Andreas Tortschanoff

List of Publications by Year
in descending order

112	1,151	430442	454577
papers	citations	18 h-index	30 g-index

112	112	112	1234
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Temperature effects on the spectral properties of colloidal CdSe nanodots, nanorods, and tetrapods. Applied Physics Letters, 2007, 90, 093104.	1.5	139
2	Mid-infrared absorption gas sensing using a silicon strip waveguide. Sensors and Actuators A: Physical, 2018, 277, 117-123.	2.0	67
3	Photonics in the Mid-Infrared: Challenges in Single-Chip Integration and Absorption Sensing. IEEE Journal of Selected Topics in Quantum Electronics, 2017, 23, 452-463.	1.9	57
4	Subpicosecond near-infrared fluorescence upconversion study of relaxation processes in PbSe quantum dots. Physical Review B, 2007, 76, .	1.1	45
5	Characterization of Evanescent Field Gas Sensor Structures Based on Silicon Photonics. IEEE Photonics Journal, 2018, 10, 1-14.	1.0	42
6	Studying vibrational wavepacket dynamics by measuring fluorescence interference fluctuations. Journal of Chemical Physics, 2000, 112, 5060-5069.	1.2	39
7	A model for the multi-exponential excited-state decay of CdSe nanocrystals. Chemical Physics, 2009, 357, 96-101.	0.9	37
8	Sensitivity of Flavin Fluorescence Dynamics in Neuronal Nitric Oxide Synthase to Cofactor-Induced Conformational Changes and Dimerization. Biochemistry, 1998, 37, 17545-17553.	1.2	36
9	Ultrafast UV photon echo peak shift and fluorescence up conversion studies of non-polar solvation dynamics. Chemical Physics, 2008, 350, 104-110.	0.9	32
10	Femtosecond excitation tuning and site energy memory of population transfer in poly(p-phenylenevinylene): Gated luminescence experiments and simulation. Journal of Chemical Physics, 2002, 117, 10877-10887.	1.2	31
11	Position encoding and phase control of resonant MOEMS mirrors. Sensors and Actuators A: Physical, 2010, 162, 235-240.	2.0	31
12	Relaxation Dynamics of Tryptophan in Water: A UV Fluorescence Up-Conversion and Molecular Dynamics Study. Journal of Physical Chemistry A, 2010, 114, 9034-9042.	1.1	31
13	Correlation of femtosecond wave packets and fluorescence interference in a conjugated polymer: Towards the measurement of site homogeneous dephasing. Journal of Chemical Physics, 2004, 120, 9870-9885.	1.2	30
14	Molecular quantum dynamics in a thermal system: Fractional wave packet revivals probed by random-phase fluorescence interferometry. Journal of Chemical Physics, 2001, 114, 9901-9910.	1.2	27
15	Photon echo peak shift experiments in the UV: p-terphenyl in different solvents. Journal of Molecular Liquids, 2008, 141, 118-123.	2.3	23
16	A CMOS Compatible Pyroelectric Mid-Infrared Detector Based on Aluminium Nitride. Sensors, 2019, 19, 2513.	2.1	20
17	Coherence from fluorescence correlations: Oscillatory femtosecond fluorescence in pentacene/p-terphenyl. Journal of Chemical Physics, 1999, 110, 4493-4504.	1.2	19
18	Multiple quantum coherences in liquid state NMR and nonlinear optics: collective vs local origin. Chemical Physics Letters, 2002, 357, 327-335.	1.2	19

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19	Self-propagating reactive Al/Ni nanocomposites for bonding applications. Micro and Nano Systems Letters, 2017, 5, .	1.7	17
20	Ultrafast optical dynamics of spiro-compounds. Synthetic Metals, 2001, 121, 1497-1498.	2.1	16
21	Pumpâ˜Probe Simulation Study of the Two-Exciton Manifold of Dendrimers. Journal of Physical Chemistry A, 2002, 106, 7521-7529.	1.1	15
22	Modelling of aqueous solvation of eosin Y at the rutile TiO2(110)/water interface. Chemical Physics Letters, 2006, 430, 375-379.	1.2	15
23	Improved MOEMS-based ultra-rapid Fourier transform infrared spectrometer. Proceedings of SPIE, 2009, , .	0.8	15
24	Ultrafast nonresonant response of TiO2 nanostructured films. Journal of Chemical Physics, 2008, 128, 244718.	1.2	14
25	Optimization of Resonant PZT MEMS Mirrors by Inverse Design and Electrode Segmentation. Journal of Microelectromechanical Systems, 2021, 30, 216-223.	1.7	14
26	MOEMS-Based Scanning Light Barrier. Procedia Chemistry, 2009, 1, 1299-1302.	0.7	13
27	Probing phase relaxation by measuring fluorescence interference: polarization beating and electronâ€“phonon coupling in conjugated polymers. Journal of Luminescence, 2004, 108, 205-209.	1.5	12
28	A compact and portable IR analyzer: progress of a MOEMS FT-IR system for mid-IR sensing. , 2011, , .		12
29	Spectroscopic Gas Sensing Using a Silicon Slab Waveguide. Procedia Engineering, 2016, 168, 1265-1269.	1.2	12
30	Electronic coupling and coherences in disordered polymers: Femtosecond 2D-photon echo correlation spectroscopy, signatures of an excitonic two-segmental site system: A theoretical study. Journal of Chemical Physics, 2002, 116, 8218-8231.	1.2	11
31	Three pulse UV photon echo studies of molecules in solution: Effect of the chirp. Journal of Chemical Physics, 2010, 133, 064506.	1.2	10
32	Ultraviolet transient absorption, transient grating and photon echo studies of aqueous tryptophan. Chemical Physics, 2013, 422, 47-52.	0.9	10
33	Taming parasitic thermal emission by Tamm plasmon polaritons for the mid-infrared. Journal of the Optical Society of America B: Optical Physics, 2018, 35, 1490.	0.9	10
34	Liquid dynamics in ZrO2 nanoporous films. Chemical Physics, 2007, 341, 11-20.	0.9	9
35	Aluminium, gold-tin and titanium-tungsten alloys for mid-infrared plasmonic gratings. Optical Materials Express, 2021, 11, 1058.	1.6	9
36	Designing Mid-Infrared Gold-Based Plasmonic Slot Waveguides for CO2-Sensing Applications. Sensors, 2021, 21, 2669.	2.1	9

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37	Compact High-Speed Spectrometers Based on MEMS Devices with Large Amplitude In-Plane Actuators. Procedia Chemistry, 2009, 1, 556-559.	0.7	8
38	Development, characterization and application of compact spectrometers based on MEMS with in-plane capacitive drives. , 2014, , .		8
39	The convolution problem in COIN spectroscopy. Chemical Physics, 1999, 244, 89-100.	0.9	7
40	Collective many-body resonances in condensed phase nonlinear spectroscopy. Journal of Chemical Physics, 2002, 116, 5007.	1.2	7
41	Femtosecond coherence in poly(p-Phenylene- vinylene) ? polarization beatings and phase-relaxation probed by wavepacket fluorescence interferometry. Applied Physics A: Materials Science and Processing, 2004, 78, 497-503.	1.1	7
42	Position encoding and phase control of resonant MOEMS-mirros. Procedia Chemistry, 2009, 1, 1315-1318.	0.7	7
43	Aqueous Solvation Dynamics at Metal Oxide Surfaces. Journal of Physical Chemistry B, 2006, 110, 7835-7844.	1.2	6
44	Optical position encoding and phase control of an electrostatically driven two-dimensional MOEMS scanner at two resonant modes. Journal of Micro/ Nanolithography, MEMS, and MOEMS, 2011, 10, 033006.	1.0	6
45	Numerical Investigations of Infrared Slot Waveguides for Gas Sensing. Proceedings (mdpi), 2018, 2, 799.	0.2	6
46	Highly Selective CMOS-Compatible Mid-Infrared Thermal Emitter/Detector Slab Design Using Optical Tamm-States. Materials, 2019, 12, 929.	1.3	6
47	Resonant PZT MEMS Mirror with Segmented Electrodes. , 2020, , .		6
48	Femtosecond pumpâ€“probe spectroscopy of the dendrimeric nanostar. Journal of Luminescence, 2001, 94-95, 569-573.	1.5	5
49	Position encoding and closed loop control of MOEMS translatory actuators. , 2009, , .		5
50	Improved MEMS based FT-IR spectrometer. , 2009, , .		5
51	Advances in performance and miniaturization of a FT-IR spectrometer system based on a large stroke MOEMS piston mirror. Proceedings of SPIE, 2012, , .	0.8	5
52	Optical position feedback for electrostatically driven MOEMS scanners. , 2012, , .		5
53	Design rules for a compact and low-cost optical position sensing of MOEMS tilt mirrors based on a Gaussian-shaped light source. Proceedings of SPIE, 2013, , .	0.8	5
54	Silicon photonics in the mid-infrared: Waveguide absorption sensors. , 2014, , .		5

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55	Compact optical position feedback scheme for MOEMS mirrors. Microsystem Technologies, 2014, 20, 743-749.	1.2	5
56	Design and Analysis of a Slot Photonic Crystal Waveguide for Highly Sensitive Evanescent Field Absorption Sensing in Fluids. Micromachines, 2020, 11, 781.	1.4	5
57	Position feedback and phase control of resonant MOEMS-mirrors with one and two axes. Procedia Engineering, 2010, 5, 689-692.	1.2	4
58	Optical position feedback and phase control of MOEMS scanner mirrors. Proceedings of SPIE, 2010, , .	0.8	4
59	Hybrid Photonic Crystal-Surface Plasmon Polariton Waveguiding System for On-Chip Sensing Applications. Proceedings (mdpi), 2018, 2, .	0.2	4
60	Impact of Different Metals on the Performance of Slab Tamm Plasmon Resonators. Sensors, 2020, 20, 6804.	2.1	4
61	Design of a Curved Shape Photonic Crystal Taper for Highly Efficient Mode Coupling. Sensors, 2021, 21, 585.	2.1	4
62	Silicon Nitride Photonic Particle Detectorâ€"Experiments and Model Assessment. IEEE Sensors Journal, 2021, 21, 18829-18836.	2.4	4
63	Ultra-Narrow SPP Generation from Ag Grating. Sensors, 2021, 21, 6993.	2.1	4
64	Simulating particle influence on silicon nitride strip waveguide single-mode parameters. , 2019, , .		4
65	Design of a Slab Tamm Plasmon Resonator Coupled to a Multistrip Array Waveguide for the Mid Infrared. Sensors, 2022, 22, 2968.	2.1	4
66	Optical Kerr effect studies of the dynamics of confined water. Microelectronics Journal, 2008, 39, 1257-1258.	1.1	3
67	MOEMS translatory actuator characterisation, position encoding and closed-loop control. Microsystem Technologies, 2010, 16, 901-907.	1.2	3
68	Theoretical Aspects in the Design of Optical Angular Position Sensing of Tiltable Mirrors. International Journal of Optomechatronics, 2013, 7, 193-206.	3.3	3
69	Compact Low-cost Scanner for 3D-Reconstruction of Body Parts with Structured Light Illumination. International Journal of Bio-Science and Bio-Technology, 2014, 6, 13-22.	0.2	3
70	Design of a Mid-Infrared Bandpass Filter With Large Rejection Bandwidth for Silicon Photonics. Journal of Lightwave Technology, 2019, 37, 3770-3776.	2.7	3
71	Application of a compact diode pumped solid-state laser source for quantitative laser-induced breakdown spectroscopy analysis of steel. Optical Engineering, 2017, 56, 1.	0.5	3
72	Design, Analysis, and Optimization of a Plasmonic Slot Waveguide for Mid-Infrared Gas Sensing. Nanomaterials, 2022, 12, 1732.	1.9	3

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73	Optical position detection for MOEMS scanner mirrors with arbitrary trajectories. , 2014, , .		2
74	Hyperspectral light field imaging. , 2015, , .		2
75	Integrated packaging of 2D MOEMS mirrors with optical position feedback. Proceedings of SPIE, 2015, , .	0.8	2
76	Detailed Analysis of the Timing Measurements in Optical Position Sensing Devices Based on Laser Beam Deflection. Journal of Sensors, 2016, 2016, 1-8.	0.6	2
77	Photonic Gas Sensor Using a Silicon Strip Waveguide. Proceedings (mdpi), 2017, 1, 547.	0.2	2
78	Evanescent-Wave Gas Sensing Using an Integrated Thermal Light Source. Proceedings (mdpi), 2017, 1, 550.	0.2	2
79	Using an optimized grating as a mid-IR surface plasmon gas sensor utilizing highly doped silicon. , 2019, , .		2
80	Solvation Dynamics at Water-ZrO2 Interfaces. , 2004, , 541-544.		2
81	In-situ heat input and high resolution thermal expansion sensing in a miniaturized side-pumped DPSS laser. Procedia Engineering, 2010, 5, 560-563.	1.2	1
82	Optical position feedback and phase control of resonant 1D and 2D MOEMS-scanners. , 2011, , .		1
83	Closed-loop control for quasi-static MOEMS mirrors. , 2012, , .		1
84	Industrial Raman mapping spectroscopy for mining applications. , 2012, , .		1
85	Compact DPSS-laser source for LIBS analysis of steel. Proceedings of SPIE, 2017, , .	0.8	1
86	Single Particle Detector Using the Evanescent Field of a Silicon Nitride Waveguide. , 2019, , .		1
87	Evanescent field waveguide particle detector : Simulations concerning size and shape dependence. , 2019, , .		1
88	Modelling of Evanescent Field Scattering. Proceedings (mdpi), 2020, 56, .	0.2	1
89	Engineering mode coupling in a hybrid plasmon-photonic cavity for dual-band infrared spectroscopic gas sensing. OSA Continuum, 2021, 4, 1827.	1.8	1
90	Plasmonic Silver Grating for Mid-Infrared Sensing. , 2021, , .		1

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91	Unveiling Electronic Phase Relaxation in a Strongly Disordered Conjugated Polymer. , 2004, , 491-494.		1
92	Molecular wave packet revivals probed by phase-randomized fluorescence (COIN) interferometry. , 0, , .		0
93	Raman-induced signals in optical Kerr effect measurements of water with elliptically polarized pulses. Journal of the Optical Society of America B: Optical Physics, 2006, 23, 2522.	0.9	0
94	Femtosecond polarization relaxation in CdSe nanocrystals. AIP Conference Proceedings, 2007, , .	0.3	0
95	Miniaturized MEMS-based spectrometric sensor for process control and analysis of carbonated beverages. , 2010, , .		0
96	Snapshot spectral imaging demonstrator. Proceedings of SPIE, 2011, , .	0.8	0
97	Closed-loop synchronization scheme of resonant MOEMS-mirrors with two axes. Proceedings of SPIE, 2011, , .	0.8	0
98	Design of an optical position detection unit for fast 2D-MOEMS scanners. , 2012, , .		0
99	Theoretical aspects and derived design rules for optical angle position sensing of tilt mirrors. , 2012, , .		0
100	Snapshot spectral imaging using optimized diffractive optical elements. Proceedings of SPIE, 2012, , .	0.8	0
101	Optical position feedback of quasi-static 2D MOEMS mirrors. , 2013, , .		0
102	Thermally induced light-driven microfluidics using a MOEMS-based laser scanner for particle manipulation. , 2014, , .		0
103	Optical design of MOEMS-based micro-mechatronic modules for applications in spectroscopy. , 2014, , .		0
104	Functional MOEMS packaging with optical position feedback. , 2015, , .		0
105	MOEMS Based Laser Scanner for Light-driven Microfluidics. Procedia Engineering, 2015, 120, 1063-1066.	1.2	0
106	Intrinsic damping in silicon slab waveguides in the mid-infrared. , 2017, , .		0
107	Sensitivity Comparison of Integrated Mid-Infrared Silicon-Based Photonic Detectors. Proceedings (mdpi), 2018, 2, 796.	0.2	0
108	Optimization of Si-Based Waveguides for Evanescent-Field Sensors. Proceedings (mdpi), 2018, 2, 739.	0.2	0

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109	Si-Based Waveguides for Evanescent-Field Sensors. , 2018, , .		0
110	Chirped Grating IR-Filter on a Waveguide for Sensing Applications. Proceedings (mdpi), 2020, 42, 81.	0.2	0
111	Towards Integrated Plasmonic Gas Sensors in the MWIR. Engineering Proceedings, 2021, 6, .	0.4	0
112	High Resolution 3D-Reconstruction of Body Parts with Structured Light Illumination. , 2013, , .		0