305.	9.1	116
25	Directional Orientation of Carbon Nanotubes on Surfaces Using a Gas Flow Cell. Nano Letters, 2004, 4, 1481-1484.	9.1	102
26	Moving from millifluidic to truly microfluidic sub-100-Î¼m cross-section 3D printed devices. Analytical and Bioanalytical Chemistry, 2017, 409, 4311-4319.	3.7	101
27	DNA-Templated Three-Branched Nanostructures for Nanoelectronic Devices. Journal of the American Chemical Society, 2005, 127, 2828-2829.	13.7	100
28	Functionalization of carbon nanotube AFM probes using tip-activated gases. Chemical Physics Letters, 1999, 306, 219-225.	2.6	90
29	Phase-Changing Sacrificial Materials for Solvent Bonding of High-Performance Polymeric Capillary Electrophoresis Microchips. Analytical Chemistry, 2005, 77, 3536-3541.	6.5	90
30	DNA Origami Metallized Site Specifically to Form Electrically Conductive Nanowires. Journal of Physical Chemistry B, 2012, 116, 10551-10560.	2.6	90
31	Deposition and Characterization of Extended Single-Stranded DNA Molecules on Surfaces. Nano Letters, 2001, 1, 345-348.	9.1	87
32	DNA-Templated Nanowire Fabrication. Biomedical Microdevices, 2004, 6, 105-111.	2.8	83
33	Electric Field Gradient Focusing of Proteins Based on Shaped Ionically Conductive Acrylic Polymer. Analytical Chemistry, 2004, 76, 5641-5648.	6.5	82
34	Structural biology with carbon nanotube AFM probes. Chemistry and Biology, 2000, 7, R193-R204.	6.0	76
35	A New Method of Preparing Monolayers on Silicon and Patterning Silicon Surfaces by Scribing in the Presence of Reactive Species. Langmuir, 2001, 17, 5889-5900.	3.5	73
36	Electric field gradient focusing. Journal of Separation Science, 2005, 28, 1985-1993.	2.5	72

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37	Electrically Conductive Gold- and Copper-Metallized DNA Origami Nanostructures. Langmuir, 2013, 29, 3482-3490.	3.5	72
38	Affinity Monolith-Integrated Poly(methyl methacrylate) Microchips for On-Line Protein Extraction and Capillary Electrophoresis. Analytical Chemistry, 2008, 80, 5126-5130.	6.5	71
39	Spatially and optically tailored 3D printing for highly miniaturized and integrated microfluidics. Nature Communications, 2021, 12, 5509.	12.8	70
40	Applications of microfluidics and microchip electrophoresis for potential clinical biomarker analysis. Analytical and Bioanalytical Chemistry, 2015, 407, 6911-6922.	3.7	66
41	Ionic surface masking for low background in single- and double-stranded DNA-templated silver and copper nanorods. Journal of Materials Chemistry, 2004, 14, 611.	6.7	63
42	DNA-Templated Nickel Nanostructures and Protein Assemblies. Langmuir, 2006, 22, 10140-10144.	3.5	62
43	Single-Monomer Formulation of Polymerized Polyethylene Glycol Diacrylate as a Nonadsorptive Material for Microfluidics. Analytical Chemistry, 2011, 83, 6418-6425.	6.5	60
44	3D Printed Microfluidic Devices for Microchip Electrophoresis of Preterm Birth Biomarkers. Analytical Chemistry, 2019, 91, 7418-7425.	6.5	60
45	Phase-Changing Sacrificial Materials for Interfacing Microfluidics with Ion-Permeable Membranes To Create On-Chip Preconcentrators and Electric Field Gradient Focusing Microchips. Analytical Chemistry, 2006, 78, 2565-2570.	6.5	59
46	Rapid prototyping of poly(methyl methacrylate) microfluidic systems using solvent imprinting and bonding. Journal of Chromatography A, 2007, 1162, 162-166.	3.7	59
47	3D printed high density, reversible, chip-to-chip microfluidic interconnects. Lab on A Chip, 2018, 18, 639-647.	6.0	59
48	Integrated Microfluidic Device for Serum Biomarker Quantitation Using Either Standard Addition or a Calibration Curve. Analytical Chemistry, 2009, 81, 8230-8235.	6.5	55
49	Affinity monolith preconcentrators for polymer microchip capillary electrophoresis. Electrophoresis, 2008, 29, 3429-3435.	2.4	54
50	Microdevices integrating affinity columns and capillary electrophoresis for multibiomarker analysis in human serum. Lab on A Chip, 2010, 10, 2527.	6.0	54
51	Rapid metallization of lambda DNA and DNA origami using a Pd seeding method. Journal of Materials Chemistry, 2011, 21, 12126.	6.7	49
52	3D printed microfluidic devices with immunoaffinity monoliths for extraction of preterm birth biomarkers. Analytical and Bioanalytical Chemistry, 2019, 411, 5405-5413.	3.7	48
53	Fabrication of calcium fluoride capillary electrophoresis microdevices for on-chip infrared detection. Journal of Chromatography A, 2004, 1027, 231-235.	3.7	47
54	Electrically actuated, pressure-driven liquid chromatography separations in microfabricated devices. Lab on A Chip, 2007, 7, 1524.	6.0	47

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55	Selective trapping and concentration of nanoparticles and viruses in dual-height nanofluidic channels. Lab on A Chip, 2010, 10, 173-178.	6.0	47
56	Microfluidic chips with reversed-phase monoliths for solid phase extraction and on-chip labeling. Journal of Chromatography A, 2012, 1261, 129-135.	3.7	47
57	Proteomic and phototoxic characterization of melanolipofuscin: correlation to disease and model for its origin. Molecular Vision, 2007, 13, 318-29.	1.1	46
58	Electrically actuated, pressure-driven microfluidic pumps. Lab on A Chip, 2003, 3, 217.	6.0	44
59	Site-Specific Metallization of Multiple Metals on a Single DNA Origami Template. Langmuir, 2014, 30, 1134-1141.	3.5	44
60	Automated microfluidic devices integrating solid-phase extraction, fluorescent labeling, and microchip electrophoresis for preterm birth biomarker analysis. Analytical and Bioanalytical Chemistry, 2018, 410, 933-941.	3.7	43
61	Sacrificial layer microfluidic device fabrication methods. Electrophoresis, 2006, 27, 4888-4895.	2.4	42
62	Chemical Alignment of DNA Origami to Block Copolymer Patterned Arrays of 5 nm Gold Nanoparticles. Nano Letters, 2011, 11, 1981-1987.	9.1	41
63	Examining the proteins of functional retinal lipofuscin using proteomic analysis as a guide for understanding its origin. Molecular Vision, 2005, 11, 1122-34.	1.1	41
64	Anisotropic Electroless Deposition on DNA Origami Templates To Form Small Diameter Conductive Nanowires. Langmuir, 2017, 33, 726-735.	3.5	39
65	3D Printed Microfluidic Features Using Dose Control in X, Y, and Z Dimensions. Micromachines, 2018, 9, 326.	2.9	38
66	Fabrication of DNA-Templated Te and Bi₂Te₃ Nanowires by Galvanic Displacement. Langmuir, 2013, 29, 11176-11184.	3.5	37
67	Microfluidic valves made from polymerized polyethylene glycol diacrylate. Sensors and Actuators B: Chemical, 2014, 191, 438-444.	7.8	36
68	Advances in monoliths and related porous materials for microfluidics. Biomicrofluidics, 2016, 10, 032901.	2.4	34
69	Directional Growth of DNA-Functionalized Nanorods to Enable Continuous, Site-Specific Metallization of DNA Origami Templates. Langmuir, 2017, 33, 10143-10152.	3.5	32
70	DNA Shadow Nanolithography. Small, 2007, 3, 1534-1538.	10.0	31
71	Electrokinetically operated microfluidic devices for integrated immunoaffinity monolith extraction and electrophoretic separation of preterm birth biomarkers. Analyst, The, 2018, 143, 224-231.	3.5	31
72	Four-Point Probe Electrical Measurements on Templated Gold Nanowires Formed on Single DNA Origami Tiles. Langmuir, 2018, 34, 15069-15077.	3.5	31

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73	3D printed selectable dilution mixer pumps. Biomicrofluidics, 2019, 13, 014106.	2.4	31
74	Title is missing!. Nature Biotechnology, 2000, 18, 760-763.	17.5	30
75	3D Printed Microfluidic Devices for Solid-Phase Extraction and On-Chip Fluorescent Labeling of Preterm Birth Risk Biomarkers. Analytical Chemistry, 2020, 92, 12322-12329.	6.5	30
76	Multilayer Polymer Microchip Capillary Array Electrophoresis Devices with Integrated On-Chip Labeling for High-Throughput Protein Analysis. Analytical Chemistry, 2011, 83, 3541-3547.	6.5	29
77	Advances in multiplex electrical and optical detection of biomarkers using microfluidic devices. Analytical and Bioanalytical Chemistry, 2022, 414, 167-180.	3.7	29
78	Ionâ€permeable membrane for onâ€chip preconcentration and separation of cancer marker proteins. Electrophoresis, 2011, 32, 1133-1140.	2.4	28
79	Pressure-actuated microfluidic devices for electrophoretic separation of pre-term birth biomarkers. Analytical and Bioanalytical Chemistry, 2016, 408, 599-607.	3.7	28
80	Transient deflection response in microcantilever array integrated with polydimethylsiloxane (PDMS) microfluidics. Lab on A Chip, 2011, 11, 2088.	6.0	27
81	Development of an integrated microfluidic solid-phase extraction and electrophoresis device. Analyst, The, 2016, 141, 1660-1668.	3.5	27
82	Microfluidic Systems for Integrated, High-Throughput DNA Analysis. Analytical Chemistry, 2005, 77, 96 A-102 A.	6.5	26
83	Nanografting of Silanes on Silicon Dioxide with Applications to DNA Localization and Copper Electroless Deposition. Chemistry of Materials, 2007, 19, 5052-5054.	6.7	26
84	DNA origami mediated electrically connected metalâ€"semiconductor junctions. Nano Research, 2020, 13, 1419-1426.	10.4	26
85	DNAâ€templated lithography and nanofabrication for the fabrication of nanoscale electronic circuitry. Critical Reviews in Analytical Chemistry, 2014, 44, 354-370.	3.5	25
86	Phase-Changing Sacrificial Layer Fabrication of Multilayer Polymer Microfluidic Devices. Analytical Chemistry, 2008, 80, 333-339.	6.5	24
87	On chip preconcentration and fluorescence labeling of model proteins by use of monolithic columns: device fabrication, optimization, and automation. Analytical and Bioanalytical Chemistry, 2015, 407, 737-747.	3.7	24
88	DNA origami: The bridge from bottom to top. MRS Bulletin, 2017, 42, 943-950.	3.5	24
89	Integrated Multiprocess Microfluidic Systems for Automating Analysis. Journal of the Association for Laboratory Automation, 2010, 15, 198-209.	2.8	22
90	Chemomechanical Production of Submicron Edge Width, Functionalized, â^¼20 Î¼m Features on Silicon. Langmuir, 2003, 19, 985-988.	3.5	20

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91	Poly(ethylene glycol)-Functionalized Devices for Electric Field Gradient Focusing. Analytical Chemistry, 2008, 80, 451-460.	6.5	20
92	Polymer microchip CE of proteins either offâ€•or onâ€chip labeled with chameleon dye for simplified analysis. Electrophoresis, 2009, 30, 4230-4236.	2.4	19
93	Integrated electrokinetically driven microfluidic devices with pHâ€mediated solidâ€phase extraction coupled to microchip electrophoresis for preterm birth biomarkers. Electrophoresis, 2017, 38, 1743-1754.	2.4	19
94	Sequence-specific sepsis-related DNA capture and fluorescent labeling in monoliths prepared by single-step photopolymerization in microfluidic devices. Journal of Chromatography A, 2018, 1562, 12-18.	3.7	19
95	Field gradient electrophoresis. Electrophoresis, 2005, 26, 405-414.	2.4	18
96	Inâ€channel atomâ€transfer radical polymerization of thermoset polyester microfluidic devices for bioanalytical applications. Electrophoresis, 2007, 28, 2904-2911.	2.4	18
97	Influence of transport properties in electric field gradient focusing. Journal of Chromatography A, 2007, 1160, 311-319.	3.7	18
98	Fluorescent measurement of affinity binding between thrombin and its aptamers using on-chip affinity monoliths. Journal of Chromatography A, 2013, 1291, 92-96.	3.7	18
99	3D-printed microchip electrophoresis device containing spiral electrodes for integrated capacitively coupled contactless conductivity detection. Analytical and Bioanalytical Chemistry, 2022, 414, 545-550.	3.7	17
100	Electroosmotic flow in vapor deposited silicon dioxide and nitride microchannels. Biomicrofluidics, 2007, 1, 34101.	2.4	16
101	Performance optimization in electric field gradient focusing. Journal of Chromatography A, 2009, 1216, 159-164.	3.7	16
102	Rapid and convenient method for preparing masters for microcontact printing with 1â€“12â€‚Î¼m features. Review of Scientific Instruments, 2004, 75, 3065-3067.	1.3	14
103	â€œFlow Valveâ€•Microfluidic Devices for Simple, Detectorless, and Label-Free Analyte Quantitation. Analytical Chemistry, 2012, 84, 7057-7063.	6.5	14
104	On-chip fluorescent labeling using reversed-phase monoliths and microchip electrophoretic separations of selected preterm birth biomarkers. Analytical Methods, 2016, 8, 7739-7746.	2.7	14
105	Bottom-Up Fabrication of DNA-Templated Electronic Nanomaterials and Their Characterization. Nanomaterials, 2021, 11, 1655.	4.1	14
106	3D printed microfluidic device for automated, pressure-driven, valve-injected microchip electrophoresis of preterm birth biomarkers. Mikrochimica Acta, 2022, 189, 204.	5.0	14
107	High-yield DNA-templated assembly of surfactant-wrapped carbon nanotubes. Nanotechnology, 2005, 16, 2238-2241.	2.6	13
108	Programed elution and peak profiles in electric field gradient focusing. Electrophoresis, 2008, 29, 1058-1066.	2.4	13

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109	Bilinear electric field gradient focusing. Journal of Chromatography A, 2009, 1216, 6532-6538.	3.7	13
110	Contactless conductivity detection of small ions in a surface microâ€machined CE chip. Electrophoresis, 2010, 31, 2596-2601.	2.4	13
111	Microchip immunoaffinity electrophoresis of antibodyâ€“thymidine kinase 1 complex. Electrophoresis, 2015, 36, 813-817.	2.4	13
112	Microchip electrophoresis separation of a panel of preterm birth biomarkers. Electrophoresis, 2018, 39, 2300-2307.	2.4	13
113	Immunoaffinity monoliths for multiplexed extraction of preterm birth biomarkers from human blood serum in 3D printed microfluidic devices. Analyst, The, 2022, 147, 734-743.	3.5	13
114	Surfactant addition and alternating current electrophoretic oscillation during size fractionation of nanoparticles in channels with two or three different height segments. Journal of Chromatography A, 2011, 1218, 9102-9110.	3.7	11
115	A general microchip surface modification approach using a spin-coated polymer resist film doped with hydroxypropyl cellulose. Lab on A Chip, 2009, 9, 949-953.	6.0	10
116	Microfluidic devices for label-free and non-instrumented quantitation of unamplified nucleic acids by flow distance measurement. Analytical Methods, 2014, 6, 8173-8179.	2.7	10
117	Analysis of thrombinâ€antithrombin complex formation using microchip electrophoresis and mass spectrometry. Electrophoresis, 2019, 40, 2853-2859.	2.4	10
118	High-Resolution 3D Printing Fabrication of a Microfluidic Platform for Blood Plasma Separation. Polymers, 2022, 14, 2537.	4.5	10
119	Sequence-specific DNA solid-phase extraction in an on-chip monolith: Towards detection of antibiotic resistance genes. Journal of Chromatography A, 2017, 1523, 309-315.	3.7	9
120	Impact of Polymer-Constrained Annealing on the Properties of DNA Origami-Templated Gold Nanowires. Langmuir, 2020, 36, 6661-6667.	3.5	9
121	Single-sided inkjet functionalization of silicon photonic microcantilevers. Sensors and Actuators B: Chemical, 2012, 161, 80-87.	7.8	8
122	Thin-film microfabricated nanofluidic arrays for size-selective protein fractionation. Lab on A Chip, 2013, 13, 4591.	6.0	7
123	Weak Adsorption-Induced Surface Stress for Streptavidin Binding to Biotin Tethered to Silicon Microcantilever Arrays. IEEE Sensors Journal, 2013, 13, 959-968.	4.7	6
124	Seeding, Plating and Electrical Characterization of Gold Nanowires Formed on Self-Assembled DNA Nanotubes. Molecules, 2020, 25, 4817.	3.8	6
125	Annealing of Polymer-Encased Nanorods on DNA Origami Forming Metalâ€“Semiconductor Nanowires: Implications for Nanoelectronics. ACS Applied Nano Materials, 2021, 4, 9094-9103.	5.0	6
126	Phase-changing sacrificial layers in microfluidic devices: adding another dimension to separations. Analytical and Bioanalytical Chemistry, 2009, 393, 431-435.	3.7	5

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127	Title is missing!. Biomedical Microdevices, 2003, 5, 69-74.	2.8	4
128	Optimization of monolithic columns for microfluidic devices. , 2011, , .		3
129	Rapid and simple pressure-sensitive adhesive microdevice fabrication for sequence-specific capture and fluorescence detection of sepsis-related bacterial plasmid gene sequences. Analytical and Bioanalytical Chemistry, 2021, 413, 1017-1025.	3.7	3
130	Biofunctionalization of Carbon Nanotubes for Atomic Force Microscopy Imaging. , 2004, 283, 305-320.		2
131	ABC Spotlight on emerging microRNA analysis methods. Analytical and Bioanalytical Chemistry, 2015, 407, 6579-6581.	3.7	2
132	Multilabel hybridization probes for sequence-specific detection of sepsis-related drug resistance genes in plasmids. Talanta Open, 2021, 3, 100034.	3.7	2
133	3D printing for lab-on-a-chip devices with 20 Î¼m channels. , 2019, , .		2
134	Particle trapping in electrostatically actuated nanofluidic barriers. , 2015, , .		1
135	The only constant is change. Analytical and Bioanalytical Chemistry, 2017, 409, 6053-6053.	3.7	1
136	Analytical and Bioanalytical Chemistry, and the International Year of the Periodic Table. Analytical and Bioanalytical Chemistry, 2019, 411, 6519-6520.	3.7	1
137	Introducing three new ABC Editors. Analytical and Bioanalytical Chemistry, 2019, 411, 2471-2473.	3.7	1
138	Advancements in sensor technology with innovative and significant research publications: how to write that perfect paper?. Analytical and Bioanalytical Chemistry, 2022, 414, 21-24.	3.7	1
139	Micromachined Substrates for Molecular Follow-Up in DNA-Templated Nanofabrication. AIP Conference Proceedings, 2004, , .	0.4	0
140	Electronic Properties of DNA-Templated Single-Walled Carbon Nanotubes. AIP Conference Proceedings, 2006, , .	0.4	0
141	DNA-templated nanowires as sacrificial materials for creating nanocapillaries. , 2008, , .		0
142	Microcantilever array sensors with integrated PDMS microfluidics. , 2011, , .		0
143	Effective response to peer review. Analytical and Bioanalytical Chemistry, 2018, 410, 2863-2864.	3.7	0
144	Be unafraid â€¦ to try something new or challenging. Analytical and Bioanalytical Chemistry, 2018, 410, 6973-6974.	3.7	0

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145	Device Fabrication and Fluorescent Labeling of Preterm Birth Biomarkers for Microchip Electrophoresis. Methods in Molecular Biology, 2019, 1972, 175-184.	0.9	0
146	20/20 foresight for 2020?. Analytical and Bioanalytical Chemistry, 2020, 412, 4209-4209.	3.7	0
147	Integrating Sample Processing and Detection with Microchip Capillary Electrophoresis of DNA. , 2007, , 68-77.		0