Michael G Weller

List of Publications by Year
in descending order

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108 papers	3,728 citations	136950 32 h-index	144013 57 g-index
120 all docs	120 docs citations	120 times ranked	4459 citing authors

#	Article	IF	Citations
1	Automated Microarray System for the Simultaneous Detection of Antibiotics in Milk. Analytical Chemistry, 2004, 76, 646-654.	6.5	242
2	Fiber-Optic Evanescent Wave Biosensor for the Detection of Oligonucleotides. Analytical Chemistry, 1996, 68, 2905-2912.	6.5	211
3	Air Pollution and Climate Change Effects on Allergies in the Anthropocene: Abundance, Interaction, and Modification of Allergens and Adjuvants. Environmental Science & Technology, 2017, 51, 4119-4141.	10.0	193
4	Protein Nitration by Polluted Air. Environmental Science & Technology, 2005, 39, 1673-1678.	10.0	183
5	Phenanthrene-Fused Boronâ^'Dipyrromethenes as Bright Long-Wavelength Fluorophores. Organic Letters, 2008, 10, 1581-1584.	4.6	145
6	A Unifying Review of Bioassay-Guided Fractionation, Effect-Directed Analysis and Related Techniques. Sensors, 2012, 12, 9181-9209.	3.8	132
7	Microarrays for the Screening of Allergen-Specific IgE in Human Serum. Analytical Chemistry, 2003, 75, 556-562.	6.5	121
8	Nitration Enhances the Allergenic Potential of Proteins. International Archives of Allergy and Immunology, 2006, 141, 265-275.	2.1	114
9	Immunochromatographic techniques - a critical review. Fresenius' Journal of Analytical Chemistry, 2000, 366, 635-645.	1.5	111
10	Quality Issues of Research Antibodies. Analytical Chemistry Insights, 2016, 11, ACI.S31614.	2.7	97
11	Immunoassays as high-throughput tools: Monitoring spatial and temporal variations of carbamazepine, caffeine and cetirizine in surface and wastewaters. Chemosphere, 2012, 89, 1278-1286.	8.2	96
12	Highly sensitive immunoassay based on a monoclonal antibody specific for [4-arginine]microcystins. Analytica Chimica Acta, 2001, 441, 1-13.	5.4	93
13	Generic microcystin immunoassay based on monoclonal antibodies against Adda. Analyst, The, 2001, 126, 2002-2007.	3.5	90
14	Monitoring carbamazepine in surface and wastewaters by an immunoassay based on a monoclonal antibody. Analytical and Bioanalytical Chemistry, 2009, 395, 1809-1820.	3.7	84
15	Highly parallel affinity sensor for the detection of environmental contaminants in water1Parts of this work were presented at the Fifth World Congress on Biosensors, Berlin, Germany, 1998.1. Analytica Chimica Acta, 1999, 393, 29-41.	5.4	75
16	Characterization of a monoclonal TNT-antibody by measurement of the cross-reactivities of nitroaromatic compounds. Fresenius' Journal of Analytical Chemistry, 1999, 364, 113-120.	1.5	66
17	Sandwich Immunoassays for the Determination of Peanut and Hazelnut Traces in Foods. Journal of Agricultural and Food Chemistry, 2005, 53, 3321-3327.	5.2	62
18	Release of free amino acids upon oxidation of peptides and proteins by hydroxyl radicals. Analytical and Bioanalytical Chemistry, 2017, 409, 2411-2420.	3.7	62

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19	Immunoassays and Biosensors for the Detection of Cyanobacterial Toxins in Water. Sensors, 2013, 13, 15085-15112.	3.8	58
20	Enzyme immunoassays for the investigation of protein nitration by air pollutants. Analyst, The, 2003, 128, 824-831.	3.5	56
21	Increased sensitivity of an enzyme immunoassay (ELISA) for the determination of triazine herbicides by variation of tracer incubation time. Mikrochimica Acta, 1992, 108, 29-40.	5.0	52
22	Development of a highly sensitive enzyme-immunoassay for the determination of triazine herbicides. Fresenius' Journal of Analytical Chemistry, 1997, 358, 614-622.	1.5	51
23	Multidimensional Biochemical Detection of Microcystins in Liquid Chromatography. Analytical Chemistry, 2001, 73, 5509-5517.	6.5	43
24	A highly sensitive caffeine immunoassay based on a monoclonal antibody. Analytical and Bioanalytical Chemistry, 2010, 396, 2617-2628.	3.7	43
25	Selective, Sensitive, and Rapid Analysis with Lateralâ€Flow Assays Based on Antibodyâ€Gated Dyeâ€Delivery Systems: The Example of Triacetone Triperoxide. Chemistry - A European Journal, 2013, 19, 4117-4122.	3.3	43
26	Dip-and-read test strips for the determination of trinitrotoluene (TNT) in drinking water. Analytica Chimica Acta, 1999, 396, 309-316.	5.4	40
27	Ten Basic Rules of Antibody Validation. Analytical Chemistry Insights, 2018, 13, 117739011875746.	2.7	39
28	Digging into the Sequential Space of Thiolactone Precision Polymers: A Combinatorial Strategy to Identify Functional Domains. Angewandte Chemie - International Edition, 2019, 58, 1960-1964.	13.8	39
29	Liquid- and Gas-Phase Nitration of Bovine Serum Albumin Studied by LCâ^'MS and LCâ^'MS/MS Using Monolithic Columns. Journal of Proteome Research, 2003, 2, 534-542.	3.7	37
30	Atmospheric protein chemistry influenced by anthropogenic air pollutants: nitration and oligomerization upon exposure to ozone and nitrogen dioxide. Faraday Discussions, 2017, 200, 413-427.	3.2	37
31	MeCATâ€"new iodoacetamide reagents for metal labeling of proteins and peptides. Analytical and Bioanalytical Chemistry, 2011, 401, 1203-1209.	3.7	35
32	Quantification of N-hydroxysuccinimide and N-hydroxysulfosuccinimide by hydrophilic interaction chromatography (HILIC). Analytical Methods, 2015, 7, 6443-6448.	2.7	34
33	Reductive Transformation of Bound Trinitrophenyl Residues and Free TNT during a Bioremediation Process Analyzed by Immunoassay. Environmental Science & Technology, 1999, 33, 3421-3426.	10.0	32
34	Development of a Direct Competitive Microcystin Immunoassay of Broad Specificity.. Analytical Sciences, 2001, 17, 1445-1448.	1.6	32
35	Effect-directed analysis by high-performance liquid chromatography with gas-segmented enzyme inhibition. Journal of Chromatography A, 2005, 1099, 103-110.	3.7	32
36	Multiplexed Detection of Analytes on Single Test Strips with Antibodyâ€Gated Indicatorâ€Releasing Mesoporous Nanoparticles. Angewandte Chemie - International Edition, 2020, 59, 23862-23869.	13.8	32

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37	Novel Aflatoxin Derivatives and Protein Conjugates. Molecules, 2007, 12, 641-653.	3.8	31
38	Chemical modification of pro-inflammatory proteins by peroxynitrite increases activation of TLR4 and NF-Î²B: Implications for the health effects of air pollution and oxidative stress. Redox Biology, 2020, 37, 101581.	9.0	30
39	Whole-cell luminescence-based flow-through biodetector for toxicity testing. Analytical and Bioanalytical Chemistry, 2008, 390, 1181-1187.	3.7	29
40	Comparison of ICP-MS and photometric detection of an immunoassay for the determination of ochratoxin A in wine. Journal of Analytical Atomic Spectrometry, 2010, 25, 1567.	3.0	27
41	Extremely sensitive and selective antibodies against the explosive 2,4,6â€trinitrotoluene by rational design of a structurally optimized hapten. Journal of Molecular Recognition, 2012, 25, 89-97.	2.1	27
42	Comparison of nitrotyrosine antibodies and development of immunoassays for the detection of nitrated proteins. Analyst, The, 2004, 129, 589-596.	3.5	26
43	A Novel Immunoreagent for the Specific and Sensitive Detection of the Explosive Triacetone Triperoxide (TATP). Biosensors, 2011, 1, 93-106.	4.7	23
44	Combining Phage Display and Next-Generation Sequencing for Materials Sciences: A Case Study on Probing Polypropylene Surfaces. Journal of the American Chemical Society, 2020, 142, 10624-10628.	13.7	21
45	Development of a lateral flow test for rapid pyrethroid detection using antibody-gated indicator-releasing hybrid materials. Analyst, The, 2020, 145, 3490-3494.	3.5	21
46	Triacetone Triperoxide (TATP): Hapten Design and Development of Antibodies. Langmuir, 2010, 26, 15418-15423.	3.5	20
47	Cetirizine as pH-dependent cross-reactant in a carbamazepine-specific immunoassay. Analyst, The, 2011, 136, 1357.	3.5	19
48	Classification of protein microarrays and related techniques. Analytical and Bioanalytical Chemistry, 2003, 375, 15-17.	3.7	18
49	CMOS-Compatible Silicon Photonic Sensor for Refractive Index Sensing Using Local Back-Side Release. IEEE Photonics Technology Letters, 2020, 32, 1241-1244.	2.5	17
50	Immunological determination of triazine pesticides bound to soil humic acids (bound residues). Analytical and Bioanalytical Chemistry, 1996, 354, 352-358.	3.7	16
51	Homogeneous immunoassay for the detection of trinitrotoluene (TNT) based on the reactivation of apoglucose oxidase using a novel FAD-trinitrotoluene conjugate. Fresenius' Journal of Analytical Chemistry, 1998, 361, 174-178.	1.5	16
52	Online immunocapture ICP-MS for the determination of the metalloprotein ceruloplasmin in human serum. BMC Research Notes, 2018, 11, 213.	1.4	16
53	A heterogeneous immunoassay for the determination of triazine herbicides in water. Fresenius' Journal of Analytical Chemistry, 1991, 339, 468-469.	1.5	15
54	Immunological method for the detection of nitroaromatic residues covalently bound to humic acids. Fresenius' Journal of Analytical Chemistry, 1998, 360, 192-198.	1.5	15

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55	Protein Quantification by Derivatization-Free High-Performance Liquid Chromatography of Aromatic Amino Acids. Journal of Amino Acids, 2016, 2016, 1-8.	5.8	15
56	Improved LC-MS/MS method for the quantification of hepcidin-25 in clinical samples. Analytical and Bioanalytical Chemistry, 2018, 410, 3835-3846.	3.7	15
57	Silicon Photonic Micro-Ring Resonators for Chemical and Biological Sensing: A Tutorial. IEEE Sensors Journal, 2022, 22, 10089-10105.	4.7	15
58	Determination of the protein content of complex samples by aromatic amino acid analysis, liquid chromatography-UV absorbance, and colorimetry. Analytical and Bioanalytical Chemistry, 2022, 414, 4457-4470.	3.7	15
59	Selection of hapten structures for indirect immunosensor arrays. Fresenius' Journal of Analytical Chemistry, 1999, 363, 625-631.	1.5	14
60	Microplate-based screening methods for the efficient development of sandwich immunoassays. Analyst, The, 2005, 130, 1580.	3.5	14
61	Investigations of the Copper Peptide Hepcidin-25 by LC-MS/MS and NMR. International Journal of Molecular Sciences, 2018, 19, 2271.	4.1	14
62	Antibody Screening by Microarray Technologyâ€"Direct Identification of Selective High-Affinity Clones. Antibodies, 2020, 9, 1.	2.5	14
63	Oligomerization and Nitration of the Grass Pollen Allergen Phl p 5 by Ozone, Nitrogen Dioxide, and Peroxynitrite: Reaction Products, Kinetics, and Health Effects. International Journal of Molecular Sciences, 2021, 22, 7616.	4.1	14
64	Improvement of a Monoclonal Antibody-based Immunoassay for the Determination of Terbutryn Verbesserung eines Immunassays mit monoklonalen AntikÃ¶rpern zur Bestimmung von Terbutryn. Clean - Soil, Air, Water, 1993, 21, 312-315.	0.6	13
65	A novel method for the determination of a PCB sum value by enzyme immunoassay to overcome the cross-reactivity problem. Fresenius' Journal of Analytical Chemistry, 1999, 363, 777-782.	1.5	13
66	Development of highly sensitive and selective antibodies for the detection of the explosive pentaerythritol tetranitrate (PETN) by bioisosteric replacement. Journal of Molecular Recognition, 2016, 29, 88-94.	2.1	13
67	Simultaneous determination of nitrated and oligomerized proteins by size exclusion high-performance liquid chromatography coupled to photodiode array detection. Journal of Chromatography A, 2017, 1495, 76-82.	3.7	13
68	Increased sensitivity and selectivity of an enzyme-linked immunosorbent assay for the determination of atrazine by use of non-ionic surfactants. Fresenius' Journal of Analytical Chemistry, 1995, 351, 301-304.	1.5	12
69	Immunochemical array for the identification of cross-reacting analytes. Fresenius' Journal of Analytical Chemistry, 1999, 363, 731-737.	1.5	12
70	Enzyme-Linked Immunosorbent Assay for Humic Acids.. Analytical Sciences, 1993, 9, 795-797.	1.6	11
71	Preactivation Crosslinkingâ€"An Efficient Method for the Oriented Immobilization of Antibodies. Methods and Protocols, 2019, 2, 35.	2.0	11
72	002 Determination of triazine herbicides by ELISA ? Optimization of enzyme tracer synthesis. Fresenius' Journal of Analytical Chemistry, 1992, 343, 51-52.	1.5	10

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73	Comparison of the fragmentation behavior of differentially metalâ€coded affinity tag (MeCAT)â€labeled peptides. Journal of Mass Spectrometry, 2012, 47, 885-889.	1.6	10
74	Development of Antibodies for the Detection of N-Acetyl-glufosinateÂ§. Journal of Agricultural and Food Chemistry, 2003, 51, 6668-6675.	5.2	9
75	Optimization of analytical assay performance of antibody-gated indicator-releasing mesoporous silica particles. Journal of Materials Chemistry B, 2020, 8, 4950-4961.	5.8	9
76	‹title›Stabilization of horseradish peroxidase (HRP) for use in immunochemical sensors‹/title›. , 1997, , .		8
77	Fast Detection of 2,4,6-Trinitrotoluene (TNT) at ppt Level by a Laser-Induced Immunofluorometric Biosensor. Biosensors, 2020, 10, 89.	4.7	8
78	Cocaine Detection by a Laser-Induced Immunofluorometric Biosensor. Biosensors, 2021, 11, 313.	4.7	8
79	New monoclonal antibodies to triazine herbicides. Fresenius' Journal of Analytical Chemistry, 1994, 349, 346-348.	1.5	7
80	Detection of bound nitroaromatic residues in soil by immunoassay. Fresenius' Journal of Analytical Chemistry, 1998, 360, 781-783.	1.5	7
81	Fast Confirmation of Antibody Identity by MALDI-TOF MS Fingerprints. Antibodies, 2020, 9, 8.	2.5	7
82	Environmental analysis. Fresenius' Journal of Analytical Chemistry, 1990, 337, 73-78.	1.5	6
83	‹title›Affinity patterns of enzyme tracers for triazine immunoassays‹/title›. , 1997, , .		6
84	Oligoepoxideâ€Based Monoliths: Synthesis and Application as Affinity Capillary Column for Enrichment of Immunoglobulin G. Macromolecular Chemistry and Physics, 2012, 213, 2398-2403.	2.2	6
85	Efficient Screening of Combinatorial Peptide Libraries by Spatially Ordered Beads Immobilized on Conventional Glass Slides. High-Throughput, 2019, 8, 11.	4.4	6
86	Non-invasive monitoring of immunization progress in mice via IgG from feces. In Vivo, 2012, 26, 63-9.	1.3	6
87	ADAMTS4-specific MR probe to assess aortic aneurysms in vivo using synthetic peptide libraries. Nature Communications, 2022, 13, .	12.8	6
88	Novel Concepts for the Immunological Detection of Bound Residues. International Journal of Environmental Analytical Chemistry, 1999, 75, 201-215.	3.3	5
89	Stabilization of antibodies by haptens. Fresenius' Journal of Analytical Chemistry, 1999, 363, 619-624.	1.5	5
90	Optical microarray biosensors. Analytical and Bioanalytical Chemistry, 2005, 381, 41-43.	3.7	5

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91	Monitoring Caffeine in Human Saliva Using a Newly Developed ELISA. Analytical Letters, 2012, 45, 2549-2561.	1.8	5
92	Multiplexâ€Nachweis von Analyten auf einem einzelnen Teststreifen mit AntikÃ¶rperâ€gesteuerten und Indikator freisetzenden mesoporÃ¶sen Nanopartikeln. Angewandte Chemie, 2020, 132, 24071-24078.	2.0	5
93	Procedure providing SI-traceable results for the calibration of protein standards by sulfur determination and its application on tau. Analytical and Bioanalytical Chemistry, 2022, 414, 4441-4455.	3.7	5
94	‹title›Detection of bound residues in soils by sandwich-immunoassay‹/title›. , 1995, , .		4
95	Characterization of a covalent triazine-humic acid conjugate by gas chromatography. Fresenius' Journal of Analytical Chemistry, 1998, 360, 824-826.	1.5	4
96	Predictable Peptide Conjugation Ratios by Activation of Proteins with Succinimidyl Iodoacetate (SIA). Methods and Protocols, 2018, 1, 2.	2.0	4
97	The Protocol Gap. Methods and Protocols, 2021, 4, 12.	2.0	4
98	Immunochemical Design of Antibody-Gated Indicator Delivery (gAID) Systems Based on Mesoporous Silica Nanoparticles. ACS Applied Nano Materials, 2022, 5, 626-641.	5.0	4
99	Immunoassays fÃ¼r die Umweltanalytik. Nachrichten Aus Der Chemie, 1997, 45, 1090-1096.	0.0	3
100	Sintered Glass Monoliths as Supports for Affinity Columns. Separations, 2021, 8, 56.	2.4	3
101	MALDI-TOF-MS-Based Identification of Monoclonal Murine Anti-SARS-CoV-2 Antibodies within One Hour. Antibodies, 2022, 11, 27.	2.5	3
102	Algengifte im Wasser. Nachrichten Aus Der Chemie, 2002, 50, 700-705.	0.0	2
103	European Survey for Hidden Allergens in Food: A Case Study with Peanut and Hazelnut. ACS Symposium Series, 2008, , 370-381.	0.5	2
104	Analytische Chemie 1999. Nachrichten Aus Der Chemie, 2000, 48, 348-354.	0.0	1
105	Trendbericht Analytische Chemie 2000/2001. Nachrichten Aus Der Chemie, 2002, 50, 483-487.	0.0	1
106	Analytische Chemie 2005. Nachrichten Aus Der Chemie, 2006, 54, 382-389.	0.0	1
107	Analytische Chemie 2003. Nachrichten Aus Der Chemie, 2004, 52, 544-553.	0.0	0
108	Mit dem Testsystem zur Probe. Nachrichten Aus Der Chemie, 2021, 69, 71-74.	0.0	0