

Michael G Weller

List of Publications by Year in descending order

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108
papers

3,728
citations

136740

32
h-index

143772

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. <i>Analytical Chemistry</i> , 2004, 76, 646-654.	3.2	242
2	Fiber-Optic Evanescent Wave Biosensor for the Detection of Oligonucleotides. <i>Analytical Chemistry</i> , 1996, 68, 2905-2912.	3.2	211
3	Air Pollution and Climate Change Effects on Allergies in the Anthropocene: Abundance, Interaction, and Modification of Allergens and Adjuvants. <i>Environmental Science & Technology</i> , 2017, 51, 4119-4141.	4.6	193
4	Protein Nitration by Polluted Air. <i>Environmental Science & Technology</i> , 2005, 39, 1673-1678.	4.6	183
5	Phenanthrene-Fused Boronâ€”Dipyromethenes as Bright Long-Wavelength Fluorophores. <i>Organic Letters</i> , 2008, 10, 1581-1584.	2.4	145
6	A Unifying Review of Bioassay-Guided Fractionation, Effect-Directed Analysis and Related Techniques. <i>Sensors</i> , 2012, 12, 9181-9209.	2.1	132
7	Microarrays for the Screening of Allergen-Specific IgE in Human Serum. <i>Analytical Chemistry</i> , 2003, 75, 556-562.	3.2	121
8	Nitration Enhances the Allergenic Potential of Proteins. <i>International Archives of Allergy and Immunology</i> , 2006, 141, 265-275.	0.9	114
9	Immunochemical techniques - a critical review. <i>Fresenius' Journal of Analytical Chemistry</i> , 2000, 366, 635-645.	1.5	111
10	Quality Issues of Research Antibodies. <i>Analytical Chemistry Insights</i> , 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. <i>Chemosphere</i> , 2012, 89, 1278-1286.	4.2	96
12	Highly sensitive immunoassay based on a monoclonal antibody specific for [4-arginine]microcystins. <i>Analytica Chimica Acta</i> , 2001, 441, 1-13.	2.6	93
13	Generic microcystin immunoassay based on monoclonal antibodies against Adda. <i>Analyst, The</i> , 2001, 126, 2002-2007.	1.7	90
14	Monitoring carbamazepine in surface and wastewaters by an immunoassay based on a monoclonal antibody. <i>Analytical and Bioanalytical Chemistry</i> , 2009, 395, 1809-1820.	1.9	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. <i>Analytica Chimica Acta</i> , 1999, 393, 29-41.	2.6	75
16	Characterization of a monoclonal TNT-antibody by measurement of the cross-reactivities of nitroaromatic compounds. <i>Fresenius' Journal of Analytical Chemistry</i> , 1999, 364, 113-120.	1.5	66
17	Sandwich Immunoassays for the Determination of Peanut and Hazelnut Traces in Foods. <i>Journal of Agricultural and Food Chemistry</i> , 2005, 53, 3321-3327.	2.4	62
18	Release of free amino acids upon oxidation of peptides and proteins by hydroxyl radicals. <i>Analytical and Bioanalytical Chemistry</i> , 2017, 409, 2411-2420.	1.9	62

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19	Immunoassays and Biosensors for the Detection of Cyanobacterial Toxins in Water. <i>Sensors</i> , 2013, 13, 15085-15112.	2.1	58
20	Enzyme immunoassays for the investigation of protein nitration by air pollutants. <i>Analyst</i> , 2003, 128, 824-831.	1.7	56
21	Increased sensitivity of an enzyme immunoassay (ELISA) for the determination of triazine herbicides by variation of tracer incubation time. <i>Mikrochimica Acta</i> , 1992, 108, 29-40.	2.5	52
22	Development of a highly sensitive enzyme-immunoassay for the determination of triazine herbicides. <i>Fresenius' Journal of Analytical Chemistry</i> , 1997, 358, 614-622.	1.5	51
23	Multidimensional Biochemical Detection of Microcystins in Liquid Chromatography. <i>Analytical Chemistry</i> , 2001, 73, 5509-5517.	3.2	43
24	A highly sensitive caffeine immunoassay based on a monoclonal antibody. <i>Analytical and Bioanalytical Chemistry</i> , 2010, 396, 2617-2628.	1.9	43
25	Selective, Sensitive, and Rapid Analysis with Lateral-Flow Assays Based on Antibody-Gated Dye-Delivery Systems: The Example of Triacetone Triperoxide. <i>Chemistry - A European Journal</i> , 2013, 19, 4117-4122.	1.7	43
26	Dip-and-read test strips for the determination of trinitrotoluene (TNT) in drinking water. <i>Analytica Chimica Acta</i> , 1999, 396, 309-316.	2.6	40
27	Ten Basic Rules of Antibody Validation. <i>Analytical Chemistry Insights</i> , 2018, 13, 117739011875746.	2.7	39
28	Digging into the Sequential Space of Thiolactone Precision Polymers: A Combinatorial Strategy to Identify Functional Domains. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 1960-1964.	7.2	39
29	Liquid- and Gas-Phase Nitration of Bovine Serum Albumin Studied by LC-MS and LC-MS/MS Using Monolithic Columns. <i>Journal of Proteome Research</i> , 2003, 2, 534-542.	1.8	37
30	Atmospheric protein chemistry influenced by anthropogenic air pollutants: nitration and oligomerization upon exposure to ozone and nitrogen dioxide. <i>Faraday Discussions</i> , 2017, 200, 413-427.	1.6	37
31	MeCAT [®] new iodoacetamide reagents for metal labeling of proteins and peptides. <i>Analytical and Bioanalytical Chemistry</i> , 2011, 401, 1203-1209.	1.9	35
32	Quantification of N-hydroxysuccinimide and N-hydroxysulfosuccinimide by hydrophilic interaction chromatography (HILIC). <i>Analytical Methods</i> , 2015, 7, 6443-6448.	1.3	34
33	Reductive Transformation of Bound Trinitrophenyl Residues and Free TNT during a Bioremediation Process Analyzed by Immunoassay. <i>Environmental Science & Technology</i> , 1999, 33, 3421-3426.	4.6	32
34	Development of a Direct Competitive Microcystin Immunoassay of Broad Specificity.. <i>Analytical Sciences</i> , 2001, 17, 1445-1448.	0.8	32
35	Effect-directed analysis by high-performance liquid chromatography with gas-segmented enzyme inhibition. <i>Journal of Chromatography A</i> , 2005, 1099, 103-110.	1.8	32
36	Multiplexed Detection of Analytes on Single Test Strips with Antibody-Gated Indicator-Releasing Mesoporous Nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 23862-23869.	7.2	32

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37	Novel Aflatoxin Derivatives and Protein Conjugates. <i>Molecules</i> , 2007, 12, 641-653.	1.7	31
38	Chemical modification of pro-inflammatory proteins by peroxyxynitrite increases activation of TLR4 and NF- κ B: Implications for the health effects of air pollution and oxidative stress. <i>Redox Biology</i> , 2020, 37, 101581.	3.9	30
39	Whole-cell luminescence-based flow-through biodetector for toxicity testing. <i>Analytical and Bioanalytical Chemistry</i> , 2008, 390, 1181-1187.	1.9	29
40	Comparison of ICP-MS and photometric detection of an immunoassay for the determination of ochratoxin A in wine. <i>Journal of Analytical Atomic Spectrometry</i> , 2010, 25, 1567.	1.6	27
41	Extremely sensitive and selective antibodies against the explosive 2,4,6-trinitrotoluene by rational design of a structurally optimized hapten. <i>Journal of Molecular Recognition</i> , 2012, 25, 89-97.	1.1	27
42	Comparison of nitrotyrosine antibodies and development of immunoassays for the detection of nitrated proteins. <i>Analyst, The</i> , 2004, 129, 589-596.	1.7	26
43	A Novel Immunoreagent for the Specific and Sensitive Detection of the Explosive Triacetone Triperoxide (TATP). <i>Biosensors</i> , 2011, 1, 93-106.	2.3	23
44	Combining Phage Display and Next-Generation Sequencing for Materials Sciences: A Case Study on Probing Polypropylene Surfaces. <i>Journal of the American Chemical Society</i> , 2020, 142, 10624-10628.	6.6	21
45	Development of a lateral flow test for rapid pyrethroid detection using antibody-gated indicator-releasing hybrid materials. <i>Analyst, The</i> , 2020, 145, 3490-3494.	1.7	21
46	Triacetone Triperoxide (TATP): Hapten Design and Development of Antibodies. <i>Langmuir</i> , 2010, 26, 15418-15423.	1.6	20
47	Cetirizine as pH-dependent cross-reactant in a carbamazepine-specific immunoassay. <i>Analyst, The</i> , 2011, 136, 1357.	1.7	19
48	Classification of protein microarrays and related techniques. <i>Analytical and Bioanalytical Chemistry</i> , 2003, 375, 15-17.	1.9	18
49	CMOS-Compatible Silicon Photonic Sensor for Refractive Index Sensing Using Local Back-Side Release. <i>IEEE Photonics Technology Letters</i> , 2020, 32, 1241-1244.	1.3	17
50	Immunological determination of triazine pesticides bound to soil humic acids (bound residues). <i>Analytical and Bioanalytical Chemistry</i> , 1996, 354, 352-358.	1.9	16
51	Homogeneous immunoassay for the detection of trinitrotoluene (TNT) based on the reactivation of apoglucose oxidase using a novel FAD-trinitrotoluene conjugate. <i>Fresenius' Journal of Analytical Chemistry</i> , 1998, 361, 174-178.	1.5	16
52	Online immunocapture ICP-MS for the determination of the metalloprotein ceruloplasmin in human serum. <i>BMC Research Notes</i> , 2018, 11, 213.	0.6	16
53	A heterogeneous immunoassay for the determination of triazine herbicides in water. <i>Fresenius' Journal of Analytical Chemistry</i> , 1991, 339, 468-469.	1.5	15
54	Immunological method for the detection of nitroaromatic residues covalently bound to humic acids. <i>Fresenius' Journal of Analytical Chemistry</i> , 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. <i>Journal of Amino Acids</i> , 2016, 2016, 1-8.	5.8	15
56	Improved LC-MS/MS method for the quantification of hepcidin-25 in clinical samples. <i>Analytical and Bioanalytical Chemistry</i> , 2018, 410, 3835-3846.	1.9	15
57	Silicon Photonic Micro-Ring Resonators for Chemical and Biological Sensing: A Tutorial. <i>IEEE Sensors Journal</i> , 2022, 22, 10089-10105.	2.4	15
58	Determination of the protein content of complex samples by aromatic amino acid analysis, liquid chromatography-UV absorbance, and colorimetry. <i>Analytical and Bioanalytical Chemistry</i> , 2022, 414, 4457-4470.	1.9	15
59	Selection of hapten structures for indirect immunosensor arrays. <i>Fresenius' Journal of Analytical Chemistry</i> , 1999, 363, 625-631.	1.5	14
60	Microplate-based screening methods for the efficient development of sandwich immunoassays. <i>Analyst</i> , The, 2005, 130, 1580.	1.7	14
61	Investigations of the Copper Peptide Hepcidin-25 by LC-MS/MS and NMR. <i>International Journal of Molecular Sciences</i> , 2018, 19, 2271.	1.8	14
62	Antibody Screening by Microarray Technology – Direct Identification of Selective High-Affinity Clones. <i>Antibodies</i> , 2020, 9, 1.	1.2	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. <i>International Journal of Molecular Sciences</i> , 2021, 22, 7616.	1.8	14
64	Improvement of a Monoclonal Antibody-based Immunoassay for the Determination of Terbutryn Verbesserung eines Immunassays mit monoklonalen Antikörpern zur Bestimmung von Terbutryn. <i>Clean - Soil, Air, Water</i> , 1993, 21, 312-315.	0.8	13
65	A novel method for the determination of a PCB sum value by enzyme immunoassay to overcome the cross-reactivity problem. <i>Fresenius' Journal of Analytical Chemistry</i> , 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. <i>Journal of Molecular Recognition</i> , 2016, 29, 88-94.	1.1	13
67	Simultaneous determination of nitrated and oligomerized proteins by size exclusion high-performance liquid chromatography coupled to photodiode array detection. <i>Journal of Chromatography A</i> , 2017, 1495, 76-82.	1.8	13
68	Increased sensitivity and selectivity of an enzyme-linked immunosorbent assay for the determination of atrazine by use of non-ionic surfactants. <i>Fresenius' Journal of Analytical Chemistry</i> , 1995, 351, 301-304.	1.5	12
69	Immunochemical array for the identification of cross-reacting analytes. <i>Fresenius' Journal of Analytical Chemistry</i> , 1999, 363, 731-737.	1.5	12
70	Enzyme-Linked Immunosorbent Assay for Humic Acids.. <i>Analytical Sciences</i> , 1993, 9, 795-797.	0.8	11
71	Preactivation Crosslinking – An Efficient Method for the Oriented Immobilization of Antibodies. <i>Methods and Protocols</i> , 2019, 2, 35.	0.9	11
72	002 Determination of triazine herbicides by ELISA ? Optimization of enzyme tracer synthesis. <i>Fresenius' Journal of Analytical Chemistry</i> , 1992, 343, 51-52.	1.5	10

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73	Comparison of the fragmentation behavior of differentially metal-coded affinity tag (MeCAT)-labeled peptides. <i>Journal of Mass Spectrometry</i> , 2012, 47, 885-889.	0.7	10
74	Development of Antibodies for the Detection of N-Acetyl-glufosinate. <i>Journal of Agricultural and Food Chemistry</i> , 2003, 51, 6668-6675.	2.4	9
75	Optimization of analytical assay performance of antibody-gated indicator-releasing mesoporous silica particles. <i>Journal of Materials Chemistry B</i> , 2020, 8, 4950-4961.	2.9	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. <i>Biosensors</i> , 2020, 10, 89.	2.3	8
78	Cocaine Detection by a Laser-Induced Immunofluorometric Biosensor. <i>Biosensors</i> , 2021, 11, 313.	2.3	8
79	New monoclonal antibodies to triazine herbicides. <i>Fresenius' Journal of Analytical Chemistry</i> , 1994, 349, 346-348.	1.5	7
80	Detection of bound nitroaromatic residues in soil by immunoassay. <i>Fresenius' Journal of Analytical Chemistry</i> , 1998, 360, 781-783.	1.5	7
81	Fast Confirmation of Antibody Identity by MALDI-TOF MS Fingerprints. <i>Antibodies</i> , 2020, 9, 8.	1.2	7
82	Environmental analysis. <i>Fresenius' Journal of Analytical Chemistry</i> , 1990, 337, 73-78.	1.5	6
83	<title>Affinity patterns of enzyme tracers for triazine immunoassays</title>. , 1997, , .		6
84	Oligoepoxide-Based Monoliths: Synthesis and Application as Affinity Capillary Column for Enrichment of Immunoglobulin G. <i>Macromolecular Chemistry and Physics</i> , 2012, 213, 2398-2403.	1.1	6
85	Efficient Screening of Combinatorial Peptide Libraries by Spatially Ordered Beads Immobilized on Conventional Glass Slides. <i>High-Throughput</i> , 2019, 8, 11.	4.4	6
86	Non-invasive monitoring of immunization progress in mice via IgG from feces. <i>In Vivo</i> , 2012, 26, 63-9.	0.6	6
87	ADAMTS4-specific MR probe to assess aortic aneurysms in vivo using synthetic peptide libraries. <i>Nature Communications</i> , 2022, 13, .	5.8	6
88	Novel Concepts for the Immunological Detection of Bound Residues. <i>International Journal of Environmental Analytical Chemistry</i> , 1999, 75, 201-215.	1.8	5
89	Stabilization of antibodies by haptens. <i>Fresenius' Journal of Analytical Chemistry</i> , 1999, 363, 619-624.	1.5	5
90	Optical microarray biosensors. <i>Analytical and Bioanalytical Chemistry</i> , 2005, 381, 41-43.	1.9	5

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91	Monitoring Caffeine in Human Saliva Using a Newly Developed ELISA. Analytical Letters, 2012, 45, 2549-2561.	1.0	5
92	Multiplex-Immunoassay zur Nachweis von Analyten auf einem einzelnen Teststreifen mit Antikörper-gesteuerten und Indikator freisetzenden mesoporen Nanopartikeln. Angewandte Chemie, 2020, 132, 24071-24078.	1.6	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.	1.9	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.	0.9	4
97	The Protocol Gap. Methods and Protocols, 2021, 4, 12.	0.9	4
98	Immunochemical Design of Antibody-Gated Indicator Delivery (gAID) Systems Based on Mesoporous Silica Nanoparticles. ACS Applied Nano Materials, 2022, 5, 626-641.	2.4	4
99	Immunoassays für 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.	1.1	3
101	MALDI-TOF-MS-Based Identification of Monoclonal Murine Anti-SARS-CoV-2 Antibodies within One Hour. Antibodies, 2022, 11, 27.	1.2	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