Thomas D Wang

List of Publications by Year
in descending order

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Version: 2024-02-01

112 papers	4,227 citations	109137 35 h-index	123241 61 g-index
114 all docs	114 docs citations	114 times ranked	4050 citing authors

#	Article	IF	Citations
1	Membrane Bound Peroxiredoxin-1 Serves as a Biomarker for In Vivo Detection of Sessile Serrated Adenomas. Antioxidants and Redox Signaling, 2022, 36, 39-56.	2.5	4
2	Detection of Barrettâ€™s neoplasia with a near-infrared fluorescent heterodimeric peptide. Endoscopy, 2022, 54, 1198-1204.	1.0	10
3	Multi-modal imaging for uptake of peptide ligand specific for CD44 by hepatocellular carcinoma. Photoacoustics, 2022, 26, 100355.	4.4	1
4	Multiplexed endoscopic imaging of Barrettâ€™s neoplasia using targeted fluorescent heptapeptides in a phase 1 proof-of-concept study. Gut, 2021, 70, 1010-1013.	6.1	24
5	Image Processing Metrics for Phase Identification of a Multiaxis MEMS Scanner Used in Single Pixel Imaging. IEEE/ASME Transactions on Mechatronics, 2021, 26, 1445-1454.	3.7	8
6	Self-Sensing of Oscillation in Parametrically-Resonant MEMS Mirrors with Uncertain Nonlinear Dynamics. , 2021, , .		0
7	Multi-Modal Imaging Probe for Glypican-3 Overexpressed in Orthotopic Hepatocellular Carcinoma. Journal of Medicinal Chemistry, 2021, 64, 15639-15650.	2.9	1
8	Multi-photon 3D imaging with an electrothermal actuator with low thermal and inertial mass. Sensors and Actuators A: Physical, 2021, 329, 112791.	2.0	4
9	Thin Layer-Protected Gold Nanoparticles for Targeted Multimodal Imaging with Photoacoustic and CT. Pharmaceuticals, 2021, 14, 1075.	1.7	8
10	Improved Extended Kalman Filter Estimation Using Threshold Signal Detection With an MEMS Electrostatic Microscanner. IEEE Transactions on Industrial Electronics, 2020, 67, 1328-1336.	5.2	15
11	Estimating Perturbations to Laser Position on Tissue for Lissajous Scanning in Endomicroscopy*. , 2020, , .		2
12	Motion Estimation for a Compact Electrostatic Microscanner via Shared Driving and Sensing Electrodes in Endomicroscopy. IEEE/ASME Transactions on Mechatronics, 2020, 25, 661-672.	3.7	10
13	AGA White Paper: Roadmap for the Future of Colorectal Cancer Screening in the United States. Clinical Gastroenterology and Hepatology, 2020, 18, 2667-2678.e2.	2.4	29
14	Ultra-Compact Microsystems-Based Confocal Endomicroscope. IEEE Transactions on Medical Imaging, 2020, 39, 2406-2414.	5.4	17
15	Integrated Imaging Methodology Detects Claudin-1 Expression in Premalignant Nonpolypoid and Polypoid Colonic Epithelium in Mice. Clinical and Translational Gastroenterology, 2020, 11, e00089.	1.3	4
16	Sorafenib encapsulated in nanocarrier functionalized with glypican-3 specific peptide for targeted therapy of hepatocellular carcinoma. Colloids and Surfaces B: Biointerfaces, 2019, 184, 110498.	2.5	13
17	Large-Displacement Vertical Electrostatic Microactuator Dynamics Using Duty-Cycled Softening/Stiffening Parametric Resonance. Journal of Microelectromechanical Systems, 2019, 28, 351-361.	1.7	11
18	Constitutively Higher Level of GSTT2 in Esophageal Tissues From African Americans Protects Cells Against DNA Damage. Gastroenterology, 2019, 156, 1404-1415.	0.6	15

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19	Identification of Tumor Specific Peptide as EpCAM Ligand and Its Potential Diagnostic and Therapeutic Clinical Application. Molecular Pharmaceutics, 2019, 16, 2199-2213.	2.3	11
20	Detection of colonic neoplasia in vivo using near-infrared-labeled peptide targeting cMet. Scientific Reports, 2019, 9, 17917.	1.6	10
21	3 degree-of-freedom resonant scanner with full-circumferential range and large out-of-plane displacement. Optics Express, 2019, 27, 16296.	1.7	8
22	Dynamics of thin-film piezoelectric microactuators with large vertical stroke subject to multi-axis coupling and fabrication asymmetries. Journal of Micromechanics and Microengineering, 2018, 28, 015014.	1.5	7
23	Use of Appropriate Surveillance for Patients With Nondysplastic Barrettâ€™s Esophagus. Clinical Gastroenterology and Hepatology, 2018, 16, 862-869.e3.	2.4	20
24	Dual-modal in vivo fluorescence and photoacoustic imaging using a heterodimeric peptide. Chemical Communications, 2018, 54, 13196-13199.	2.2	17
25	Targeted Optical Imaging Agents in Cancer: Focus on Clinical Applications. Contrast Media and Molecular Imaging, 2018, 2018, 1-19.	0.4	69
26	Endoscopic Imaging Techniques: Beyond Narrow Band. American Journal of Gastroenterology, 2018, 113, 1103-1107.	0.2	3
27	Multiplexed Targeting of Barrettâ€™s Neoplasia with a Heterobivalent Ligand: Imaging Study on Mouse Xenograft in Vivo and Human Specimens ex Vivo. Journal of Medicinal Chemistry, 2018, 61, 5323-5331.	2.9	16
28	An electrostatic MEMS scanner with in-plane and out-of-plane two-dimensional scanning capability for confocal endoscopic in vivo imaging. , 2017, , .		0
29	Visualizing Epithelial Expression in Vertical and Horizontal Planes With Dual Axes Confocal Endomicroscope Using Compact Distal Scanner. IEEE Transactions on Medical Imaging, 2017, 36, 1482-1490.	5.4	14
30	Multimodal laser-based angioscopy for structural, chemical and biological imaging of atherosclerosis. Nature Biomedical Engineering, 2017, 1, .	11.6	38
31	Real-time fluorescence target/background (T/B) ratio calculation in multimodal endoscopy for detecting GI tract cancer. , 2017, , .		1
32	Neonatal acquisition of Clostridia species protects against colonization by bacterial pathogens. Science, 2017, 356, 315-319.	6.0	199
33	Toward real-time quantification of fluorescence molecular probes using target/background ratio for guiding biopsy and endoscopic therapy of esophageal neoplasia. Journal of Medical Imaging, 2017, 4, 1.	0.8	12
34	Detection of Sessile Serrated Adenomas in the Proximal Colon Using Wide-Field Fluorescence Endoscopy. Gastroenterology, 2017, 152, 1002-1013.e9.	0.6	49
35	Ultrasmall Paramagnetic Iron Oxide Nanoprobe Targeting Epidermal Growth Factor Receptor for In Vivo Magnetic Resonance Imaging of Hepatocellular Carcinoma. Bioconjugate Chemistry, 2017, 28, 2794-2803.	1.8	11
36	In vivo near-infrared imaging of ErbB2 expressing breast tumors with dual-axes confocal endomicroscopy using a targeted peptide. Scientific Reports, 2017, 7, 14404.	1.6	10

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37	Diagnostic and Interventional Optical Angioscopy in Ex Vivo Carotid Arteries. Operative Neurosurgery, 2017, 13, 36-46.	0.4	4
38	A CD44-specific peptide, RP-1, exhibits capacities of assisting diagnosis and predicting prognosis of gastric cancer. Oncotarget, 2017, 8, 30063-30076.	0.8	9
39	Three-dimensional side-view endomicroscope for tracking individual cells in vivo. Biomedical Optics Express, 2017, 8, 5533.	1.5	10
40	Axial beam scanning in multiphoton microscopy with MEMS-based actuator. Optics Express, 2017, 25, 2195.	1.7	13
41	An Electrostatic MEMS Translational Scanner with Large Out-of-Plane Stroke for Remote Axial-Scanning in Multi-Photon Microscopy. Micromachines, 2017, 8, 159.	1.4	16
42	Identification and validation of FGFR2 peptide for detection of early Barrett's neoplasia. Oncotarget, 2017, 8, 87095-87106.	0.8	15
43	Abstract 107: Laser Angioscopy Reveals Concealed Ulcers in Substenotic Carotid Plaques in Cryptogenic Stroke Patients: A Preclinical Study. Stroke, 2017, 48, .	1.0	1
44	Introduction to the BIOMED 2016 feature issue. Biomedical Optics Express, 2016, 7, 4415.	1.5	0
45	In vivo photoacoustic tomography of EGFR overexpressed in hepatocellular carcinoma mouse xenograft. Photoacoustics, 2016, 4, 43-54.	4.4	14
46	Better health, less spending: Redesigning the transition from pediatric to adult healthcare for youth with chronic illness. Healthcare, 2016, 4, 57-68.	0.6	35
47	Molecular endoscopy for targeted imaging in the digestive tract. The Lancet Gastroenterology and Hepatology, 2016, 1, 147-155.	3.7	40
48	Iron Uptake via DMT1 Integrates Cell Cycle with JAK-STAT3 Signaling to Promote Colorectal Tumorigenesis. Cell Metabolism, 2016, 24, 447-461.	7.2	168
49	Visualizing epithelial expression of EGFR in vivo with distal scanning side-viewing confocal endomicroscope. Scientific Reports, 2016, 6, 37315.	1.6	10
50	Overexpressed Claudin-1 Can Be Visualized Endoscopically inÂColonic Adenomas InÂVivo. Cellular and Molecular Gastroenterology and Hepatology, 2016, 2, 222-237.	2.3	36
51	Emerging trends in endoscopic imaging. Nature Reviews Gastroenterology and Hepatology, 2016, 13, 72-73.	8.2	16
52	Integrated monolithic 3D MEMS scanner for switchable real time vertical/horizontal cross-sectional imaging. Optics Express, 2016, 24, 2145.	1.7	43
53	Multimodal endoscope can quantify wide-field fluorescence detection of Barrettâ€™s neoplasia. Endoscopy, 2016, 48, A1-A13.	1.0	48
54	Multimodal Video Colonoscope for Targeted Wide-Field Detection of Nonpolypoid Colorectal Neoplasia. Gastroenterology, 2016, 150, 1084-1086.	0.6	18

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55	Design and Synthesis of Near-Infrared Peptide for in Vivo Molecular Imaging of HER2. Bioconjugate Chemistry, 2016, 27, 481-494.	1.8	46
56	Genomic similarity between gastroesophageal junction and esophageal Barrett's adenocarcinomas. Oncotarget, 2016, 7, 54867-54882.	0.8	14
57	Osteopontin (OPN/SPP1) isoforms collectively enhance tumor cell invasion and dissemination in esophageal adenocarcinoma. Oncotarget, 2015, 6, 22239-22257.	0.8	56
58	MEMS-based multiphoton endomicroscope for repetitive imaging of mouse colon. Biomedical Optics Express, 2015, 6, 3074.	1.5	35
59	A CD44 specific peptide developed by phage display for targeting gastric cancer. Biotechnology Letters, 2015, 37, 2311-2320.	1.1	21
60	Emerging optical methods for surveillance of Barrett's oesophagus. Gut, 2015, 64, 1816-1823.	6.1	63
61	EGFR Overexpressed in Colonic Neoplasia Can be Detected on Wide-Field Endoscopic Imaging. Clinical and Translational Gastroenterology, 2015, 6, e101.	1.3	47
62	Targeted therapy of colorectal neoplasia with rapamycin in peptide-labeled pegylated octadecyl lithocholate micelles. Journal of Controlled Release, 2015, 199, 114-121.	4.8	15
63	Modeling and Simulation of a Parametrically Resonant Micromirror With Duty-Cycled Excitation. Journal of Microelectromechanical Systems, 2014, 23, 1440-1453.	1.7	34
64	Dynamic imaging of gut functionâ€"allowing the blind to see. Nature Reviews Gastroenterology and Hepatology, 2014, 11, 584-586.	8.2	3
65	TGM2: A Cell Surface Marker in Esophageal Adenocarcinomas. Journal of Thoracic Oncology, 2014, 9, 872-881.	0.5	22
66	In vivo imaging using fluorescent antibodies to tumor necrosis factor predicts therapeutic response in Crohn's disease. Nature Medicine, 2014, 20, 313-318.	15.2	349
67	A three-degree-of-freedom thin-film PZT-actuated microactuator with large out-of-plane displacement. Journal of Micromechanics and Microengineering, 2014, 24, 075017.	1.5	19
68	2D resonant microscanner for dual axes confocal fluorescence endomicroscope. , 2014, , .		4
69	Large Stroke Vertical PZT Microactuator With High-Speed Rotational Scanning. Journal of Microelectromechanical Systems, 2014, 23, 256-258.	1.7	12
70	Barrett's Esophagus Translational Research Network (BETRNet): The Pivotal Role of Multi-institutional Collaboration in Esophageal Adenocarcinoma Research. Gastroenterology, 2014, 146, 1586-1590.	0.6	5
71	Vertical Cross-sectional Imaging of Colonic Dysplasia In Vivo With Multi-spectral Dual Axes Confocal Endomicroscopy. Gastroenterology, 2014, 146, 615-617.	0.6	22
72	Engineering Miniature Imaging Instruments. , 2014, , 835-852.		1

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73	Targeted Imaging of Esophageal Neoplasia with a Fluorescently Labeled Peptide: First-in-Human Results. Science Translational Medicine, 2013, 5, 184ra61.	5.8	155
74	In Vivo Molecular Imaging of Barrett's Esophagus With Confocal Laser Endomicroscopy. Gastroenterology, 2013, 145, 56-58.	0.6	27
75	Advancing the translation of optical imaging agents for clinical imaging. Biomedical Optics Express, 2013, 4, 160.	1.5	16
76	Targeted vertical cross-sectional imaging with handheld near-infrared dual axes confocal fluorescence endomicroscope. Biomedical Optics Express, 2013, 4, 322.	1.5	32
77	In vivo targeting of colonic dysplasia on fluorescence endoscopy with near-infrared octapeptide. Gut, 2013, 62, 395-403.	6.1	58
78	Targeted detection of murine colonic dysplasia in vivo with flexible multispectral scanning fiber endoscopy. Journal of Biomedical Optics, 2012, 17, 021103.	1.4	71
79	Multispectral Endoscopic Imaging of Colorectal Dysplasia In Vivo. Gastroenterology, 2012, 143, 1435-1437.	0.6	37
80	Near-infrared-labeled peptide multimer functions as phage mimic for high affinity, specific targeting of colonic adenomas in vivo (with videos). Gastrointestinal Endoscopy, 2012, 76, 1197-1206.e5.	0.5	35
81	Multimodal Imaging of Growth and Rapamycin-Induced Regression of Colonic Adenomas in Apc Mutation-Dependent Mouse. Translational Oncology, 2012, 5, 313-320.	1.7	6
82	In Vivo Multi-Spectral Wide-Field Fluorescence Detection of Dysplasia in the Mouse. Gastroenterology, 2011, 140, S-11.	0.6	2
83	Targeted imaging of colorectal dysplasia in living mice with fluorescence microendoscopy. Biomedical Optics Express, 2011, 2, 981.	1.5	13
84	In Vivo Fluorescence-Based Endoscopic Detection of Colon Dysplasia in the Mouse Using a Novel Peptide Probe. PLoS ONE, 2011, 6, e17384.	1.1	66
85	Future and advances in endoscopy. Journal of Biophotonics, 2011, 4, 471-481.	1.1	40
86	Molecular Imaging for Guiding Oncologic Prognosis and Therapy in Esophageal Adenocarcinoma. Hospital Practice (1995), 2011, 39, 97-106.	0.5	7
87	Targeted Imaging of Flat and Depressed Colonic Neoplasms. Gastrointestinal Endoscopy Clinics of North America, 2010, 20, 579-583.	0.6	7
88	Exogenous Molecular Probes for Targeted Imaging in Cancer: Focus on Multi-modal Imaging. Cancers, 2010, 2, 1251-1287.	1.7	76
89	Molecular Imaging in Gastrointestinal Endoscopy. Gastroenterology, 2010, 138, 828-833.e1.	0.6	129
90	Switching on the Light to See More Disease. Gastroenterology, 2010, 138, 2553-2554.	0.6	0

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91	Affinity Peptide for Targeted Detection of Dysplasia in Barrett's Esophagus. Gastroenterology, 2010, 139, 1472-1480.	0.6	92
92	Targeted, Multimodality PET-CT and Optical Imaging Platform for Visualizing Biological Function. Gastroenterology, 2010, 139, 1790-1791.	0.6	0
93	Detection of colonic inflammation with Fourier transform infrared spectroscopy using a flexible silver halide fiber. Biomedical Optics Express, 2010, 1, 1014.	1.5	13
94	Large displacement vertical translational actuator based on piezoelectric thin films. Journal of Micromechanics and Microengineering, 2010, 20, 075016.	1.5	61
95	Fibered Confocal Microscopy of Bladder Tumors: An ex Vivo Study. Journal of Endourology, 2009, 23, 197-202.	1.1	44
96	Use of an endoscope-compatible probe to detect colonic dysplasia with Fourier transform infrared spectroscopy. Journal of Biomedical Optics, 2009, 14, 044006.	1.4	20
97	Targeted Endoscopic Imaging. Gastrointestinal Endoscopy Clinics of North America, 2009, 19, 283-298.	0.6	25
98	Fiber optic FTIR instrument for in vivo detection of colonic neoplasia. Proceedings of SPIE, 2009, , .	0.8	1
99	Detection of colonic dysplasia in vivo using a targeted heptapeptide and confocal microendoscopy. Nature Medicine, 2008, 14, 454-458.	15.2	444
100	Three-dimensional in vivo imaging by a handheld dual-axes confocal microscope. Optics Express, 2008, 16, 7224.	1.7	79
101	Efficient rejection of scattered light enables deep optical sectioning in turbid media with low-numerical-aperture optics in a dual-axis confocal architecture. Journal of Biomedical Optics, 2008, 13, 034020.	1.4	52
102	In vivo biomarkers for targeting colorectal neoplasms. Cancer Biomarkers, 2008, 4, 329-340.	0.8	5
103	Detection of endogenous biomolecules in Barrett's esophagus by Fourier transform infrared spectroscopy. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 15864-15869.	3.3	88
104	Miniature near-infrared dual-axes confocal microscope utilizing a two-dimensional microelectromechanical systems scanner. Optics Letters, 2007, 32, 256.	1.7	101
105	Improved rejection of multiply scattered photons in confocal microscopy using dual-axes architecture. Optics Letters, 2007, 32, 1674.	1.7	37
106	Functional Imaging of Colonic Mucosa With a Fibered Confocal Microscope for Real-Time In Vivo Pathology. Clinical Gastroenterology and Hepatology, 2007, 5, 1300-1305.	2.4	116
107	Dual-axes confocal reflectance microscope for distinguishing colonic neoplasia. Journal of Biomedical Optics, 2006, 11, 054019.	1.4	51
108	Confocal fluorescence microscope with dual-axis architecture and biaxial postobjective scanning. Journal of Biomedical Optics, 2004, 9, 735.	1.4	64

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109	Dual-axis confocal microscope for high-resolution in vivo imaging. Optics Letters, 2003, 28, 414.	1.7	146
110	Dual-axes confocal microscopy with post-objective scanning and low-coherence heterodyne detection. Optics Letters, 2003, 28, 1915.	1.7	63
111	Mathematical model of fluorescence endoscopic image formation. Applied Optics, 1998, 37, 8103.	2.1	10
112	Detection of Barrett's Neoplasia with Near-Infrared Fluorescent Heterodimeric Peptide: Feasibility Results from a Phase 1 Study. SSRN Electronic Journal, 0, , .	0.4	0