GÃ¼nther Paltauf

List of Publications by Year
in descending order

124 papers	4,576 citations	136950 32 h-index	102487 66 g-index
124 all docs	124 docs citations	124 times ranked	2925 citing authors

#	Article	IF	Citations
1	Photoacoustic computational ghost imaging. Optics Letters, 2022, 47, 1462.	3.3	4
2	Comprehensive analysis of spherical bubble oscillations and shock wave emission in laser-induced cavitation. Journal of Fluid Mechanics, 2022, 940, .	3.4	42
3	Benchtop photoacoustic tomograph with camera-based ultrasound detection. , 2021, , .		0
4	Photoacoustic imaging using structured illumination and a single-pixel ultrasound detector. , 2021, , .		0
5	Progress in biomedical photoacoustic imaging instrumentation toward clinical application. Journal of Applied Physics, 2020, 128, .	2.5	20
6	Conical ring array detector for large depth of field photoacoustic macroscopy. Biomedical Optics Express, 2020, 11, 2461.	2.9	2
7	Compact photoacoustic add-on for a reflectance confocal microscope. , 2020, , .		0
8	Comparison of Piezoelectric and Optical Projection Imaging for Three-Dimensional In Vivo Photoacoustic Tomography. Journal of Imaging, 2019, 5, 15.	3.0	11
9	Deep Learning of truncated singular values for limited view photoacoustic tomography. , 2019, , .		8
10	Optimization of image quality in photoacoustic tomography using spatial projection data. , 2019, , .		2
11	Combination of an annular array with a conical acoustic lens for large depth of field photoacoustic macroscopy. , 2019, , .		0
12	Combined confocal and photoacoustic microscopy based on probe beam deflection technique. , 2019, , .		1
13	Acoustic resolution photoacoustic microscopy with large area optical ultrasound detection. , 2019, , .		0
14	Generation and monitoring of cavitation with an optical resolution photoacoustic microscope. , 2019, , .		1
15	Modeling photoacoustic imaging with a scanning focused detector using Monte Carlo simulation of energy deposition. Journal of Biomedical Optics, 2018, 23, 1.	2.6	16
16	Photoacoustic scanning macroscopy with interferometric ultrasound detection based on a fiber-optic ring array. , 2018, , .		0
17	Ring detector arrays for large depth of field scanning photoacoustic macroscopy. , 2018, , .		1
18	First steps towards dual-modality 3D photoacoustic and speed of sound imaging with optical ultrasound detection. , 2017, , .		0

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19	Piezoelectric line detector array for photoacoustic tomography. Photoacoustics, 2017, 8, 28-36.	7.8	33
20	Laser Ultrasonic Thin Film Characterization of Si-Cu-Al-Cu Multi-Layered Stacks. Materials Today: Proceedings, 2017, 4, 7122-7127.	1.8	0
21	Annular array detector for large depth of field photoacoustic macroscopy. Proceedings of SPIE, 2017, , .	0.8	0
22	Photoacoustic tomography with a line detector array. Proceedings of SPIE, 2017, , .	0.8	2
23	Speed of sound and photoacoustic imaging with an optical camera based ultrasound detection system. Proceedings of SPIE, 2017, , .	0.8	0
24	Light-sheet photoacoustic microscopy (LIS-PAM) with optical ultrasound detection. Proceedings of SPIE, 2016, , .	0.8	3
25	Combined photoacoustic, pulse-echo laser ultrasound, and speed-of-sound imaging using integrating optical detection. Journal of Biomedical Optics, 2016, 21, 086010.	2.6	13
26	Fast photoacoustic imaging with a line scanning optical-acoustical resolution photoacoustic microscope (LS-OAR-PAM). , 2015, , .		0
27	Fast photoacoustic imaging with a line scanning optical-acoustical resolution photoacoustic microscope (LS-OAR-PAM). Proceedings of SPIE, 2015, , .	0.8	0
28	Speed-of-sound correction for photoacoustic and laser-ultrasound imaging with an integrating cylindrical detector. Proceedings of SPIE, 2015, , .	0.8	1
29	Young's Modulus and Poisson's Ratio Characterization of Tungsten Thin Films Via Laser Ultrasound. Materials Today: Proceedings, 2015, 2, 4289-4294.	1.8	18
30	Speed-of-sound correction for photoacoustic and laser-ultrasound imaging with an integrating cylindrical detector. , 2015, , .		1
31	Imaging of blood vessels with CCD-camera based three-dimensional photoacoustic tomography. Proceedings of SPIE, 2014, , .	0.8	1
32	Combined photoacoustic and speed-of-sound imaging using integrating optical detection. , 2014, , .		4
33	Artifact removal in photoacoustic section imaging by combining an integrating cylindrical detector with model-based reconstruction. Journal of Biomedical Optics, 2014, 19, 026014.	2.6	11
34	64-line-sensor array: fast imaging system for photoacoustic tomography. Proceedings of SPIE, 2014, , .	0.8	3
35	High resolution three-dimensional photoacoustic tomography with CCD-camera based ultrasound detection. Biomedical Optics Express, 2014, 5, 2635.	2.9	59
36	Deblurring algorithms accounting for the finite detector size in photoacoustic tomography. Journal of Biomedical Optics, 2014, 19, 056011.	2.6	23

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37	Detection of nanosecond optoacoustic pulses in steel. Acoustical Physics, 2013, 59, 250-252.	1.0	7
38	Simultaneous three-dimensional laser-ultrasound and photoacoustic imaging. , 2013, , .		0
39	Dual-modality section imaging system with optical ultrasound detection for photoacoustic and ultrasound imaging. Proceedings of SPIE, 2013, , .	0.8	1
40	Low-cost parallelization of optical fiber based detectors for photoacoustic imaging. Proceedings of SPIE, 2013, , .	0.8	7
41	Simultaneous three-dimensional photoacoustic and laser-ultrasound tomography. Biomedical Optics Express, 2013, 4, 1380.	2.9	34
42	Free beam Fabry-Perot-interferometer as detector for photoacoustic tomography. Proceedings of SPIE, 2013, , .	0.8	3
43	Ultraschall aus Licht. Physik in Unserer Zeit, 2013, 44, 244-250.	0.0	0
44	Hybrid photoacoustic and ultrasound section imaging with optical ultrasound detection. Journal of Biophotonics, 2013, 6, 549-559.	2.3	28
45	Dual mode photoacoustic/acoustic microscopy with optical generation and detection. , 2012, , .		2
46	Photoacoustic section imaging using an elliptical acoustic mirror and optical detection. Journal of Biomedical Optics, 2012, 17, 030503.	2.6	12
47	Spatial resolution and sensitivity in photoacoustic tomography taking noise into account: from point-like detectors to large integrating detectors. , 2012, , .		0
48	Acoustic reflector combined with optical detection for photoacoustic section imaging. Proceedings of SPIE, 2012, , .	0.8	0
49	Single mode polymer fiber line detector for photoacoustic tomography. Proceedings of SPIE, 2012, , .	0.8	1
50	Piezoelectric annular array for large depth of field photoacoustic imaging. Biomedical Optics Express, 2011, 2, 2655.	2.9	20
51	Photoacoustic section imaging with an integrating cylindrical detector. Biomedical Optics Express, 2011, 2, 2973.	2.9	34
52	Downstream Fabryâ€“Perot interferometer for acoustic wave monitoring in photoacoustic tomography. Optics Letters, 2011, 36, 981.	3.3	27
53	Photoacoustic section imaging with an integrating cylindrical detector. , 2011, , .		1
54	Fiber-based broadband ultrasound detector for photoacoustic imaging. , 2011, , .		0

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55	Attenuation of ultrasound in severely plastically deformed nickel. NDT and E International, 2011, 44, 261-266.	3.7	4
56	Photoacoustic tomography of ex vivo mouse hearts with myocardial infarction. Journal of Biomedical Optics, 2011, 16, 036007.	2.6	10
57	On the use of frequency-domain reconstruction algorithms for photoacoustic imaging. Journal of Biomedical Optics, 2011, 16, 086002.	2.6	19
58	Photoacoustic microtomography using optical interferometric detection. Journal of Biomedical Optics, 2010, 15, 021307.	2.6	43
59	Polymer fiber detectors for photoacoustic imaging. Proceedings of SPIE, 2010, , .	0.8	6
60	Broadband optoacoustic measurements of ultrasound attenuation in severely plastically deformed nickel. Journal of Applied Physics, 2010, 107, 094905.	2.5	9
61	Three-dimensional photoacoustic imaging using fiber-based line detectors. Journal of Biomedical Optics, 2010, 15, 021306.	2.6	56
62	Photoacoustic microtomography: system characterization and first results on biological specimens. Proceedings of SPIE, 2010, , .	0.8	0
63	Photoacoustic tomography of pathological tissue in ex-vivo mouse hearts. Proceedings of SPIE, 2010, , .	0.8	0
64	Full field detection in photoacoustic tomography. Optics Express, 2010, 18, 6288.	3.4	31
65	Photoacoustic imaging with a large, cylindrical detector. , 2010, , .		1
66	Photoacoustic imaging with limited diffraction beam transducers. , 2009, , .		1
67	Photoacoustic imaging with integrating line detectors. Proceedings of SPIE, 2009, , .	0.8	5
68	Weight factors for limited angle photoacoustic tomography. Physics in Medicine and Biology, 2009, 54, 3303-3314.	3.0	53
69	Characterization of integrating ultrasound detectors for photoacoustic tomography. Journal of Applied Physics, 2009, 105, 102026.	2.5	34
70	Fiber-based detectors for photoacoustic imaging. Proceedings of SPIE, 2009, , .	0.8	8
71	Femtosecond-Laser-Induced Nanocavitation in Water: Implications for Optical Breakdown Threshold and Cell Surgery. Physical Review Letters, 2008, 100, 038102.	7.8	262
72	Photoacoustic tomography of heterogeneous media using a model-based time reversal method. , 2008, , .		12

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73	Femtosecond and nanosecond laser-induced nanoeffects for cell surgery and modification of glass. , 2008, , .		3
74	Nanoeffects in Cells and Tissues by Femtosecond and Nanosecond Laser Pulses. , 2008, , .		0
75	Compensation of acoustic attenuation for high-resolution photoacoustic imaging with line detectors. , 2007, , .		34
76	Comparison of surface plasmon resonance devices for acoustic wave detection in liquid. Optics Express, 2007, 15, 6087.	3.4	44
77	Photoacoustic tomography using a Mach-Zehnder interferometer as an acoustic line detector. Applied Optics, 2007, 46, 3352.	2.1	156
78	Exact and approximative imaging methods for photoacoustic tomography using an arbitrary detection surface. Physical Review E, 2007, 75, 046706.	2.1	166
79	THERMOACOUSTIC TOMOGRAPHY AND THE CIRCULAR RADON TRANSFORM: EXACT INVERSION FORMULA. Mathematical Models and Methods in Applied Sciences, 2007, 17, 635-655.	3.3	78
80	Mechanisms of femtosecond laser nanoprocessing of biological cells and tissues. Journal of Physics: Conference Series, 2007, 59, 249-254.	0.4	13
81	Femtosecond Plasma-Mediated Nanosurgery of Cells and Tissues. , 2007, , 231-280.		3
82	Mechanisms of femtosecond laser nanosurgery of cells and tissues. Applied Physics B: Lasers and Optics, 2005, 81, 1015-1047.	2.2	1,279
83	Thermoacoustic tomography with integrating area and line detectors. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2005, 52, 1577-1583.	3.0	100
84	Spectral optoacoustic imaging using a wavelength-multiplexing technique. , 2004, , .		3
85	Photomechanical Processes and Effects in Ablation. ChemInform, 2003, 34, no.	0.0	1
86	Photomechanical Processes and Effects in Ablation. Chemical Reviews, 2003, 103, 487-518.	47.7	352
87	Dual-wavelength optoacoustic imaging. , 2003, , .		4
88	<title>Low-density plasmas below the optical breakdown threshold: potential hazard for multiphoton microscopy, and a tool for the manipulation of intracellular events</title>. , 2002, , .		9
89	Femtosecond-laser-produced low-density plasmas in transparent biological media: a tool for the creation of chemical, thermal, and thermomechanical effects below the optical breakdown threshold. , 2002, , .		34
90	Clinical testing of a photoacoustic probe for port wine stain depth determination. Lasers in Surgery and Medicine, 2002, 30, 141-148.	2.1	122

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91	Iterative reconstruction algorithm for optoacoustic imaging. Journal of the Acoustical Society of America, 2002, 112, 1536-1544.	1.1	247
92	Optoacoustic tomography: time-gated measurement of pressure distributions and image reconstruction. Applied Optics, 2001, 40, 3800.	2.1	52
93	Optoacoustic imaging using a three-dimensional reconstruction algorithm. IEEE Journal of Selected Topics in Quantum Electronics, 2001, 7, 918-923.	2.9	92
94	Iterative reconstruction method for three-dimensional optoacoustic imaging. , 2001, , .		7
95	Modeling pressure waves generated by pulsed laser irradiation of irregularly shaped absorbing objects within media. , 2001, , .		0
96	<title>Optoacoustic tomography using a two-dimensional optical pressure transducer and two different reconstruction algorithms</title>. , 2001, 4434, 74.		1
97	Reconstruction techniques for optoacoustic imaging. , 2001, , .		1
98	<title>Spectral optoacoustic imaging using a scanning transducer</title>. , 2001, , .		14
99	Design and testing of an endoscopic photoacoustic probe for determination of treatment depth after photodynamic therapy. , 2001, , .		18
100	Optoacoustic infrared spectroscopy of soft tissue. Journal of Applied Physics, 2000, 88, 1632-1637.	2.5	38
101	Pulsed optoacoustic characterization of layered media. Journal of Applied Physics, 2000, 88, 1624-1631.	2.5	51
102	Photoacoustic cavitation in spherical and cylindrical absorbers. Applied Physics A: Materials Science and Processing, 1999, 68, 525-531.	2.3	52
103	Optical method for two-dimensional ultrasonic detection. Applied Physics Letters, 1999, 75, 1048-1050.	3.3	75
104	Two-dimensional recording of optoacoustic waves. , 1999, , .		6
105	Stealth ryanodine-sensitive Ca2+release contributes to activity of capacitative Ca2+entry and nitric oxide synthase in bovine endothelial cells. Journal of Physiology, 1998, 513, 369-379.	2.9	42
106	Photoacoustic waves excited in liquids by fiber-transmitted laser pulses. Journal of the Acoustical Society of America, 1998, 104, 890-897.	1.1	65
107	<title>Photoacoustic determination of tissue optical properties and structure by use of an optical parametric oscillator</title>. , 1998, , .		3
108	Internal photomechanical fracture of spatially limited absorbers irradiated by short laser pulses. , 1998, 3254, 112.		4

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109	Measurement of laser-induced acoustic waves with a calibrated optical transducer. Journal of Applied Physics, 1997, 82, 1525-1531.	2.5	74
110	Microcavity dynamics during laser-induced spallation of liquids and gels. Applied Physics A: Materials Science and Processing, 1996, 62, 303-311.	2.3	73
111	Laser-Generated Cavitation in Absorbing Liquid Induced by Acoustic Diffraction. Physical Review Letters, 1996, 76, 3546-3549.	7.8	92
112	Influence of acoustic diffraction on laser-induced stress wave effects in absorbing media. , 1996, , .		2
113	Light distribution measurements in absorbing materials by optical detection of laserâ€induced stress waves. Applied Physics Letters, 1996, 69, 1526-1528.	3.3	67
114	Modeling and experimental observation of photomechanical effects in tissue-like media. , 1995, , .		4
115	Model study to investigate the contribution of spallation to pulsed laser ablation of tissue. Lasers in Surgery and Medicine, 1995, 16, 277-287.	2.1	37
116	<title>Time-resolved observation of thermal and mechanical effects in tissue models induced by short laser pulses from an optical parametric oscillator</title>. , 1994, 2077, 171.		2
117	Investigation of ablation dynamics as a function of wavelength. , 1994, , .		0
118	Untersuchung laserinduzierter Gewebeeffekte als Grundlage bei der Entwicklung minimal invasiver chirurgischer Eingriffe. Biomedizinische Technik, 1993, 38, 273-276.	0.8	0
119	Laserspallation- eine neue MÃ¶glichkeit zur nicht thermischen Gewebeabtragung. Biomedizinische Technik, 1993, 38, 427-430.	0.8	0
120	Study of different ablation models by use of high-speed-sampling photography. , 1992, 1646, 343.		24
121	A special irrigation liquid to increase the reliability of laser-induced shockwave lithotripsy. Lasers in Surgery and Medicine, 1992, 12, 204-209.	2.1	7
122	Investigation of the probabilistic behavior of laserâ€induced breakdown in pure water and in aqueous solutions of different concentrations. Journal of Applied Physics, 1989, 66, 4149-4153.	2.5	13
123	Ultrasonic Evaluation of Severely Plastically Deformed Metals. Key Engineering Materials, 0, 465, 374-377.	0.4	1
124	Photoacoustic imaging. , 0, , .		0