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	Quantum cascade lasers (QCLs) in biomedical spectroscopy. Chemical Society Reviews, 2017, 46, 5903-5924.	18.7	133
2	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
3	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
4	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
5	External cavity-quantum cascade laser infrared spectroscopy for secondary structure analysis of proteins at low concentrations. Scientific Reports, 2016, 6, 33556.	1.6	57
6	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
7	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
8	Fine discrimination of volatile compounds by graphene-immobilized odorant-binding proteins. Sensors and Actuators B: Chemical, 2018, 256, 564-572.	4.0	41
9	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
10	Beyond Beer's Law: Why the Index of Refraction Depends (Almost) Linearly on Concentration. ChemPhysChem, 2020, 21, 707-711.	1.0	31
11	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 Îł-chymotrypsin. Analytical and Bioanalytical Chemistry, 2016, 408, 3933-3941.	1.9	29
12	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
13	Double-layered nanoparticle stacks for surface enhanced infrared absorption spectroscopy. Nanoscale, 2014, 6, 127-131.	2.8	27
14	Application of MCR-ALS to reveal intermediate conformations in the thermally induced Îł-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
15	External cavity-quantum cascade laser (EC-QCL) spectroscopy for protein analysis in bovine milk. Analytica Chimica Acta, 2017, 963, 99-105.	2.6	22
16	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
17	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
18	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

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19	Fast quantification of bovine milk proteins employing external cavity-quantum cascade laser spectroscopy. Food Chemistry, 2018, 252, 22-27.	4.2	19
20	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
21	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
22	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
23	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
24	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
25	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
26	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
27	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
28	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
29	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
30	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
31	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
32	Quantum cascade laser-based infrared transmission spectroscopy of proteins in solution. , 2020, , 59-88.		13
33	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
34	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
35	Surface-enhanced Raman spectroscopy for biomedical diagnostics and imaging. Biomedical Spectroscopy and Imaging, 2013, 2, 51-71.	1.2	10
36	QCLâ€“IR Spectroscopy for In-Line Monitoring of Proteins from Preparative Ion-Exchange Chromatography. Analytical Chemistry, 2022, 94, 5583-5590.	3.2	10

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37	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
38	An Acoustic Trap for Bead Injection Attenuated Total Reflection Infrared Spectroscopy. Analytical Chemistry, 2019, 91, 7672-7678.	3.2	8
39	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
40	Resonant tunneling diodes strongly coupled to the cavity field. Applied Physics Letters, 2020, 116, .	1.5	7
41	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
42	Double-layered nanoparticle stacks for spectro-electrochemical applications. Optics Letters, 2012, 37, 3603.	1.7	6
43	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
44	Fatty Acid Prediction in Bovine Milk by Attenuated Total Reflection Infrared Spectroscopy after Solvent-Free Lipid Separation. Foods, 2021, 10, 1054.	1.9	5
45	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
46	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
47	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
48	The next generation of mid-IR laser-based refractive index (dispersion) spectroscopy of liquid-phase analytes. , 2022, , .		2
49	Experimental Study on Localized Surface Plasmon Mode Hybridization in the Near and Mid Infrared. Plasmonics, 2014, 9, 707-713.	1.8	1
50	Towards ultrasound enhanced mid-IR spectroscopy for sensing bacteria in aqueous solutions. , 2018, , .		1
51	A photothermal Mach-Zehnder interferometer for measuring caffeine and proteins in aqueous solutions using external cavity quantum cascade lasers. , 2018, , .		1
52	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
53	Mid-IR Quantum Cascade Lasers as an Enabling Technology for Analytical Chemistry. , 2015, , .		0
54	Towards Broadband Mid-Infrared Fully Integrated Protein Sensor employing a Quantum Cascade Laser and Quantum Cascade Detector. , 2021, , .		0

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55	Mid-IR Laser Spectroscopy for Protein Analysis in Aqueous Solution. , 2021, , .		0
56	Laser-based mid-infrared spectroscopy enables in-line detection of protein secondary structure from preparative liquid chromatography. , 2022, , .		0