

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	Silicon Photonic Micro-Ring Resonators for Chemical and Biological Sensing: A Tutorial. <i>IEEE Sensors Journal</i> , 2022, 22, 10089-10105.	2.4	15
2	Procedure providing SI-traceable results for the calibration of protein standards by sulfur determination and its application on tau. <i>Analytical and Bioanalytical Chemistry</i> , 2022, 414, 4441-4455.	1.9	5
3	Immunochemical Design of Antibody-Gated Indicator Delivery (gAID) Systems Based on Mesoporous Silica Nanoparticles. <i>ACS Applied Nano Materials</i> , 2022, 5, 626-641.	2.4	4
4	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
5	MALDI-TOF-MS-Based Identification of Monoclonal Murine Anti-SARS-CoV-2 Antibodies within One Hour. <i>Antibodies</i> , 2022, 11, 27.	1.2	3
6	ADAMTS4-specific MR probe to assess aortic aneurysms in vivo using synthetic peptide libraries. <i>Nature Communications</i> , 2022, 13, .	5.8	6
7	The Protocol Gap. <i>Methods and Protocols</i> , 2021, 4, 12.	0.9	4
8	Sintered Glass Monoliths as Supports for Affinity Columns. <i>Separations</i> , 2021, 8, 56.	1.1	3
9	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
10	Cocaine Detection by a Laser-Induced Immunofluorometric Biosensor. <i>Biosensors</i> , 2021, 11, 313.	2.3	8
11	Mit dem Testsystem zur Probe. <i>Nachrichten Aus Der Chemie</i> , 2021, 69, 71-74.	0.0	0
12	Antibody Screening by Microarray Technologyâ€”Direct Identification of Selective High-Affinity Clones. <i>Antibodies</i> , 2020, 9, 1.	1.2	14
13	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
14	Chemical modification of pro-inflammatory proteins by peroxynitrite 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
15	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
16	Multiplexed Detection of Analytes on Single Test Strips with Antibodyâ€”Gated Indicatorâ€”Releasing Mesoporous Nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 23862-23869.	7.2	32
17	Multiplexâ€”Nachweis von Analyten auf einem einzelnen Teststreifen mit AntikÃ¶rperâ€”gesteuerten und Indikator freisetzenden mesoporÃ¶sen Nanopartikeln. <i>Angewandte Chemie</i> , 2020, 132, 24071-24078.	1.6	5
18	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

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19	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
20	Development of a lateral flow test for rapid pyrethroid detection using antibody-gated indicator-releasing hybrid materials. <i>Analyst</i> , 2020, 145, 3490-3494.	1.7	21
21	Fast Confirmation of Antibody Identity by MALDI-TOF MS Fingerprints. <i>Antibodies</i> , 2020, 9, 8.	1.2	7
22	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
23	Preactivation Crosslinking—An Efficient Method for the Oriented Immobilization of Antibodies. <i>Methods and Protocols</i> , 2019, 2, 35.	0.9	11
24	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
25	Ten Basic Rules of Antibody Validation. <i>Analytical Chemistry Insights</i> , 2018, 13, 117739011875746.	2.7	39
26	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
27	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
28	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
29	Predictable Peptide Conjugation Ratios by Activation of Proteins with Succinimidyl Iodoacetate (SIA). <i>Methods and Protocols</i> , 2018, 1, 2.	0.9	4
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	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
32	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
33	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
34	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
35	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
36	Quality Issues of Research Antibodies. <i>Analytical Chemistry Insights</i> , 2016, 11, ACI.S31614.	2.7	97

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37	Quantification of N-hydroxysuccinimide and N-hydroxysulfosuccinimide by hydrophilic interaction chromatography (HILIC). <i>Analytical Methods</i> , 2015, 7, 6443-6448.	1.3	34
38	Immunoassays and Biosensors for the Detection of Cyanobacterial Toxins in Water. <i>Sensors</i> , 2013, 13, 15085-15112.	2.1	58
39	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
40	Monitoring Caffeine in Human Saliva Using a Newly Developed ELISA. <i>Analytical Letters</i> , 2012, 45, 2549-2561.	1.0	5
41	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
42	A Unifying Review of Bioassay-Guided Fractionation, Effect-Directed Analysis and Related Techniques. <i>Sensors</i> , 2012, 12, 9181-9209.	2.1	132
43	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
44	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
45	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
46	Non-invasive monitoring of immunization progress in mice via IgG from feces. <i>In Vivo</i> , 2012, 26, 63-9.	0.6	6
47	Cetirizine as pH-dependent cross-reactant in a carbamazepine-specific immunoassay. <i>Analyst</i> , The, 2011, 136, 1357.	1.7	19
48	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
49	MeCAT's new iodoacetamide reagents for metal labeling of proteins and peptides. <i>Analytical and Bioanalytical Chemistry</i> , 2011, 401, 1203-1209.	1.9	35
50	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
51	Triacetone Triperoxide (TATP): Hapten Design and Development of Antibodies. <i>Langmuir</i> , 2010, 26, 15418-15423.	1.6	20
52	A highly sensitive caffeine immunoassay based on a monoclonal antibody. <i>Analytical and Bioanalytical Chemistry</i> , 2010, 396, 2617-2628.	1.9	43
53	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
54	Whole-cell luminescence-based flow-through biodetector for toxicity testing. <i>Analytical and Bioanalytical Chemistry</i> , 2008, 390, 1181-1187.	1.9	29

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55	European Survey for Hidden Allergens in Food: A Case Study with Peanut and Hazelnut. ACS Symposium Series, 2008, , 370-381.	0.5	2
56	Phenanthrene-Fused Boronâˆ“Dipyrromethenes as Bright Long-Wavelength Fluorophores. Organic Letters, 2008, 10, 1581-1584.	2.4	145
57	Novel Aflatoxin Derivatives and Protein Conjugates. Molecules, 2007, 12, 641-653.	1.7	31
58	Nitration Enhances the Allergenic Potential of Proteins. International Archives of Allergy and Immunology, 2006, 141, 265-275.	0.9	114
59	Analytische Chemie 2005. Nachrichten Aus Der Chemie, 2006, 54, 382-389.	0.0	1
60	Effect-directed analysis by high-performance liquid chromatography with gas-segmented enzyme inhibition. Journal of Chromatography A, 2005, 1099, 103-110.	1.8	32
61	Microplate-based screening methods for the efficient development of sandwich immunoassays. Analyst, The, 2005, 130, 1580.	1.7	14
62	Protein Nitration by Polluted Air. Environmental Science & Technology, 2005, 39, 1673-1678.	4.6	183
63	Optical microarray biosensors. Analytical and Bioanalytical Chemistry, 2005, 381, 41-43.	1.9	5
64	Sandwich Immunoassays for the Determination of Peanut and Hazelnut Traces in Foods. Journal of Agricultural and Food Chemistry, 2005, 53, 3321-3327.	2.4	62
65	Comparison of nitrotyrosine antibodies and development of immunoassays for the detection of nitrated proteins. Analyst, The, 2004, 129, 589-596.	1.7	26
66	Automated Microarray System for the Simultaneous Detection of Antibiotics in Milk. Analytical Chemistry, 2004, 76, 646-654.	3.2	242
67	Analytische Chemie 2003. Nachrichten Aus Der Chemie, 2004, 52, 544-553.	0.0	0
68	Liquid- and Gas-Phase Nitration of Bovine Serum Albumin Studied by LCâˆ“MS and LCâˆ“MS/MS Using Monolithic Columns. Journal of Proteome Research, 2003, 2, 534-542.	1.8	37
69	Classification of protein microarrays and related techniques. Analytical and Bioanalytical Chemistry, 2003, 375, 15-17.	1.9	18
70	Microarrays for the Screening of Allergen-Specific IgE in Human Serum. Analytical Chemistry, 2003, 75, 556-562.	3.2	121
71	Development of Antibodies for the Detection of N-Acetyl-glufosinateâˆ“. Journal of Agricultural and Food Chemistry, 2003, 51, 6668-6675.	2.4	9
72	Enzyme immunoassays for the investigation of protein nitration by air pollutants. Analyst, The, 2003, 128, 824-831.	1.7	56

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73	Trendbericht Analytische Chemie 2000/2001. Nachrichten Aus Der Chemie, 2002, 50, 483-487.	0.0	1
74	Algengifte im Wasser. Nachrichten Aus Der Chemie, 2002, 50, 700-705.	0.0	2
75	Generic microcystin immunoassay based on monoclonal antibodies against Adda. Analyst, The, 2001, 126, 2002-2007.	1.7	90
76	Development of a Direct Competitive Microcystin Immunoassay of Broad Specificity.. Analytical Sciences, 2001, 17, 1445-1448.	0.8	32
77	Highly sensitive immunoassay based on a monoclonal antibody specific for [4-arginine]microcystins. Analytica Chimica Acta, 2001, 441, 1-13.	2.6	93
78	Multidimensional Biochemical Detection of Microcystins in Liquid Chromatography. Analytical Chemistry, 2001, 73, 5509-5517.	3.2	43
79	Analytische Chemie 1999. Nachrichten Aus Der Chemie, 2000, 48, 348-354.	0.0	1
80	Immunochromatographic techniques - a critical review. Fresenius' Journal of Analytical Chemistry, 2000, 366, 635-645.	1.5	111
81	Novel Concepts for the Immunological Detection of Bound Residues. International Journal of Environmental Analytical Chemistry, 1999, 75, 201-215.	1.8	5
82	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.	2.6	75
83	Dip-and-read test strips for the determination of trinitrotoluene (TNT) in drinking water. Analytica Chimica Acta, 1999, 396, 309-316.	2.6	40
84	Stabilization of antibodies by haptens. Fresenius' Journal of Analytical Chemistry, 1999, 363, 619-624.	1.5	5
85	Selection of hapten structures for indirect immunosensor arrays. Fresenius' Journal of Analytical Chemistry, 1999, 363, 625-631.	1.5	14
86	Immunochemical array for the identification of cross-reacting analytes. Fresenius' Journal of Analytical Chemistry, 1999, 363, 731-737.	1.5	12
87	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
88	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
89	Reductive Transformation of Bound Trinitrophenyl Residues and Free TNT during a Bioremediation Process Analyzed by Immunoassay. Environmental Science & Technology, 1999, 33, 3421-3426.	4.6	32
90	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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91	Detection of bound nitroaromatic residues in soil by immunoassay. Fresenius' Journal of Analytical Chemistry, 1998, 360, 781-783.	1.5	7
92	Characterization of a covalent triazine-humic acid conjugate by gas chromatography. Fresenius' Journal of Analytical Chemistry, 1998, 360, 824-826.	1.5	4
93	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
94	<title>Stabilization of horseradish peroxidase (HRP) for use in immunochemical sensors</title>. , 1997, , .		8
95	<title>Affinity patterns of enzyme tracers for triazine immunoassays</title>. , 1997, , .		6
96	Immunoassays für die Umweltanalytik. Nachrichten Aus Der Chemie, 1997, 45, 1090-1096.	0.0	3
97	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
98	Fiber-Optic Evanescent Wave Biosensor for the Detection of Oligonucleotides. Analytical Chemistry, 1996, 68, 2905-2912.	3.2	211
99	Immunological determination of triazine pesticides bound to soil humic acids (bound residues). Analytical and Bioanalytical Chemistry, 1996, 354, 352-358.	1.9	16
100	<title>Detection of bound residues in soils by sandwich-immunoassay</title>. , 1995, , .		4
101	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
102	New monoclonal antibodies to triazine herbicides. Fresenius' Journal of Analytical Chemistry, 1994, 349, 346-348.	1.5	7
103	Improvement of a Monoclonal Antibody-based Immunoassay for the Determination of Terbutryn Verbesserung eines Immunassays mit monoklonalen Antikörpern zur Bestimmung von Terbutryn. Clean - Soil, Air, Water, 1993, 21, 312-315.	0.8	13
104	Enzyme-Linked Immunosorbent Assay for Humic Acids.. Analytical Sciences, 1993, 9, 795-797.	0.8	11
105	002 Determination of triazine herbicides by ELISA ? Optimization of enzyme tracer synthesis. Fresenius' Journal of Analytical Chemistry, 1992, 343, 51-52.	1.5	10
106	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.	2.5	52
107	A heterogeneous immunoassay for the determination of triazine herbicides in water. Fresenius' Journal of Analytical Chemistry, 1991, 339, 468-469.	1.5	15
108	Environmental analysis. Fresenius' Journal of Analytical Chemistry, 1990, 337, 73-78.	1.5	6