Markus Brandstetter

List of Publications by Year
in descending order

361413

414414

47	1,061	20	32
papers	citations	h-index	g-index
49	49	49	893
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.	38.1	133
2	External-Cavity Quantum Cascade Laser Spectroscopy for Mid-IR Transmission Measurements of Proteins in Aqueous Solution. Analytical Chemistry, 2015, 87, 6980-6987.	6.5	80
3	Direct determination of glucose, lactate and triglycerides in blood serum by a tunable quantum cascade laser-based mid-IR sensor. Applied Physics B: Lasers and Optics, 2013, 110, 233-239.	2.2	73
4	Tunable external cavity quantum cascade laser for the simultaneous determination of glucose and lactate in aqueous phase. Analyst, The, 2010, 135, 3260.	3.5	60
5	Reagent-free monitoring of multiple clinically relevant parameters in human blood plasma using a mid-infrared quantum cascade laser based sensor system. Analyst, The, 2013, 138, 4022.	3.5	53
6	Diffraction limited mid-infrared reflectance microspectroscopy with a supercontinuum laser. Optics Express, 2018, 26, 30644.	3.4	42
7	Tunable mid-infrared lasers in physical chemosensors towards the detection of physiologically relevant parameters in biofluids. Sensors and Actuators B: Chemical, 2012, 170, 189-195.	7.8	40
8	Quartz-enhanced photoacoustic spectroscopy-based sensor system for sulfur dioxide detection using a CW DFB-QCL. Applied Physics B: Lasers and Optics, 2014, 117, 113-120.	2.2	39
9	Mid-Infrared Standoff Spectroscopy Using a Supercontinuum Laser with Compact Fabryâ€“PÃ©rot Filter Spectrometers. Applied Spectroscopy, 2018, 72, 634-642.	2.2	38
10	Advances in mid-infrared spectroscopy enabled by supercontinuum laser sources. Optics Express, 2022, 30, 5222.	3.4	36
11	Sensitivity-Enhanced Fourier Transform Mid-Infrared Spectroscopy Using a Supercontinuum Laser Source. Applied Spectroscopy, 2020, 74, 485-493.	2.2	35
12	Mid-infrared Fourier-domain optical coherence tomography with a pyroelectric linear array. Optics Express, 2018, 26, 33428.	3.4	35
13	Nonlinear model predictive control for a heating and cooling system of a low-energy office building. Energy and Buildings, 2016, 125, 86-98.	6.7	34
14	Enhanced mid-infrared multi-bounce ATR spectroscopy for online detection of hydrogen peroxide using a supercontinuum laser. Optics Express, 2018, 26, 12169.	3.4	33
15	Ultrasound-Enhanced Attenuated Total Reflection Mid-infrared Spectroscopy In-Line Probe: Acquisition of Cell Spectra in a Bioreactor. Analytical Chemistry, 2015, 87, 2314-2320.	6.5	32
16	Broadband near-infrared hyperspectral single pixel imaging for chemical characterization. Optics Express, 2019, 27, 12666.	3.4	25
17	High performance liquid chromatography with mid-infrared detection based on a broadly tunable quantum cascade laser. Analyst, The, 2014, 139, 2057.	3.5	24
18	Remote mid-infrared photoacoustic spectroscopy with a quantum cascade laser. Optics Letters, 2015, 40, 3476.	3.3	23

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19	Calibration model maintenance in melamine resin production: Integrating drift detection, smart sample selection and model adaptation. Analytica Chimica Acta, 2018, 1013, 1-12.	5.4	23
20	Observation of particles manipulated by ultrasound in close proximity to a cone-shaped infrared spectroscopy probe. Ultrasonics, 2010, 50, 240-246.	3.9	20
21	Time-resolved spectral characterization of ring cavity surface emitting and ridge-type distributed feedback quantum cascade lasers by step-scan FT-IR spectroscopy. Optics Express, 2014, 22, 2656.	3.4	20
22	Sub-second quantum cascade laser based infrared spectroscopic ellipsometry. Optics Letters, 2019, 44, 3426.	3.3	19
23	Dual-band infrared optical coherence tomography using a single supercontinuum source. Optics Express, 2020, 28, 7858.	3.4	19
24	Probeless non-invasive near-infrared spectroscopic bioprocess monitoring using microspectrometer technology. Analytical and Bioanalytical Chemistry, 2020, 412, 2103-2109.	3.7	18
25	Correlative infrared optical coherence tomography and hyperspectral chemical imaging. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2020, 37, B19.	1.5	15
26	Workflow for multi-analyte bioprocess monitoring demonstrated on inline NIR spectroscopy of P. chrysogenum fermentation. Analytical and Bioanalytical Chemistry, 2017, 409, 797-805.	3.7	12
27	Towards Real-Time In-Situ Mid-Infrared Spectroscopic Ellipsometry in Polymer Processing. Polymers, 2022, 14, 7.	4.5	11
28	Ultrasonic Manipulation of Yeast Cells in Suspension for Absorption Spectroscopy with an Immersible Mid-Infrared Fiberoptic Probe. Ultrasound in Medicine and Biology, 2013, 39, 1094-1101.	1.5	10
29	Improved quantification of important beer quality parameters based on nonlinear calibration methods applied to FT-MIR spectra. Analytical and Bioanalytical Chemistry, 2017, 409, 841-857.	3.7	10
30	Tunable Mid-IR lasers: A new avenue to robust and versatile physical chemosensors. Procedia Engineering, 2010, 5, 1001-1004.	1.2	7
31	Spectral-Coding-Based Compressive Single-Pixel NIR Spectroscopy in the Sub-Millisecond Regime. Sensors, 2021, 21, 5563.	3.8	7
32	Mid-infrared DMD-based spectral-coding spectroscopy with a supercontinuum laser source. Optics Express, 2022, 30, 6440.	3.4	7
33	Enhanced mid-infrared multi-bounce ATR spectroscopy for online detection of hydrogen peroxide using a supercontinuum laser. Optics Express, 2018, 26, 12169-12179.	3.4	7
34	Inline biofilm monitoring based on near-infrared spectroscopy with ultracompact spectrometer technology. NIR News, 2020, 31, 9-13.	0.3	5
35	QCL-based mid-infrared hyperspectral imaging of multilayer polymer oxygen barrier-films. Polymer Testing, 2021, 98, 107190.	4.8	3
36	Application of supercontinuum radiation for mid-infrared spectroscopy. Proceedings of SPIE, 2016, , .	0.8	2

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37	Additive Partial Least Squares for efficient modelling of independent variance sources demonstrated on practical case studies. Analytica Chimica Acta, 2018, 1007, 10-15.	5.4	2
38	Application of a Novel Low-Cost Hyperspectral Imaging Setup Operating in the Mid-Infrared Region. Proceedings (mdpi), 2018, 2, .	0.2	2
39	Extension of a Particle Filter for Bioprocess State Estimation using Invasive and Non-Invasive IR Measurements. Computer Aided Chemical Engineering, 2019, , 1417-1422.	0.5	2
40	Multimodal mid-infrared optical coherence tomography and spectroscopy for non-destructive testing and art diagnosis. , 2019, , .		2
41	A broadband grating-coupled silicon nitride waveguide for the mid-IR: characterization and sensitive measurements using an external cavity quantum cascade laser. Applied Physics B: Lasers and Optics, 2014, 116, 325-332.	2.2	1
42	A Localized Analysis of the Sterilization Process by Direct Steam Monitoring. IEEE Access, 2017, 5, 19961-19970.	4.2	1
43	High-brightness supercontinuum sources: prospects for mid-infrared laser spectroscopy. , 2022, , .		1
44	Mid-infrared rib waveguide absorption sensors based on Si. , 2013, , .		0
45	Advances in Mid-Infrared Hyperspectral Imaging Enabled by Supercontinuum Lasers. , 2019, , .		0
46	Supercontinuum sources for multimodal MIR-OCT imaging. , 2019, , .		0
47	Industrial Application Examples of Miniature and Robust MEMS-based Spectrometers. , 2020, , .		0