Antje Baeumner

List of Publications by Citations

133 papers	5,675 citations	43 h-index	71 g-index
150 ext. papers	6,344 ext. citations	6.9 avg, IF	6.41 L-index

#	Paper	IF	Citations
133	Miniaturized isothermal nucleic acid amplification, a review. *Lab on A Chip*, **2011**, 11, 1420-30	7.2	317
132	Functional Nanomaterials and Nanostructures Enhancing Electrochemical Biosensors and Lab-on-a-Chip Performances: Recent Progress, Applications, and Future Perspective. *Chemical Reviews*, **2019**, 119, 120-194	68.1	271
131	Biosensors for environmental pollutants and food contaminants. *Analytical and Bioanalytical Chemistry*, **2003**, 377, 434-45	4.4	188
130	RNA biosensor for the rapid detection of viable Escherichia coli in drinking water. *Biosensors and Bioelectronics*, **2003**, 18, 405-13	11.8	162
129	A MXene-Based Wearable Biosensor System for High-Performance In Vitro Perspiration Analysis. *Small*, **2019**, 15, e1901190	11	157
128	Electrospun polylactic acid nanofiber membranes as substrates for biosensor assemblies. *Journal of Membrane Science*, **2006**, 279, 354-363	9.6	145
127	Development of a microfluidic biosensor module for pathogen detection. *Lab on A Chip*, **2005**, 5, 805-11	7.2	143
126	A Megatrend Challenging Analytical Chemistry: Biosensor and Chemosensor Concepts Ready for the Internet of Things. *Chemical Reviews*, **2019**, 119, 7996-8027	68.1	132
125	Particle-Size-Dependent Förster Resonance Energy Transfer from Upconversion Nanoparticles to Organic Dyes. *Analytical Chemistry*, **2017**, 89, 4868-4874	7.8	125
124	Analysis of liposomes. *Talanta*, **2006**, 68, 1432-41	6.2	124
123	Liposomes in analyses. *Talanta*, **2006**, 68, 1421-31	6.2	116
122	Laser-Scribed Graphene Electrodes for Aptamer-Based Biosensing. *ACS Sensors*, **2017**, 2, 616-620	9.2	115
121	Trends and opportunities in food pathogen detection. *Analytical and Bioanalytical Chemistry*, **2008**, 391, 451-4	4.4	110
120	Electrochemical microfluidic biosensor for the detection of nucleic acid sequences. *Lab on A Chip*, **2006**, 6, 414-21	7.2	108
119	Biosensor for dengue virus detection: sensitive, rapid, and serotype specific. *Analytical Chemistry*, **2002**, 74, 1442-8	7.8	104
118	Electrochemical microfluidic biosensor for nucleic acid detection with integrated minipotentiostat. *Biosensors and Bioelectronics*, **2006**, 21, 2217-23	11.8	103
117	Ganglioside-liposome immunoassay for the ultrasensitive detection of cholera toxin. *Analytical Chemistry*, **2003**, 75, 2256-61	7.8	94

116	Microfluidic biosensor for the serotype-specific detection of dengue virus RNA. *Analytical Chemistry* , **2005**, 77, 7520-7	7.8	93
115	A universal nucleic acid sequence biosensor with nanomolar detection limits. *Analytical Chemistry*, **2004**, 76, 888-94	7.8	91
114	Recent progress in the design of nanofiber-based biosensing devices. *Lab on A Chip*, **2012**, 12, 2612-20	7.2	88
113	Bacillus anthracis: toxicology, epidemiology and current rapid-detection methods. *Analytical and Bioanalytical Chemistry*, **2006**, 384, 73-84	4.4	84
112	Highly sensitive and specific detection of viable Escherichia coli in drinking water. *Analytical Biochemistry*, **2002**, 303, 186-93	3.1	81
111	Characterization and Optimization of Interdigitated Ultramicroelectrode Arrays as Electrochemical Biosensor Transducers. *Electroanalysis*, **2004**, 16, 724-729	3	80
110	Nanomaterials as versatile tools for signal amplification in (bio)analytical applications. *TrAC - Trends in Analytical Chemistry*, **2016**, 79, 306-316	14.6	78
109	Detection of viable oocysts of Cryptosporidium parvum following nucleic acid sequence based amplification. *Analytical Chemistry*, **2001**, 73, 1176-80	7.8	78
108	PMMA biosensor for nucleic acids with integrated mixer and electrochemical detection. *Biosensors and Bioelectronics*, **2009**, 24, 2428-33	11.8	74
107	A microfluidic biosensor based on nucleic acid sequence recognition. *Analytical and Bioanalytical Chemistry*, **2003**, 376, 1062-8	4.4	73
106	Electrochemiluminescence Bioassays with a Water-Soluble Luminol Derivative Can Outperform Fluorescence Assays. *Angewandte Chemie - International Edition*, **2018**, 57, 408-411	16.4	73
105	Biosensors for the detection of waterborne pathogens. *Analytical and Bioanalytical Chemistry*, **2012** , 402, 117-27	4.4	69
104	A review of electrochemiluminescence (ECL) in and for microfluidic analytical devices. *Analytical and Bioanalytical Chemistry*, **2015**, 407, 3911-26	4.4	67
103	Microfluidic isolation of nucleic acids. *Angewandte Chemie - International Edition*, **2014**, 53, 13988-4001	16.4	63
102	Optimization of DNA-tagged dye-encapsulating liposomes for lateral-flow assays based on sandwich hybridization. *Analytical and Bioanalytical Chemistry*, **2006**, 386, 1335-43	4.4	58
101	Multi-analyte single-membrane biosensor for the serotype-specific detection of Dengue virus. *Analytical and Bioanalytical Chemistry*, **2004**, 380, 46-53	4.4	56
100	Biosensor for the specific detection of a single viable B. anthracis spore. *Analytical and Bioanalytical Chemistry*, **2003**, 376, 319-27	4.4	56
99	Detection of Cryptosporidium parvum using oligonucleotide-tagged liposomes in a competitive assay format. *Analytical Chemistry*, **2001**, 73, 3162-7	7.8	55

98	Micro-total analysis system for virus detection: microfluidic pre-concentration coupled to liposome-based detection. *Analytical and Bioanalytical Chemistry*, **2012**, 402, 315-23	4.4	54
97	A generic sandwich-type biosensor with nanomolar detection limits. *Analytical and Bioanalytical Chemistry*, **2004**, 378, 1587-93	4.4	52
96	Biosensors to support sustainable agriculture and food safety. *TrAC - Trends in Analytical Chemistry*, **2020**, 128, 115906	14.6	48
95	Human pathogenic Cryptosporidium species bioanalytical detection method with single oocyst detection capability. *Analytical and Bioanalytical Chemistry*, **2008**, 391, 487-95	4.4	48
94	Rapid and sensitive inhibition-based assay for the electrochemical detection of Ochratoxin A and Aflatoxin M1 in red wine and milk. *Electrochimica Acta*, **2017**, 243, 82-89	6.7	47
93	Aptamer sandwich assays: human □thrombin detection using liposome enhancement. *Analytical and Bioanalytical Chemistry*, **2010**, 398, 2645-54	4.4	47
92	Application of ganglioside-sensitized liposomes in a flow injection immunoanalytical system for the determination of cholera toxin. *Analytical Chemistry*, **2007**, 79, 246-50	7.8	45
91	A rapid biosensor for viable B. anthracis spores. *Analytical and Bioanalytical Chemistry*, **2004**, 380, 15-23	4.4	43
90	Thiamine Assays-Advances, Challenges, and Caveats. *ChemistryOpen*, **2017**, 6, 178-191	2.3	40
89	On-chip spectrophotometry for bioanalysis using microring resonators. *Biomedical Optics Express*, **2011**, 2, 271-7	3.5	40
88	Aptamer lateral flow assays for rapid and sensitive detection of cholera toxin. *Analyst, The*, **2019**, 144, 1840-1849	5	39
87	Laser-induced graphene interdigitated electrodes for label-free or nanolabel-enhanced highly sensitive capacitive aptamer-based biosensors. *Biosensors and Bioelectronics*, **2020**, 164, 112272	11.8	38
86	Combining electrochemical sensors with miniaturized sample preparation for rapid detection in clinical samples. *Sensors*, **2014**, 15, 547-64	3.8	37
85	Developing new materials for paper-based diagnostics using electrospun nanofibers. *Analytical and Bioanalytical Chemistry*, **2014**, 406, 3297-304	4.4	37
84	Isolation and amplification of mRNA within a simple microfluidic lab on a chip. *Analytical Chemistry*, **2014**, 86, 849-56	7.8	37
83	Optimization of DNA-tagged liposomes for use in microtiter plate analyses. *Analytical and Bioanalytical Chemistry*, **2006**, 386, 1613-23	4.4	37
82	Cholera toxin subunit B detection in microfluidic devices. *Analytical and Bioanalytical Chemistry*, **2009**, 393, 177-86	4.4	36
81	Universal liposomes: preparation and usage for the detection of mRNA. *Analytical and Bioanalytical Chemistry*, **2008**, 391, 1689-702	4.4	36

80	DNA-oligonucleotide encapsulating liposomes as a secondary signal amplification means. *Analytical Chemistry*, **2007**, 79, 1806-15	7.8	34
79	Development of a laser-induced cell lysis system. *Analytical and Bioanalytical Chemistry*, **2002**, 374, 421-6	4.4	34
78	An embedded system for portable electrochemical detection. *Sensors and Actuators B: Chemical*, **2007**, 123, 336-343	8.5	33
77	Capture and culturing of living cells on microstructured DNA substrates. *Small*, **2010**, 6, 2162-8	11	32
76	Nanocontainers for Analytical Applications. *Angewandte Chemie - International Edition*, **2019**, 58, 12840-12860	12.4	32
75	Miniaturized bioanalytical systems: enhanced performance through liposomes. *Current Opinion in Chemical Biology*, **2012**, 16, 444-52	9.7	31
74	Availability of biotin incorporated in electrospun PLA fibers for streptavidin binding. *Polymer*, **2007**, 48, 6340-6347	3.9	31
73	Sequential injection analysis system for the sandwich hybridization-based detection of nucleic acids. *Analytical Chemistry*, **2006**, 78, 1958-66	7.8	31
72	Multi-channel PMMA microfluidic biosensor with integrated IDUAs for electrochemical detection. *Analytical and Bioanalytical Chemistry*, **2013**, 405, 5965-74	4.4	30
71	Design and fabrication of a microfluidic device for near-single cell mRNA isolation using a copper hot embossing master. *Microsystem Technologies*, **2009**, 15, 477-483	1.7	26
70	A photonic crystal based sensing scheme for acetylcholine and acetylcholinesterase inhibitors. *Journal of Materials Chemistry B*, **2015**, 3, 2089-2095	7.3	25
69	Electrospun nanofibers for microfluidic analytical systems. *Polymer*, **2011**, 52, 3413-3421	3.9	25
68	Protein G-liposomal nanovesicles as universal reagents for immunoassays. *Talanta*, **2005**, 67, 205-11	6.2	24
67	A novel extraction method for peanut allergenic proteins in chocolate and their detection by a liposome-based lateral flow assay. *European Food Research and Technology*, **2005**, 221, 564-569	3.4	24
66	Functional electrospun nanofibers for multimodal sensitive detection of biogenic amines in food via a simple dipstick assay. *Analytical and Bioanalytical Chemistry*, **2018**, 410, 1111-1121	4.4	24
65	Functionalized electrospun poly(vinyl alcohol) nanofibers for on-chip concentration of E. coli cells. *Analytical and Bioanalytical Chemistry*, **2016**, 408, 1327-34	4.4	23
64	A biosensor assay for the detection of Mycobacterium avium subsp. paratuberculosis in fecal samples. *Journal of Veterinary Science*, **2009**, 10, 35-42	1.6	23
63	Aptamer sandwich assays: label-free and fluorescence investigations of heterogeneous binding events. *Analytical and Bioanalytical Chemistry*, **2010**, 398, 2635-44	4.4	23

62	Recirculating, passive micromixer with a novel sawtooth structure. *Lab on A Chip*, **2006**, 6, 242-6	7.2	22
61	PAMAM dendrimers: A multifunctional nanomaterial for ECL biosensors. *Talanta*, **2017**, 168, 126-129	6.2	21
60	Functionalized electrospun nanofibers as bioseparators in microfluidic systems. *Lab on A Chip*, **2012**, 12, 1696-701	7.2	20
59	Microfluidic biosensor for cholera toxin detection in fecal samples. *Analytical and Bioanalytical Chemistry*, **2015**, 407, 727-36	4.4	19
58	Enhancement of heterogeneous assays using fluorescent magnetic liposomes. *Analytical Chemistry*, **2014**, 86, 6610-6	7.8	19
57	Electrochemical multi-analyte point-of-care perspiration sensors using on-chip three-dimensional graphene electrodes. *Analytical and Bioanalytical Chemistry*, **2021**, 413, 763-777	4.4	19
56	Liposomes with High Refractive Index Encapsulants as Tunable Signal Amplification Tools in Surface Plasmon Resonance Spectroscopy. *Analytical Chemistry*, **2015**, 87, 11157-63	7.8	18
55	Application of a unique server-based oligonucleotide probe selection tool toward a novel biosensor for the detection of Streptococcus pyogenes. *Biosensors and Bioelectronics*, **2007**, 22, 2442-8	11.8	18
54	Biologically inspired nanofibers for use in translational bioanalytical systems. *Annual Review of Analytical Chemistry*, **2014**, 7, 23-42	12.5	17
53	Graphene-enhanced plasmonic nanohole arrays for environmental sensing in aqueous samples. *Beilstein Journal of Nanotechnology*, **2016**, 7, 1564-1573	3	17
52	Food Safety Analysis Enabled through Biological and Synthetic Materials: A Critical Review of Current Trends. *Analytical Chemistry*, **2019**, 91, 569-587	7.8	16
51	Elektrochemilumineszenz-Bioassays können Fluoreszenzassays mithilfe eines wasserlöslichen Luminolderivats übertreffen. *Angewandte Chemie*, **2018**, 130, 414-418	3.6	16
50	Photosensitiser functionalised luminescent upconverting nanoparticles for efficient photodynamic therapy of breast cancer cells. *Photochemical and Photobiological Sciences*, **2019**, 18, 98-109	4.2	15
49	High-Throughput Detection of Thiamine Using Periplasmic Binding Protein-Based Biorecognition. *Analytical Chemistry*, **2016**, 88, 8248-56	7.8	15
48	Dipstick Immunoassay Format for Atrazine and Terbuthylazine Analysis in Water Samples. *Journal of Agricultural and Food Chemistry*, **1998**, 46, 3847-3851	5.7	15
47	Laser-scribed graphene (LSG) as new electrode material for impedance-based cellular assays. *Sensors and Actuators B: Chemical*, **2020**, 321, 128443	8.5	14
46	Evaluation of internal standards in a competitive nucleic acid sequence-based amplification assay. *Analytical Chemistry*, **2007**, 79, 1386-92	7.8	14
45	Investigating non-specific binding to chemically engineered sensor surfaces using liposomes as models. *Analyst, The*, **2016**, 141, 5265-73	5	14

44	RNA internal standard synthesis by nucleic acid sequence-based amplification for competitive quantitative amplification reactions. *Analytical Chemistry*, **2007**, 79, 1548-54	7.8	13
43	Signal enhancement and low oxidation potentials for miniaturized ECL biosensors via N-butyldiethanolamine. *Analyst, The*, **2017**, 142, 2469-2474	5	12
42	Superior performance of liposomes over enzymatic amplification in a high-throughput assay for myoglobin in human serum. *Analytical and Bioanalytical Chemistry*, **2013**, 405, 4017-26	4.4	12
41	Fluorescently labeled liposomes for monitoring cholera toxin binding to epithelial cells. *Analytical Biochemistry*, **2008**, 380, 59-67	3.1	12
40	Printable 3D Carbon Nanofiber Networks with Embedded Metal Nanocatalysts. *ACS Applied Materials & Interfaces*, **2020**, 12, 39533-39540	9.5	12
39	Liposome-Enhanced Lateral-Flow Assays for Clinical Analyses. *Methods in Molecular Biology*, **2017**, 1571, 407-434	1.4	11
38	Periplasmic binding protein-based detection of maltose using liposomes: a new class of biorecognition elements in competitive assays. *Analytical Chemistry*, **2013**, 85, 2770-8	7.8	11
37	Improving ruthenium-based ECL through nonionic surfactants and tertiary amines. *Analyst, The*, **2017**, 142, 2648-2653	5	9
36	Embedded nanolamps in electrospun nanofibers enabling online monitoring and ratiometric measurements. *Journal of Materials Chemistry C*, **2017**, 5, 9712-9720	7.1	9
35	Engineering liposomes as detection reagents for CD4+ T-cells. *Analytical Methods*, **2012**, 4, 3948	3.2	9
34	Integrated microfluidic preconcentrator and immunobiosensor. *Microfluidics and Nanofluidics*, **2011**, 11, 537-544	2.8	9
33	Biopatterning for label-free detection. *Colloids and Surfaces B: Biointerfaces*, **2010**, 76, 375-80	6	9
32	Liposome-enhanced lateral-flow assays for the sandwich-hybridization detection of RNA. *Methods in Molecular Biology*, **2009**, 504, 185-215	1.4	9
31	Passive Mixing Capabilities of Micro- and Nanofibres When Used in Microfluidic Systems. *Sensors*, **2016**, 16,	3.8	9
30	A Novel Three-Electrode System Fabricated on Polymethyl Methacrylate for On-Chip Electrochemical Detection. *Electroanalysis*, **2012**, 24, 1903-1908	3	8
29	Synthesis of a liposome incorporated 1-carboxyalkylxanthine-phospholipid conjugate and its recognition by an RNA aptamer. *Talanta*, **2007**, 71, 365-72	6.2	8
28	Substrate-Independent Laser-Induced Graphene Electrodes for Microfluidic Electroanalytical Systems. *ACS Applied Nano Materials*, **2021**, 4, 3114-3121	5.6	8
27	Shedding Light on the Diversity of Surfactant Interactions with Luminol Electrochemiluminescence for Bioanalysis. *Analytical Chemistry*, **2019**, 91, 13080-13087	7.8	7

26	Process-property correlations in laser-induced graphene electrodes for electrochemical sensing. *Mikrochimica Acta*, **2021**, 188, 159	5.8	7
25	Incorporation of Biotin into PLA Nanofibers via Suspension and Dissolution in the Electrospinning Dope. *Journal of Biobased Materials and Bioenergy*, **2007**, 1, 220-228	1.4	6
24	Luminescence properties of dilute bismide systems. *Journal of Luminescence*, **2014**, 154, 95-98	3.8	5
23	Nanocontainer in der Analytik. *Angewandte Chemie*, **2019**, 131, 12970-12992	3.6	5
22	Detection of small molecules with surface plasmon resonance by synergistic plasmonic effects of nanostructured surfaces and graphene **2017**,		4
21	A Robust strategy enabling addressable porous 3D carbon-based functional nanomaterials in miniaturized systems. *Nanoscale*, **2019**, 11, 3674-3680	7.7	4
20	Magnetosomes for bioassays by merging fluorescent liposomes and magnetic nanoparticles: encapsulation and bilayer insertion strategies. *Analytical and Bioanalytical Chemistry*, **2020**, 412, 6295-6305	4.4	4
19	An efficient post-doping strategy creating electrospun conductive nanofibers with multi-functionalities for biomedical applications. *Journal of Materials Chemistry C*, **2019**, 7, 9316-9325	7.1	4
18	KAUSTat: A Wireless, Wearable, Open-Source Potentiostat for Electrochemical Measurements **2019** ,		4
17	Ag nanoparticles outperform Au nanoparticles for the use as label in electrochemical point-of-care sensors. *Analytical and Bioanalytical Chemistry*, **2021**, 1	4.4	4
16	Nanoscale optofluidic sensor arrays for Dengue virus detection **2007**,		3
15	Chapter 6 Bioanalytical microsystems: technology and applications. *Comprehensive Analytical Chemistry*, **2005**, 251-284	1.9	3
14	Dipsticks with Reflectometric Readout of an NIR Dye for Determination of Biogenic Amines. *Chemosensors*, **2020**, 8, 99	4	3
13	A Family Affair: Addressing the Challenges of Factor H and the Related Proteins. *Frontiers in Immunology*, **2021**, 12, 660194	8.4	3
12	Tethering functionality to lipid interfaces by a fast, simple and controllable post synthesis method. *Colloids and Surfaces B: Biointerfaces*, **2019**, 181, 325-332	6	2
11	Cationic liposomes for generic signal amplification strategies in bioassays. *Analytical and Bioanalytical Chemistry*, **2020**, 412, 3383-3393	4.4	2
10	Mikrofluidische Isolierung von Nukleins□uren. *Angewandte Chemie*, **2014**, 126, 14208-14222	3.6	2
9	Cytocompatibility of Mats Prepared from Different Electrospun Polymer Nanofibers.. *ACS Applied Bio Materials*, **2020**, 3, 4912-4921	4.1	2

8	Microfluidic-enabled magnetic labelling of nanovesicles for bioanalytical applications. *Analyst, The*, **2021**, 146, 997-1003	5	2
7	980 nm and 808 nm excitable upconversion nanoparticles for the detection of enzyme related reactions **2017**,		1
6	Frontispiz: Elektrochemilumineszenz-Bioassays können Fluoreszenzassays mithilfe eines wasserlöslichen Luminolderivats übertreffen. *Angewandte Chemie*, **2018**, 130,	3.6	1
5	Highly sensitive interleukin 6 detection by employing commercially ready liposomes in an LFA format. *Analytical and Bioanalytical Chemistry*, **2021**, 1	4.4	1
4	Next generation luminol derivative as powerful benchmark probe for chemiluminescence assays. *Analytica Chimica Acta*, **2021**, 1188, 339161	6.6	1
3	Dry-reagent microfluidic biosensor for simple detection of NT-proBNP via Ag nanoparticles.. *Analytica Chimica Acta*, **2022**, 1191, 339375	6.6	0
2	Polypyrrole-palladium nanocomposite as a high-efficiency transducer for thrombin detection with liposomes as a label. *Analytical and Bioanalytical Chemistry*, **2021**, 1	4.4	0
1	Microfluidic flow-injection aptamer-based chemiluminescence platform for sulfadimethoxine detection.. *Mikrochimica Acta*, **2022**, 189, 117	5.8	0