

Andreas Tortschanoff

List of Publications by Year in descending order

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112
papers

1,151
citations

430442

18
h-index

454577

30
g-index

112
all docs

112
docs citations

112
times ranked

1234
citing authors

#	ARTICLE	IF	CITATIONS
1	Design of a Slab Tamm Plasmon Resonator Coupled to a Multistrip Array Waveguide for the Mid Infrared. Sensors, 2022, 22, 2968.	2.1	4
2	Design, Analysis, and Optimization of a Plasmonic Slot Waveguide for Mid-Infrared Gas Sensing. Nanomaterials, 2022, 12, 1732.	1.9	3
3	Design of a Curved Shape Photonic Crystal Taper for Highly Efficient Mode Coupling. Sensors, 2021, 21, 585.	2.1	4
4	Aluminium, gold-tin and titanium-tungsten alloys for mid-infrared plasmonic gratings. Optical Materials Express, 2021, 11, 1058.	1.6	9
5	Designing Mid-Infrared Gold-Based Plasmonic Slot Waveguides for CO2-Sensing Applications. Sensors, 2021, 21, 2669.	2.1	9
6	Optimization of Resonant PZT MEMS Mirrors by Inverse Design and Electrode Segmentation. Journal of Microelectromechanical Systems, 2021, 30, 216-223.	1.7	14
7	Towards Integrated Plasmonic Gas Sensors in the MWIR. Engineering Proceedings, 2021, 6, .	0.4	0
8	Engineering mode coupling in a hybrid plasmon-photonic cavity for dual-band infrared spectroscopic gas sensing. OSA Continuum, 2021, 4, 1827.	1.8	1
9	Plasmonic Silver Grating for Mid-Infrared Sensing. , 2021, , .		1
10	Silicon Nitride Photonic Particle Detector“Experiments and Model Assessment. IEEE Sensors Journal, 2021, 21, 18829-18836.	2.4	4
11	Ultra-Narrow SPP Generation from Ag Grating. Sensors, 2021, 21, 6993.	2.1	4
12	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
13	Modelling of Evanescent Field Scattering. Proceedings (mdpi), 2020, 56, .	0.2	1
14	Impact of Different Metals on the Performance of Slab Tamm Plasmon Resonators. Sensors, 2020, 20, 6804.	2.1	4
15	Chirped Grating IR-Filter on a Waveguide for Sensing Applications. Proceedings (mdpi), 2020, 42, 81.	0.2	0
16	Resonant PZT MEMS Mirror with Segmented Electrodes. , 2020, , .		6
17	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
18	A CMOS Compatible Pyroelectric Mid-Infrared Detector Based on Aluminium Nitride. Sensors, 2019, 19, 2513.	2.1	20

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19	Highly Selective CMOS-Compatible Mid-Infrared Thermal Emitter/Detector Slab Design Using Optical Tamm-States. <i>Materials</i> , 2019, 12, 929.	1.3	6
20	Using an optimized grating as a mid-IR surface plasmon gas sensor utilizing highly doped silicon. , 2019, , .		2
21	Single Particle Detector Using the Evanescent Field of a Silicon Nitride Waveguide. , 2019, , .		1
22	Evanescent field waveguide particle detector : Simulations concerning size and shape dependence. , 2019, , .		1
23	Simulating particle influence on silicon nitride strip waveguide single-mode parameters. , 2019, , .		4
24	Sensitivity Comparison of Integrated Mid-Infrared Silicon-Based Photonic Detectors. <i>Proceedings (mdpi)</i> , 2018, 2, 796.	0.2	0
25	Hybrid Photonic Crystal-Surface Plasmon Polariton Waveguiding System for On-Chip Sensing Applications. <i>Proceedings (mdpi)</i> , 2018, 2, .	0.2	4
26	Numerical Investigations of Infrared Slot Waveguides for Gas Sensing. <i>Proceedings (mdpi)</i> , 2018, 2, 799.	0.2	6
27	Optimization of Si-Based Waveguides for Evanescent-Field Sensors. <i>Proceedings (mdpi)</i> , 2018, 2, 739.	0.2	0
28	Characterization of Evanescent Field Gas Sensor Structures Based on Silicon Photonics. <i>IEEE Photonics Journal</i> , 2018, 10, 1-14.	1.0	42
29	Si-Based Waveguides for Evanescent-Field Sensors. , 2018, , .		0
30	Mid-infrared absorption gas sensing using a silicon strip waveguide. <i>Sensors and Actuators A: Physical</i> , 2018, 277, 117-123.	2.0	67
31	Taming parasitic thermal emission by Tamm plasmon polaritons for the mid-infrared. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2018, 35, 1490.	0.9	10
32	Self-propagating reactive Al/Ni nanocomposites for bonding applications. <i>Micro and Nano Systems Letters</i> , 2017, 5, .	1.7	17
33	Compact DPSS-laser source for LIBS analysis of steel. <i>Proceedings of SPIE</i> , 2017, , .	0.8	1
34	Photonics in the Mid-Infrared: Challenges in Single-Chip Integration and Absorption Sensing. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2017, 23, 452-463.	1.9	57
35	Intrinsic damping in silicon slab waveguides in the mid-infrared. , 2017, , .		0
36	Photonic Gas Sensor Using a Silicon Strip Waveguide. <i>Proceedings (mdpi)</i> , 2017, 1, 547.	0.2	2

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37	Evanescent-Wave Gas Sensing Using an Integrated Thermal Light Source. Proceedings (mdpi), 2017, 1, 550.	0.2	2
38	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
39	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
40	Spectroscopic Gas Sensing Using a Silicon Slab Waveguide. Procedia Engineering, 2016, 168, 1265-1269.	1.2	12
41	Functional MOEMS packaging with optical position feedback. , 2015, , .		0
42	Hyperspectral light field imaging. , 2015, , .		2
43	Integrated packaging of 2D MOEMS mirrors with optical position feedback. Proceedings of SPIE, 2015, , .	0.8	2
44	MOEMS Based Laser Scanner for Light-driven Microfluidics. Procedia Engineering, 2015, 120, 1063-1066.	1.2	0
45	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
46	Silicon photonics in the mid-infrared: Waveguide absorption sensors. , 2014, , .		5
47	Development, characterization and application of compact spectrometers based on MEMS with in-plane capacitive drives. , 2014, , .		8
48	Optical position detection for MOEMS scanner mirrors with arbitrary trajectories. , 2014, , .		2
49	Thermally induced light-driven microfluidics using a MOEMS-based laser scanner for particle manipulation. , 2014, , .		0
50	Optical design of MOEMS-based micro-mechatronic modules for applications in spectroscopy. , 2014, , .		0
51	Compact optical position feedback scheme for MOEMS mirrors. Microsystem Technologies, 2014, 20, 743-749.	1.2	5
52	Theoretical Aspects in the Design of Optical Angular Position Sensing of Tiltable Mirrors. International Journal of Optomechatronics, 2013, 7, 193-206.	3.3	3
53	Ultraviolet transient absorption, transient grating and photon echo studies of aqueous tryptophan. Chemical Physics, 2013, 422, 47-52.	0.9	10
54	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

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55	Optical position feedback of quasi-static 2D MOEMS mirrors. , 2013, , .		0
56	High Resolution 3D-Reconstruction of Body Parts with Structured Light Illumination. , 2013, , .		0
57	Design of an optical position detection unit for fast 2D-MOEMS scanners. , 2012, , .		0
58	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
59	Closed-loop control for quasi-static MOEMS mirrors. , 2012, , .		1
60	Optical position feedback for electrostatically driven MOEMS scanners. , 2012, , .		5
61	Theoretical aspects and derived design rules for optical angle position sensing of tilt mirrors. , 2012, , .		0
62	Snapshot spectral imaging using optimized diffractive optical elements. Proceedings of SPIE, 2012, , .	0.8	0
63	Industrial Raman mapping spectroscopy for mining applications. , 2012, , .		1
64	Optical position feedback and phase control of resonant 1D and 2D MOEMS-scanners. , 2011, , .		1
65	Snapshot spectral imaging demonstrator. Proceedings of SPIE, 2011, , .	0.8	0
66	Closed-loop synchronization scheme of resonant MOEMS-mirrors with two axes. Proceedings of SPIE, 2011, , .	0.8	0
67	A compact and portable IR analyzer: progress of a MOEMS FT-IR system for mid-IR sensing. , 2011, , .		12
68	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
69	Position encoding and phase control of resonant MOEMS mirrors. Sensors and Actuators A: Physical, 2010, 162, 235-240.	2.0	31
70	MOEMS translatory actuator characterisation, position encoding and closed-loop control. Microsystem Technologies, 2010, 16, 901-907.	1.2	3
71	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
72	Position feedback and phase control of resonant MOEMS-mirrors with one and two axes. Procedia Engineering, 2010, 5, 689-692.	1.2	4

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73	Three pulse UV photon echo studies of molecules in solution: Effect of the chirp. Journal of Chemical Physics, 2010, 133, 064506.	1.2	10
74	Optical position feedback and phase control of MOEMS scanner mirrors. Proceedings of SPIE, 2010, , .	0.8	4
75	Miniaturized MEMS-based spectrometric sensor for process control and analysis of carbonated beverages. , 2010, , .		0
76	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
77	Improved MOEMS-based ultra-rapid Fourier transform infrared spectrometer. Proceedings of SPIE, 2009, , .	0.8	15
78	Position encoding and closed loop control of MOEMS translatory actuators. , 2009, , .		5
79	A model for the multi-exponential excited-state decay of CdSe nanocrystals. Chemical Physics, 2009, 357, 96-101.	0.9	37
80	Compact High-Speed Spectrometers Based on MEMS Devices with Large Amplitude In-Plane Actuators. Procedia Chemistry, 2009, 1, 556-559.	0.7	8
81	MOEMS-Based Scanning Light Barrier. Procedia Chemistry, 2009, 1, 1299-1302.	0.7	13
82	Position encoding and phase control of resonant MOEMS-mirros. Procedia Chemistry, 2009, 1, 1315-1318.	0.7	7
83	Improved MEMS based FT-IR spectrometer. , 2009, , .		5
84	Optical Kerr effect studies of the dynamics of confined water. Microelectronics Journal, 2008, 39, 1257-1258.	1.1	3
85	Photon echo peak shift experiments in the UV: p-terphenyl in different solvents. Journal of Molecular Liquids, 2008, 141, 118-123.	2.3	23
86	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
87	Ultrafast nonresonant response of TiO2 nanostructured films. Journal of Chemical Physics, 2008, 128, 244718.	1.2	14
88	Subpicosecond near-infrared fluorescence upconversion study of relaxation processes in PbSe quantum dots. Physical Review B, 2007, 76, .	1.1	45
89	Femtosecond polarization relaxation in CdSe nanocrystals. AIP Conference Proceedings, 2007, , .	0.3	0
90	Temperature effects on the spectral properties of colloidal CdSe nanodots, nanorods, and tetrapods. Applied Physics Letters, 2007, 90, 093104.	1.5	139

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91	Liquid dynamics in ZrO ₂ nanoporous films. <i>Chemical Physics</i> , 2007, 341, 11-20.	0.9	9
92	Aqueous Solvation Dynamics at Metal Oxide Surfaces. <i>Journal of Physical Chemistry B</i> , 2006, 110, 7835-7844.	1.2	6
93	Raman-induced signals in optical Kerr effect measurements of water with elliptically polarized pulses. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2006, 23, 2522.	0.9	0
94	Modelling of aqueous solvation of eosin Y at the rutile TiO ₂ (110)/water interface. <i>Chemical Physics Letters</i> , 2006, 430, 375-379.	1.2	15
95	Correlation of femtosecond wave packets and fluorescence interference in a conjugated polymer: Towards the measurement of site homogeneous dephasing. <i>Journal of Chemical Physics</i> , 2004, 120, 9870-9885.	1.2	30
96	Femtosecond coherence in poly(p-Phenylene-vinylene) ? polarization beatings and phase-relaxation probed by wavepacket fluorescence interferometry. <i>Applied Physics A: Materials Science and Processing</i> , 2004, 78, 497-503.	1.1	7
97	Probing phase relaxation by measuring fluorescence interference: polarization beating and electron-phonon coupling in conjugated polymers. <i>Journal of Luminescence</i> , 2004, 108, 205-209.	1.5	12
98	Unveiling Electronic Phase Relaxation in a Strongly Disordered Conjugated Polymer. , 2004, , 491-494.		1
99	Solvation Dynamics at Water-ZrO ₂ Interfaces. , 2004, , 541-544.		2
100	Femtosecond excitation tuning and site energy memory of population transfer in poly(p-phenylenevinylene): Gated luminescence experiments and simulation. <i>Journal of Chemical Physics</i> , 2002, 117, 10877-10887.	1.2	31
101	Collective many-body resonances in condensed phase nonlinear spectroscopy. <i>Journal of Chemical Physics</i> , 2002, 116, 5007.	1.2	7
102	Electronic coupling and coherences in disordered polymers: Femtosecond 2D-photon echo correlation spectroscopy, signatures of an excitonic two-segmental site system: A theoretical study. <i>Journal of Chemical Physics</i> , 2002, 116, 8218-8231.	1.2	11
103	Pump-Probe Simulation Study of the Two-Exciton Manifold of Dendrimers. <i>Journal of Physical Chemistry A</i> , 2002, 106, 7521-7529.	1.1	15
104	Multiple quantum coherences in liquid state NMR and nonlinear optics: collective vs local origin. <i>Chemical Physics Letters</i> , 2002, 357, 327-335.	1.2	19
105	Ultrafast optical dynamics of spiro-compounds. <i>Synthetic Metals</i> , 2001, 121, 1497-1498.	2.1	16
106	Femtosecond pump-probe spectroscopy of the dendrimeric nanostar. <i>Journal of Luminescence</i> , 2001, 94-95, 569-573.	1.5	5
107	Molecular quantum dynamics in a thermal system: Fractional wave packet revivals probed by random-phase fluorescence interferometry. <i>Journal of Chemical Physics</i> , 2001, 114, 9901-9910.	1.2	27
108	Studying vibrational wavepacket dynamics by measuring fluorescence interference fluctuations. <i>Journal of Chemical Physics</i> , 2000, 112, 5060-5069.	1.2	39

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109	Coherence from fluorescence correlations: Oscillatory femtosecond fluorescence in pentacene/p-terphenyl. <i>Journal of Chemical Physics</i> , 1999, 110, 4493-4504.	1.2	19
110	The convolution problem in COIN spectroscopy. <i>Chemical Physics</i> , 1999, 244, 89-100.	0.9	7
111	Sensitivity of Flavin Fluorescence Dynamics in Neuronal Nitric Oxide Synthase to Cofactor-Induced Conformational Changes and Dimerization. <i>Biochemistry</i> , 1998, 37, 17545-17553.	1.2	36
112	Molecular wave packet revivals probed by phase-randomized fluorescence (COIN) interferometry. , 0, , .		0