Antje Baeumner

List of Publications by Year
in descending order

146 papers	7,149 citations	50276 46 h-index	62596 80 g-index
150 all docs	150 docs citations	150 times ranked	8468 citing authors

#	Article	IF	Citations
1	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.	47.7	436
2	Miniaturized isothermal nucleic acid amplification, a review. Lab on A Chip, 2011, 11, 1420.	6.0	359
3	A MXeneâ€Based Wearable Biosensor System for Highâ€Performance In Vitro Perspiration Analysis. Small, 2019, 15, e1901190.	10.0	280
4	Biosensors for environmental pollutants and food contaminants. Analytical and Bioanalytical Chemistry, 2003, 377, 434-445.	3.7	212
5	A Megatrend Challenging Analytical Chemistry: Biosensor and Chemosensor Concepts Ready for the Internet of Things. Chemical Reviews, 2019, 119, 7996-8027.	47.7	197
6	RNA biosensor for the rapid detection of viable Escherichia coli in drinking water. Biosensors and Bioelectronics, 2003, 18, 405-413.	10.1	178
7	Electrospun polylactic acid nanofiber membranes as substrates for biosensor assemblies. Journal of Membrane Science, 2006, 279, 354-363.	8.2	166
8	Particle-Size-Dependent FÃ¶rster Resonance Energy Transfer from Upconversion Nanoparticles to Organic Dyes. Analytical Chemistry, 2017, 89, 4868-4874.	6.5	161
9	Development of a microfluidic biosensor module for pathogen detection. Lab on A Chip, 2005, 5, 805.	6.0	154
10	Laser-Scribed Graphene Electrodes for Aptamer-Based Biosensing. ACS Sensors, 2017, 2, 616-620.	7.8	153
11	Analysis of liposomes. Talanta, 2006, 68, 1432-1441.	5.5	139
12	Liposomes in analyses. Talanta, 2006, 68, 1421-1431.	5.5	131
13	Trends and opportunities in food pathogen detection. Analytical and Bioanalytical Chemistry, 2008, 391, 451-4.	3.7	126
14	Biosensors to support sustainable agriculture and food safety. TrAC - Trends in Analytical Chemistry, 2020, 128, 115906.	11.4	122
15	Biosensor for Dengue Virus Detection:Â Sensitive, Rapid, and Serotype Specific. Analytical Chemistry, 2002, 74, 1442-1448.	6.5	118
16	Electrochemical microfluidic biosensor for the detection of nucleic acid sequences. Lab on A Chip, 2006, 6, 414.	6.0	115
17	Electrochemical microfluidic biosensor for nucleic acid detection with integrated minipotentiostat. Biosensors and Bioelectronics, 2006, 21, 2217-2223.	10.1	112
18	Electrochemiluminescence Bioassays with a Waterâ€Soluble Luminol Derivative Can Outperform Fluorescence Assays. Angewandte Chemie - International Edition, 2018, 57, 408-411.	13.8	109

#	Article	IF	Citations
19	Microfluidic Biosensor for the Serotype-Specific Detection of Dengue Virus RNA. Analytical Chemistry, 2005, 77, 7520-7527.	6.5	105
20	Ganglioside-Liposome Immunoassay for the Ultrasensitive Detection of Cholera Toxin. Analytical Chemistry, 2003, 75, 2256-2261.	6.5	103
21	A Universal Nucleic Acid Sequence Biosensor with Nanomolar Detection Limits. Analytical Chemistry, 2004, 76, 888-894.	6.5	101
22	Recent progress in the design of nanofiber-based biosensing devices. Lab on A Chip, 2012, 12, 2612.	6.0	99
23	Nanomaterials as versatile tools for signal amplification in (bio)analytical applications. TrAC - Trends in Analytical Chemistry, 2016, 79, 306-316.	11.4	97
24	Characterization and Optimization of Interdigitated Ultramicroelectrode Arrays as Electrochemical Biosensor Transducers. Electroanalysis, 2004, 16, 724-729.	2.9	96
25	Highly Sensitive and Specific Detection of Viable Escherichia coli in Drinking Water. Analytical Biochemistry, 2002, 303, 186-193.	2.4	92
26	Bacillus anthracis: toxicology, epidemiology and current rapid-detection methods. Analytical and Bioanalytical Chemistry, 2006, 384, 73-84.	3.7	89
27	A review of electrochemiluminescence (ECL) in and for microfluidic analytical devices. Analytical and Bioanalytical Chemistry, 2015, 407, 3911-3926.	3.7	87
28	A microfluidic biosensor based on nucleic acid sequence recognition. Analytical and Bioanalytical Chemistry, 2003, 376, 1062-1068.	3.7	83
29	PMMA biosensor for nucleic acids with integrated mixer and electrochemical detection. Biosensors and Bioelectronics, 2009, 24, 2428-2433.	10.1	83
30	Detection of Viable Oocysts ofCryptosporidiumparvumFollowing Nucleic Acid Sequence Based Amplification. Analytical Chemistry, 2001, 73, 1176-1180.	6.5	82
31	Biosensors for the detection of waterborne pathogens. Analytical and Bioanalytical Chemistry, 2012, 402, 117-127.	3.7	81
32	Laser-induced graphene interdigitated electrodes for label-free or nanolabel-enhanced highly sensitive capacitive aptamer-based biosensors. Biosensors and Bioelectronics, 2020, 164, 112272.	10.1	70
33	Multi-analyte single-membrane biosensor for the serotype-specific detection of Dengue virus. Analytical and Bioanalytical Chemistry, 2004, 380, 46-53.	3.7	68
34	Microfluidic Isolation of Nucleic Acids. Angewandte Chemie - International Edition, 2014, 53, 13988-14001.	13.8	68
35	Optimization of DNA-tagged dye-encapsulating liposomes for lateral-flow assays based on sandwich hybridization. Analytical and Bioanalytical Chemistry, 2006, 386, 1335-1343.	3.7	64
36	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.	5.2	64

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37	Biosensor for the specific detection of a single viable B.Âanthracis spore. Analytical and Bioanalytical Chemistry, 2003, 376, 319-327.	3.7	63
38	A generic sandwich-type biosensor with nanomolar detection limits. Analytical and Bioanalytical Chemistry, 2004, 378, 1587-1593.	3.7	60
39	Detection ofCryptosporidiumparvumUsing Oligonucleotide-Tagged Liposomes in a Competitive Assay Format. Analytical Chemistry, 2001, 73, 3162-3167.	6.5	59
40	Micro-total analysis system for virus detection: microfluidic pre-concentration coupled to liposome-based detection. Analytical and Bioanalytical Chemistry, 2012, 402, 315-323.	3.7	59
41	Aptamer lateral flow assays for rapid and sensitive detection of cholera toxin. Analyst, The, 2019, 144, 1840-1849.	3.5	57
42	On-chip spectrophotometry for bioanalysis using microring resonators. Biomedical Optics Express, 2011, 2, 271.	2.9	55
43	Thiamine Assaysâ€"Advances, Challenges, and Caveats. ChemistryOpen, 2017, 6, 178-191.	1.9	55
44	Human pathogenic Cryptosporidium species bioanalytical detection method with single oocyst detection capability. Analytical and Bioanalytical Chemistry, 2008, 391, 487-495.	3.7	53
45	Aptamer sandwich assays: human Î±-thrombin detection using liposome enhancement. Analytical and Bioanalytical Chemistry, 2010, 398, 2645-2654.	3.7	52
46	A rapid biosensor for viable B. anthracis spores. Analytical and Bioanalytical Chemistry, 2004, 380, 15-23.	3.7	50
47	Combining Electrochemical Sensors with Miniaturized Sample Preparation for Rapid Detection in Clinical Samples. Sensors, 2015, 15, 547-564.	3.8	47
48	Application of Ganglioside-Sensitized Liposomes in a Flow Injection Immunoanalytical System for the Determination of Cholera Toxin. Analytical Chemistry, 2007, 79, 246-250.	6.5	45
49	Nanocontainers for Analytical Applications. Angewandte Chemie - International Edition, 2019, 58, 12840-12860.	13.8	45
50	Development of a laser-induced cell lysis system. Analytical and Bioanalytical Chemistry, 2002, 374, 421-426.	3.7	42
51	Cholera toxin subunit B detection in microfluidic devices. Analytical and Bioanalytical Chemistry, 2009, 393, 177-186.	3.7	42
52	Isolation and Amplification of mRNA within a Simple Microfluidic Lab on a Chip. Analytical Chemistry, 2014, 86, 849-856.	6.5	42
53	Universal liposomes: preparation and usage for the detection of mRNA. Analytical and Bioanalytical Chemistry, 2008, 391, 1689-1702.	3.7	40
54	Developing new materials for paper-based diagnostics using electrospun nanofibers. Analytical and Bioanalytical Chemistry, 2014, 406, 3297-3304.	3.7	40

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55	Multi-channel PMMA microfluidic biosensor with integrated IDUAs for electrochemical detection. Analytical and Bioanalytical Chemistry, 2013, 405, 5965-5974.	3.7	39
56	Optimization of DNA-tagged liposomes for use in microtiter plate analyses. Analytical and Bioanalytical Chemistry, 2006, 386, 1613-1623.	3.7	38
57	Process-property correlations in laser-induced graphene electrodes for electrochemical sensing. Mikrochimica Acta, 2021, 188, 159.	5.0	38
58	Electrochemical multi-analyte point-of-care perspiration sensors using on-chip three-dimensional graphene electrodes. Analytical and Bioanalytical Chemistry, 2021, 413, 763-777.	3.7	37
59	Miniaturized bioanalytical systems: enhanced performance through liposomes. Current Opinion in Chemical Biology, 2012, 16, 444-452.	6.1	36
60	DNAâˆ'Oligonucleotide Encapsulating Liposomes as a Secondary Signal Amplification Means. Analytical Chemistry, 2007, 79, 1806-1815.	6.5	35
61	An embedded system for portable electrochemical detection. Sensors and Actuators B: Chemical, 2007, 123, 336-343.	7.8	35
62	Availability of biotin incorporated in electrospun PLA fibers for streptavidin binding. Polymer, 2007, 48, 6340-6347.	3.8	34
63	A photonic crystal based sensing scheme for acetylcholine and acetylcholinesterase inhibitors. Journal of Materials Chemistry B, 2015, 3, 2089-2095.	5.8	34
64	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.	3.7	34
65	Capture and Culturing of Living Cells on Microstructured DNA Substrates. Small, 2010, 6, 2162-2168.	10.0	33
66	Sequential Injection Analysis System for the Sandwich Hybridization-Based Detection of Nucleic Acids. Analytical Chemistry, 2006, 78, 1958-1966.	6.5	32
67	A biosensor assay for the detection of Mycobacterium avium subsp. paratuberculosis in fecal samples. Journal of Veterinary Science, 2009, 10, 35.	1.3	30
68	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.	2.0	28
69	Electrospun nanofibers for microfluidic analytical systems. Polymer, 2011, 52, 3413-3421.	3.8	27
70	Functionalized electrospun poly(vinyl alcohol) nanofibers for on-chip concentration of E. coli cells. Analytical and Bioanalytical Chemistry, 2016, 408, 1327-1334.	3.7	27
71	Food Safety Analysis Enabled through Biological and Synthetic Materials: A Critical Review of Current Trends. Analytical Chemistry, 2019, 91, 569-587.	6.5	27
72	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.	3.3	26

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73	Protein G-liposomal nanovesicles as universal reagents for immunoassays. Talanta, 2005, 67, 205-211.	5.5	26
74	PAMAM dendrimers: A multifunctional nanomaterial for ECL biosensors. Talanta, 2017, 168, 126-129.	5.5	26
75	Photosensitiser functionalised luminescent upconverting nanoparticles for efficient photodynamic therapy of breast cancer cells. Photochemical and Photobiological Sciences, 2019, 18, 98-109.	2.9	26
76	A Family Affair: Addressing the Challenges of Factor H and the Related Proteins. Frontiers in Immunology, 2021, 12, 660194.	4.8	26
77	Aptamer sandwich assays: label-free and fluorescence investigations of heterogeneous binding events. Analytical and Bioanalytical Chemistry, 2010, 398, 2635-2644.	3.7	25
78	Recirculating, passive micromixer with a novel sawtooth structure. Lab on A Chip, 2006, 6, 242-246.	6.0	24
79	Functionalized electrospun nanofibers as bioseparators in microfluidic systems. Lab on A Chip, 2012, 12, 1696.	6.0	24
80	Laser-scribed graphene (LSG) as new electrode material for impedance-based cellular assays. Sensors and Actuators B: Chemical, 2020, 321, 128443.	7.8	23
81	Biologically Inspired Nanofibers for Use in Translational Bioanalytical Systems. Annual Review of Analytical Chemistry, 2014, 7, 23-42.	5.4	22
82	Liposomes with High Refractive Index Encapsulants as Tunable Signal Amplification Tools in Surface Plasmon Resonance Spectroscopy. Analytical Chemistry, 2015, 87, 11157-11163.	6.5	22
83	Microfluidic biosensor for cholera toxin detection in fecal samples. Analytical and Bioanalytical Chemistry, 2015, 407, 727-736.	3.7	22
84	Substrate-Independent Laser-Induced Graphene Electrodes for Microfluidic Electroanalytical Systems. ACS Applied Nano Materials, 2021, 4, 3114-3121.	5.0	22
85	Enhancement of Heterogeneous Assays Using Fluorescent Magnetic Liposomes. Analytical Chemistry, 2014, 86, 6610-6616.	6.5	21
86	Investigating non-specific binding to chemically engineered sensor surfaces using liposomes as models. Analyst, The, 2016, 141, 5265-5273.	3.5	21
87	Printable 3D Carbon Nanofiber Networks with Embedded Metal Nanocatalysts. ACS Applied Materials & Interfaces, 2020, 12, 39533-39540.	8.0	21
88	Dipstick Immunoassay Format for Atrazine and Terbuthylazine Analysis in Water Samples. Journal of Agricultural and Food Chemistry, 1998, 46, 3847-3851.	5.2	19
89	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, 2442-2448.	10.1	19
90	Graphene-enhanced plasmonic nanohole arrays for environmental sensing in aqueous samples. Beilstein Journal of Nanotechnology, 2016, 7, 1564-1573.	2.8	19

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91	High-Throughput Detection of Thiamine Using Periplasmic Binding Protein-Based Biorecognition. Analytical Chemistry, 2016, 88, 8248-8256.	6.5	18
92	Ag nanoparticles outperform Au nanoparticles for the use as label in electrochemical point-of-care sensors. Analytical and Bioanalytical Chemistry, 2022, 414, 475-483.	3.7	18
93	Elektrochemilumineszenzâ€Bioassays kÃ¶nnen Fluoreszenzassays mithilfe eines wasserlÃ¶slichen Luminolderivats Ã¼bertreffen. Angewandte Chemie, 2018, 130, 414-418.	2.0	17
94	Signal enhancement and low oxidation potentials for miniaturized ECL biosensors via N-butyldiethanolamine. Analyst, The, 2017, 142, 2469-2474.	3.5	16
95	RNA Internal Standard Synthesis by Nucleic Acid Sequence-Based Amplification for Competitive Quantitative Amplification Reactions. Analytical Chemistry, 2007, 79, 1548-1554.	6.5	15
96	Superior performance of liposomes over enzymatic amplification in a high-throughput assay for myoglobin in human serum. Analytical and Bioanalytical Chemistry, 2013, 405, 4017-4026.	3.7	15
97	Evaluation of Internal Standards in a Competitive Nucleic Acid Sequence-Based Amplification Assay. Analytical Chemistry, 2007, 79, 1386-1392.	6.5	14
98	Passive Mixing Capabilities of Micro- and Nanofibres When Used in Microfluidic Systems. Sensors, 2016, 16, 1238.	3.8	14
99	Improving ruthenium-based ECL through nonionic surfactants and tertiary amines. Analyst, The, 2017, 142, 2648-2653.	3.5	14
100	Liposome-Enhanced Lateral-Flow Assays for Clinical Analyses. Methods in Molecular Biology, 2017, 1571, 407-434.	0.9	14
101	Fluorescently labeled liposomes for monitoring cholera toxin binding to epithelial cells. Analytical Biochemistry, 2008, 380, 59-67.	2.4	13
102	Periplasmic Binding Protein-Based Detection of Maltose Using Liposomes: A New Class of Biorecognition Elements in Competitive Assays. Analytical Chemistry, 2013, 85, 2770-2778.	6.5	13
103	Embedded nanolamps in electrospun nanofibers enabling online monitoring and ratiometric measurements. Journal of Materials Chemistry C, 2017, 5, 9712-9720.	5.5	13
104	Dry-reagent microfluidic biosensor for simple detection of NT-proBNP via Ag nanoparticles. Analytica Chimica Acta, 2022, 1191, 339375.	5.4	13
105	Biopatterning for label-free detection. Colloids and Surfaces B: Biointerfaces, 2010, 76, 375-380.	5.0	12
106	ABC Spotlight on Analytics 4.0. Analytical and Bioanalytical Chemistry, 2018, 410, 5095-5097.	3.7	12
107	Magnetosomes for bioassays by merging fluorescent liposomes and magnetic nanoparticles: encapsulation and bilayer insertion strategies. Analytical and Bioanalytical Chemistry, 2020, 412, 6295-6305.	3.7	12
108	Liposome-Enhanced Lateral-Flow Assays for the Sandwich-Hybridization Detection of RNA. Methods in Molecular Biology, 2009, 504, 185-215.	0.9	12

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109	A Novel Threeâ€Electrode System Fabricated on Polymethyl Methacrylate for Onâ€Chip Electrochemical Detection. Electroanalysis, 2012, 24, 1903-1908.	2.9	11
110	KAUSTat: A Wireless, Wearable, Open-Source Potentiostat for Electrochemical Measurements. , 2019, , .		11
111	Integrated microfluidic preconcentrator and immunobiosensor. Microfluidics and Nanofluidics, 2011, 11, 537-544.	2.2	10
112	A Robust strategy enabling addressable porous 3D carbon-based functional nanomaterials in miniaturized systems. Nanoscale, 2019, 11, 3674-3680.	5.6	10
113	Highly sensitive interleukin 6 detection by employing commercially ready liposomes in an LFA format. Analytical and Bioanalytical Chemistry, 2022, 414, 3231-3241.	3.7	10
114	Microfluidic flow-injection aptamer-based chemiluminescence platform for sulfadimethoxine detection. Mikrochimica Acta, 2022, 189, 117.	5.0	10
115	Synthesis of a liposome incorporated 1-carboxyalkylxanthine-phospholipid conjugate and its recognition by an RNA aptamer. Talanta, 2007, 71, 365-372.	5.5	9
116	Engineering liposomes as detection reagents for CD4+ T-cells. Analytical Methods, 2012, 4, 3948.	2.7	9
117	Luminescence properties of dilute bismide systems. Journal of Luminescence, 2014, 154, 95-98.	3.1	8
118	Shedding Light on the Diversity of Surfactant Interactions with Luminol Electrochemiluminescence for Bioanalysis. Analytical Chemistry, 2019, 91, 13080-13087.	6.5	8
119	Nanocontainer in der Analytik. Angewandte Chemie, 2019, 131, 12970-12992.	2.0	8
120	Cytocompatibility of Mats Prepared from Different Electrospun Polymer Nanofibers. ACS Applied Bio Materials, 2020, 3, 4912-4921.	4.6	8
121	Next generation luminol derivative as powerful benchmark probe for chemiluminescence assays. Analytica Chimica Acta, 2021, 1188, 339161.	5.4	8
122	Nanoscale optofluidic sensor arrays for Dengue virus detection. Proceedings of SPIE, 2007, , .	0.8	7
123	An efficient post-doping strategy creating electrospun conductive nanofibers with multi-functionalities for biomedical applications. Journal of Materials Chemistry C, 2019, 7, 9316-9325.	5.5	6
124	Cationic liposomes for generic signal amplification strategies in bioassays. Analytical and Bioanalytical Chemistry, 2020, 412, 3383-3393.	3.7	6
125	Microfluidic-enabled magnetic labelling of nanovesicles for bioanalytical applications. Analyst, The, 2021, 146, 997-1003.	3.5	6
126	Incorporation of Biotin into PLA Nanofibers via Suspension and Dissolution in the Electrospinning Dope. Journal of Biobased Materials and Bioenergy, 2007, 1, 220-228.	0.3	6

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127	Food pathogen and toxin detection. Analytical and Bioanalytical Chemistry, 2008, 391, 449-450.	3.7	5
128	Detection of small molecules with surface plasmon resonance by synergistic plasmonic effects of nanostructured surfaces and graphene. Proceedings of SPIE, 2017, , .	0.8	5
129	Tethering functionality to lipid interfaces by a fast, simple and controllable post synthesis method. Colloids and Surfaces B: Biointerfaces, 2019, 181, 325-332.	5.0	4
130	Dipsticks with Reflectometric Readout of an NIR Dye for Determination of Biogenic Amines. Chemosensors, 2020, 8, 99.	3.6	4
131	Polypyrrole-palladium nanocomposite as a high-efficiency transducer for thrombin detection with liposomes as a label. Analytical and Bioanalytical Chemistry, 2022, 414, 3205-3217.	3.7	4
132	Chapter 6 Bioanalytical microsystems: technology and applications. Comprehensive Analytical Chemistry, 2005, , 251-284.	1.3	3
133	Fiber-based platforms for bioanalytics. Analytical and Bioanalytical Chemistry, 2016, 408, 1281-1283.	3.7	3
134	Recent trends in (bio)analytical chemistry. Analytical and Bioanalytical Chemistry, 2021, 413, 5533-5534.	3.7	2
135	Focus on bioanalysis. Analytical and Bioanalytical Chemistry, 2010, 398, 2337-2339.	3.7	1
136	980 nm and 808 nm excitable upconversion nanoparticles for the detection of enzyme related reactions. Proceedings of SPIE, 2017, , .	0.8	1
137	Frontispiz: Elektrochemilumineszenzâ€Bioassays kÃ¶nnen Fluoreszenzassays mithilfe eines wasserlÃ¶slichen Luminolderivats Ã¼bertreffen. Angewandte Chemie, 2018, 130, .	2.0	1
138	Introducing three new ABC Editors. Analytical and Bioanalytical Chemistry, 2019, 411, 2471-2473.	3.7	1
139	Advances in direct optical detection. Analytical and Bioanalytical Chemistry, 2020, 412, 3263-3264.	3.7	1
140	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
141	Frontispiece: Electrochemiluminescence Bioassays with a Waterâ€Soluble Luminol Derivative Can Outperform Fluorescence Assays. Angewandte Chemie - International Edition, 2018, 57, .	13.8	0
142	Female role models in analytical chemistry: then, now, and in the future. Analytical and Bioanalytical Chemistry, 2020, 412, 5873-5874.	3.7	0
143	Multiplexed Immunoassays in Food Analysis. , 2008, , .		0
144	On-Chip Spectrophotometry for Bioanalysis Using Nanophotonic Devices. , 2010, , .		0

#	Article	IF	Citations
145	Promising Early-Career (Bio)analytical Researchers. Analytical and Bioanalytical Chemistry, 0, , .	3.7	0
146	In honor of Professor GÃ¼nter Gauglitz. Analytical and Bioanalytical Chemistry, 0, , .	3.7	0