Andreas Schwaighofer

List of Publications by Year
in descending order

56	1,201	430442 18	414034 32
papers	citations	h-index	g-index

56	56	56	1233
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Broadband laser-based mid-infrared spectroscopy employing a quantum cascade detector for milk protein analysis. Sensors and Actuators B: Chemical, 2022, 350, 130873.	4.0	19
2	Fatty Acid Determination in Human Milk Using Attenuated Total Reflection Infrared Spectroscopy and Solvent-Free Lipid Separation. Applied Spectroscopy, 2022, 76, 730-736.	1.2	4
3	Laser-based mid-infrared spectroscopy enables in-line detection of protein secondary structure from preparative liquid chromatography. , 2022, , .		0
4	QCLâ€“IR Spectroscopy for In-Line Monitoring of Proteins from Preparative Ion-Exchange Chromatography. Analytical Chemistry, 2022, 94, 5583-5590.	3.2	10
5	The next generation of mid-IR laser-based refractive index (dispersion) spectroscopy of liquid-phase analytes. , 2022, , .		2
6	Mesoporous Zirconia Coating for Sensing Applications Using Attenuated Total Reflection Fourier Transform Infrared (ATR FT-IR) Spectroscopy. Applied Spectroscopy, 2022, 76, 141-149.	1.2	7
7	Fatty Acid Prediction in Bovine Milk by Attenuated Total Reflection Infrared Spectroscopy after Solvent-Free Lipid Separation. Foods, 2021, 10, 1054.	1.9	5
8	Broadband laser-based mid-IR spectroscopy for analysis of proteins and monitoring of enzyme activity. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2021, 253, 119563.	2.0	22
9	Towards Broadband Mid-Infrared Fully Integrated Protein Sensor employing a Quantum Cascade Laser and Quantum Cascade Detector. , 2021, , .		0
10	Mid-IR Laser Spectroscopy for Protein Analysis in Aqueous Solution. , 2021, , .		0
11	A thermoelectrically stabilized aluminium acoustic trap combined with attenuated total reflection infrared spectroscopy for detection of Escherichia coli in water. Lab on A Chip, 2021, 21, 1811-1819.	3.1	2
12	Polarimetric Balanced Detection: Background-Free Mid-IR Evanescent Field Laser Spectroscopy for Low-Noise, Long-term Stable Chemical Sensing. ACS Sensors, 2021, 6, 35-42.	4.0	15
13	External Cavity Quantum Cascade Laser-Based Mid-Infrared Dispersion Spectroscopy for Qualitative and Quantitative Analysis of Liquid-Phase Samples. Applied Spectroscopy, 2020, 74, 452-459.	1.2	13
14	Resonant tunneling diodes strongly coupled to the cavity field. Applied Physics Letters, 2020, 116, .	1.5	7
15	Production of Active Recombinant Hyaluronidase Inclusion Bodies from Apis mellifera in E. coli Bl21(DE3) and characterization by FT-IR Spectroscopy. International Journal of Molecular Sciences, 2020, 21, 3881.	1.8	9
16	Quantum cascade laser-based infrared transmission spectroscopy of proteins in solution. , 2020, , 59-88.		13
17	The Next Generation of IR Spectroscopy: EC-QCL-Based Mid-IR Transmission Spectroscopy of Proteins with Balanced Detection. Analytical Chemistry, 2020, 92, 9901-9907.	3.2	55
18	Beyond Beer's Law: Why the Index of Refraction Depends (Almost) Linearly on Concentration. ChemPhysChem, 2020, 21, 707-711.	1.0	31

#	Article	IF	Citations
19	pH titration of Î²-lactoglobulin monitored by laser-based Mid-IR transmission spectroscopy coupled to chemometric analysis. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2020, 226, 117636.	2.0	19
20	FTIR spectroscopy as a novel analytical approach for investigation of glucose transport and glucose transport inhibition studies in transwell in vitro barrier models. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2020, 237, 118388.	2.0	1
21	Mid-IR refractive index sensor for detecting proteins employing an external cavity quantum cascade laser-based Mach-Zehnder interferometer. Optics Express, 2020, 28, 36632.	1.7	15
22	High-throughput quantitation of bovine milk proteins and discrimination of commercial milk types by external cavity-quantum cascade laser spectroscopy and chemometrics. Analyst, The, 2019, 144, 5571-5579.	1.7	18
23	An Acoustic Trap for Bead Injection Attenuated Total Reflection Infrared Spectroscopy. Analytical Chemistry, 2019, 91, 7672-7678.	3.2	8
24	Native Nano-electrospray Differential Mobility Analyzer (nES GEMMA) Enables Size Selection of Liposomal Nanocarriers Combined with Subsequent Direct Spectroscopic Analysis. Analytical Chemistry, 2019, 91, 3860-3868.	3.2	14
25	Fast quantification of bovine milk proteins employing external cavity-quantum cascade laser spectroscopy. Food Chemistry, 2018, 252, 22-27.	4.2	19
26	Recent advancements of EC-QCL based mid-IR transmission spectroscopy of proteins and application to analysis of bovine milk1. Biomedical Spectroscopy and Imaging, 2018, 7, 35-45.	1.2	11
27	Fine discrimination of volatile compounds by graphene-immobilized odorant-binding proteins. Sensors and Actuators B: Chemical, 2018, 256, 564-572.	4.0	41
28	Teaching an old pET new tricks: tuning of inclusion body formation and properties by a mixed feed system in E. coli. Applied Microbiology and Biotechnology, 2018, 102, 667-676.	1.7	40
29	In Situ IR Spectroscopy of Mesoporous Silica Films for Monitoring Adsorption Processes and Trace Analysis. ACS Applied Nano Materials, 2018, 1, 7083-7091.	2.4	28
30	Custom made inclusion bodies: impact of classical process parameters and physiological parameters on inclusion body quality attributes. Microbial Cell Factories, 2018, 17, 148.	1.9	47
31	Beyond Fourier Transform Infrared Spectroscopy: External Cavity Quantum Cascade Laser-Based Mid-infrared Transmission Spectroscopy of Proteins in the Amide I and Amide II Region. Analytical Chemistry, 2018, 90, 7072-7079.	3.2	69
32	Towards ultrasound enhanced mid-IR spectroscopy for sensing bacteria in aqueous solutions. , 2018, , .		1
33	A photothermal Mach-Zehnder interferometer for measuring caffeine and proteins in aqueous solutions using external cavity quantum cascade lasers. , 2018, , .		1
34	External cavity-quantum cascade laser (EC-QCL) spectroscopy for protein analysis in bovine milk. Analytica Chimica Acta, 2017, 963, 99-105.	2.6	22
35	Application of MCR-ALS to reveal intermediate conformations in the thermally induced Î±-Î² transition of poly-l-lysine monitored by FT-IR spectroscopy. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2017, 185, 304-309.	2.0	25
36	Quantum cascade lasers (QCLs) in biomedical spectroscopy. Chemical Society Reviews, 2017, 46, 5903-5924.	18.7	133

#	Article	IF	Citations
37	On the Identification of Rayon/Viscose as a Major Fraction of Microplastics in the Marine Environment: Discrimination between Natural and Manmade Cellulosic Fibers Using Fourier Transform Infrared Spectroscopy. Applied Spectroscopy, 2017, 71, 939-950.	1.2	117
38	EC-QCL mid-IR transmission spectroscopy for monitoring dynamic changes of protein secondary structure in aqueous solution on the example of Î²-aggregation in alcohol-denaturated Î±-chymotrypsin. Analytical and Bioanalytical Chemistry, 2016, 408, 3933-3941.	1.9	29
39	External cavity-quantum cascade laser infrared spectroscopy for secondary structure analysis of proteins at low concentrations. Scientific Reports, 2016, 6, 33556.	1.6	57
40	Kinetics of cytochrome c oxidase from R. sphaeroides initiated by direct electron transfer followed by tr-SEIRAS. Bioelectrochemistry, 2016, 112, 1-8.	2.4	13
41	External-Cavity Quantum Cascade Laser Spectroscopy for Mid-IR Transmission Measurements of Proteins in Aqueous Solution. Analytical Chemistry, 2015, 87, 6980-6987.	3.2	80
42	Method for Time-Resolved Monitoring of a Solid State Biological Film Using Photothermal Infrared Nanoscopy on the Example of Poly-<scp>l</scp>-lysine. Analytical Chemistry, 2015, 87, 4415-4420.	3.2	16
43	Mid-IR Quantum Cascade Lasers as an Enabling Technology for Analytical Chemistry. , 2015, , .		0
44	Insights into structural features determining odorant affinities to honey bee odorant binding protein 14. Biochemical and Biophysical Research Communications, 2014, 446, 1042-1046.	1.0	21
45	Experimental Study on Localized Surface Plasmon Mode Hybridization in the Near and Mid Infrared. Plasmonics, 2014, 9, 707-713.	1.8	1
46	Double-layered nanoparticle stacks for surface enhanced infrared absorption spectroscopy. Nanoscale, 2014, 6, 127-131.	2.8	27
47	Honey bee odorant-binding protein 14: effects on thermal stability upon odorant binding revealed by FT-IR spectroscopy and CD measurements. European Biophysics Journal, 2014, 43, 105-112.	1.2	19
48	Integrative and comparative analysis of coiled-coil based marine snail egg cases â€“ a model for biomimetic elastomers. Biomaterials Science, 2014, 2, 710.	2.6	7
49	Structural Proteins from Whelk Egg Capsule with Long Range Elasticity Associated with a Solid-State Phase Transition. Biomacromolecules, 2014, 15, 30-42.	2.6	17
50	Phase-Sensitive Detection in Modulation Excitation Spectroscopy Applied to Potential Induced Electron Transfer in Cytochrome c Oxidase. Applied Spectroscopy, 2014, 68, 5-13.	1.2	11
51	Surface-Enhanced Infrared Absorption Spectroscopy (SEIRAS) of Light-Activated Photosynthetic Reaction Centers from Rhodobacter sphaeroides Reconstituted in a Biomimetic Membrane System. Journal of Physical Chemistry C, 2013, 117, 16357-16363.	1.5	18
52	Time-Resolved Surface-Enhanced IR-Absorption Spectroscopy of Direct Electron Transfer to Cytochrome c Oxidase from R.Âsphaeroides. Biophysical Journal, 2013, 105, 2706-2713.	0.2	17
53	A Kinetic Model of Proton Transport in a Multi-Redox Centre Protein: Cytochrome c Oxidase. Progress in Reaction Kinetics and Mechanism, 2013, 38, 32-47.	1.1	4
54	Surface-enhanced Raman spectroscopy for biomedical diagnostics and imaging. Biomedical Spectroscopy and Imaging, 2013, 2, 51-71.	1.2	10

#	Article	IF	Citations
55	Double-layered nanoparticle stacks for spectro-electrochemical applications. Optics Letters, 2012, 37, 3603.	1.7	6
56	Determination of the xanthate group distribution on viscose by liquid-state 1H NMR spectroscopy. Analytical and Bioanalytical Chemistry, 2011, 400, 2449-2456.	1.9	5