Brian W Pogue

List of Publications by Citations

521 papers	18,312 citations	68 h-index	117 g-index
661 ext. papers	21,708 ext. citations	4.5 avg, IF	6.67 L-index

#	Paper	IF	Citations
521	Imaging and photodynamic therapy: mechanisms, monitoring, and optimization. *Chemical Reviews*, **2010**, 110, 2795-838	68.1	1670
520	Review of tissue simulating phantoms for optical spectroscopy, imaging and dosimetry. *Journal of Biomedical Optics*, **2006**, 11, 041102	3.5	443
519	Pre-clinical whole-body fluorescence imaging: Review of instruments, methods and applications. *Journal of Photochemistry and Photobiology B: Biology*, **2010**, 98, 77-94	6.7	423
518	Near infrared optical tomography using NIRFAST: Algorithm for numerical model and image reconstruction. *Communications in Numerical Methods in Engineering*, **2008**, 25, 711-732		396
517	Quantitative hemoglobin tomography with diffuse near-infrared spectroscopy: pilot results in the breast. *Radiology*, **2001**, 218, 261-6	20.5	377
516	Assessing the future of diffuse optical imaging technologies for breast cancer management. *Medical Physics*, **2008**, 35, 2443-51	4.4	232
515	Phase I/II study of verteporfin photodynamic therapy in locally advanced pancreatic cancer. *British Journal of Cancer*, **2014**, 110, 1698-704	8.7	230
514	Electromagnetic breast imaging: results of a pilot study in women with abnormal mammograms. *Radiology*, **2007**, 243, 350-9	20.5	229
513	Interpreting hemoglobin and water concentration, oxygen saturation, and scattering measured in vivo by near-infrared breast tomography. *Proceedings of the National Academy of Sciences of the United States of America*, **2003**, 100, 12349-54	11.5	215
512	Review of fluorescence guided surgery systems: identification of key performance capabilities beyond indocyanine green imaging. *Journal of Biomedical Optics*, **2016**, 21, 80901	3.5	212
511	Coregistered fluorescence-enhanced tumor resection of malignant glioma: relationships between δ-aminolevulinic acid-induced protoporphyrin IX fluorescence, magnetic resonance imaging enhancement, and neuropathological parameters. Clinical article. *Journal of Neurosurgery*, **2011**, 114, 595-603	3.2	207
510	Spatially variant regularization improves diffuse optical tomography. *Applied Optics*, **1999**, 38, 2950-61	1.7	199
509	Tutorial on diffuse light transport. *Journal of Biomedical Optics*, **2008**, 13, 041302	3.5	195
508	Multiwavelength three-dimensional near-infrared tomography of the breast: initial simulation, phantom, and clinical results. *Applied Optics*, **2003**, 42, 135-45	1.7	193
507	Imaging breast adipose and fibroglandular tissue molecular signatures by using hybrid MRI-guided near-infrared spectral tomography. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 8828-33	11.5	186
506	Mathematical model for time-resolved and frequency-domain fluorescence spectroscopy in biological tissues. *Applied Optics*, **1994**, 33, 1963-74	1.7	182
505	Optical image reconstruction using frequency-domain data: simulations and experiments. *Journal of the Optical Society of America A: Optics and Image Science, and Vision*, **1996**, 13, 253	1.8	177

504	Vascular and cellular targeting for photodynamic therapy. *Critical Reviews in Eukaryotic Gene Expression*, **2006**, 16, 279-305	1.3	174
503	A photoactivable multi-inhibitor nanoliposome for tumour control and simultaneous inhibition of treatment escape pathways. *Nature Nanotechnology*, **2016**, 11, 378-87	28.7	169
502	Image-guided diffuse optical fluorescence tomography implemented with Laplacian-type regularization. *Optics Express*, **2007**, 15, 4066-82	3.3	165
501	Characterization of hemoglobin, water, and NIR scattering in breast tissue: analysis of intersubject variability and menstrual cycle changes. *Journal of Biomedical Optics*, **2004**, 9, 541-52	3.5	165
500	Structural information within regularization matrices improves near infrared diffuse optical tomography. *Optics Express*, **2007**, 15, 8043-58	3.3	144
499	Automated region detection based on the contrast-to-noise ratio in near-infrared tomography. *Applied Optics*, **2004**, 43, 1053-62	1.7	144
498	Initial assessment of a simple system for frequency domain diffuse optical tomography. *Physics in Medicine and Biology*, **1995**, 40, 1709-29	3.8	142
497	Spectrally resolved bioluminescence optical tomography. *Optics Letters*, **2006**, 31, 365-7	3	139
496	Frequency-domain optical absorption spectroscopy of finite tissue volumes using diffusion theory. *Physics in Medicine and Biology*, **1994**, 39, 1157-80	3.8	136
495	Tumor vascular permeabilization by vascular-targeting photosensitization: effects, mechanism, and therapeutic implications. *Clinical Cancer Research*, **2006**, 12, 917-23	12.9	133
494	Synergistic enhancement of carboplatin efficacy with photodynamic therapy in a three-dimensional model for micrometastatic ovarian cancer. *Cancer Research*, **2010**, 70, 9319-28	10.1	132
493	Liposomal delivery of photosensitising agents. *Expert Opinion on Drug Delivery*, **2005**, 2, 477-87	8	127
492	Three-dimensional optical tomography: resolution in small-object imaging. *Applied Optics*, **2003**, 42, 3117-28	1.7	125
491	A parallel-detection frequency-domain near-infrared tomography system for hemoglobin imaging of the breast in vivo. *Review of Scientific Instruments*, **2001**, 72, 1817	1.7	124
490	Imaging of fluorescent yield and lifetime from multiply scattered light reemitted from random media. *Applied Optics*, **1997**, 36, 2260-72	1.7	121
489	Numerical modelling and image reconstruction in diffuse optical tomography. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2009**, 367, 3073-93	3	118
488	Magnetic resonance-coupled fluorescence tomography scanner for molecular imaging of tissue. *Review of Scientific Instruments*, **2008**, 79, 064302	1.7	116
487	Image-guided optical spectroscopy provides molecular-specific information in vivo: MRI-guided spectroscopy of breast cancer hemoglobin, water, and scatterer size. *Optics Letters*, **2007**, 32, 933-5	3	112

486	Fast segmentation and high-quality three-dimensional volume mesh creation from medical images for diffuse optical tomography. *Journal of Biomedical Optics*, **2013**, 18, 86007	3.5	111
485	Combining near-infrared tomography and magnetic resonance imaging to study in vivo breast tissue: implementation of a Laplacian-type regularization to incorporate magnetic resonance structure. *Journal of Biomedical Optics*, **2005**, 10, 051504	3.5	111
484	Fiber-optic bundle design for quantitative fluorescence measurement from tissue. *Applied Optics*, **1998**, 37, 7429-36	1.7	111
483	Weight-matrix structured regularization provides optimal generalized least-squares estimate in diffuse optical tomography. *Medical Physics*, **2007**, 34, 2085-98	4.4	110
482	Comparison of imaging geometries for diffuse optical tomography of tissue. *Optics Express*, **1999**, 4, 270-86	3.3	109
481	High-resolution near-infrared tomographic imaging simulations of the rat cranium by use of a priori magnetic resonance imaging structural information. *Optics Letters*, **1998**, 23, 1716-8	3	107
480	Spectroscopic diffuse optical tomography for the quantitative assessment of hemoglobin concentration and oxygen saturation in breast tissue. *Applied Optics*, **1999**, 38, 5480-90	1.7	107
479	Optical dosimetry of radiotherapy beams using Cherenkov radiation: the relationship between light emission and dose. *Physics in Medicine and Biology*, **2014**, 59, 3789-811	3.8	100
478	Microscopic lymph node tumor burden quantified by macroscopic dual-tracer molecular imaging. *Nature Medicine*, **2014**, 20, 1348-53	50.5	100
477	Electromagnetic breast imaging: average tissue property values in women with negative clinical findings. *Radiology*, **2004**, 231, 571-80	20.5	99
476	Near-infrared characterization of breast tumors in vivo using spectrally-constrained reconstruction. *Technology in Cancer Research and Treatment*, **2005**, 4, 513-26	2.7	96
475	An imaging-based platform for high-content, quantitative evaluation of therapeutic response in 3D tumour models. *Scientific Reports*, **2014**, 4, 3751	4.9	94
474	Evaluation of breast tumor response to neoadjuvant chemotherapy with tomographic diffuse optical spectroscopy: case studies of tumor region-of-interest changes. *Radiology*, **2009**, 252, 551-60	20.5	92
473	Noninvasive Raman tomographic imaging of canine bone tissue. *Journal of Biomedical Optics*, **2008**, 13, 020506	3.5	92
472	Combining vascular and cellular targeting regimens enhances the efficacy of photodynamic therapy. *International Journal of Radiation Oncology Biology Physics*, **2005**, 61, 1216-26	4	92
471	Simultaneous reconstruction of optical absorption and scattering maps in turbid media from near-infrared frequency-domain data. *Optics Letters*, **1995**, 20, 2128-30	3	87
470	Review of Neurosurgical Fluorescence Imaging Methodologies. *IEEE Journal of Selected Topics in Quantum Electronics*, **2010**, 16, 493-505	3.8	85
469	Microwave image reconstruction utilizing log-magnitude and unwrapped phase to improve high-contrast object recovery. *IEEE Transactions on Medical Imaging*, **2001**, 20, 104-16	11.7	85

468	In vivo quantification of tumor receptor binding potential with dual-reporter molecular imaging. *Molecular Imaging and Biology*, **2012**, 14, 584-92	3.8	82
467	Spectrally constrained chromophore and scattering near-infrared tomography provides quantitative and robust reconstruction. *Applied Optics*, **2005**, 44, 1858-69	1.7	79
466	Estimation of oxygen distribution in RIF-1 tumors by diffusion model-based interpretation of pimonidazole hypoxia and eppendorf measurements. *Radiation Research*, **2001**, 155, 15-25	3.1	76
465	Photobleaching-based dosimetry predicts deposited dose in ALA-PpIX PDT of rodent esophagus. *Photochemistry and Photobiology*, **2007**, 83, 738-48	3.6	75
464	Multiepitope HER2 targeting enhances photoimmunotherapy of HER2-overexpressing cancer cells with pyropheophorbide-a immunoconjugates. *Cancer Research*, **2005**, 65, 6371-9	10.1	74
463	Predicting Responses to Neoadjuvant Chemotherapy in Breast Cancer: ACRIN 6691 Trial of Diffuse Optical Spectroscopic Imaging. *Cancer Research*, **2016**, 76, 5933-5944	10.1	73
462	Three-dimensional simulation of near-infrared diffusion in tissue: boundary condition and geometry analysis for finite-element image reconstruction. *Applied Optics*, **2001**, 40, 588-600	1.7	73
461	Cerenkov emission induced by external beam radiation stimulates molecular fluorescence. *Medical Physics*, **2011**, 38, 4127-32	4.4	72
460	Magnetic resonance-guided near-infrared tomography of the breast. *Review of Scientific Instruments*, **2004**, 75, 5262-5270	1.7	72
459	Multispectral near-infrared tomography: a case study in compensating for water and lipid content in hemoglobin imaging of the breast. *Journal of Biomedical Optics*, **2002**, 7, 72-9	3.5	72
458	Near-infrared imaging in the small animal brain: optimization of fiber positions. *Journal of Biomedical Optics*, **2003**, 8, 102-10	3.5	69
457	Quantitative in vivo cell-surface receptor imaging in oncology: kinetic modeling and paired-agent principles from nuclear medicine and optical imaging. *Physics in Medicine and Biology*, **2015**, 60, R239-69	3.8	68
456	Projection imaging of photon beams by the Čerenkov effect. *Medical Physics*, **2013**, 40, 012101	4.4	68
455	Image analysis methods for diffuse optical tomography. *Journal of Biomedical Optics*, **2006**, 11, 33001	3.5	68
454	Blood flow dynamics after photodynamic therapy with verteporfin in the RIF-1 tumor. *Radiation Research*, **2003**, 160, 452-9	3.1	68
453	Dynamic dual-tracer MRI-guided fluorescence tomography to quantify receptor density in vivo. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 9025-30	11.5	67
452	A microcomputed tomography guided fluorescence tomography system for small animal molecular imaging. *Review of Scientific Instruments*, **2009**, 80, 043701	1.7	67
451	Cherenkov video imaging allows for the first visualization of radiation therapy in real time. *International Journal of Radiation Oncology Biology Physics*, **2014**, 89, 615-22	4	66

450	Initial studies of in vivo absorbing and scattering heterogeneity in near-infrared tomographic breast imaging. *Optics Letters*, **2001**, 26, 822-4	3	66
449	Subsurface diffuse optical tomography can localize absorber and fluorescent objects but recovered image sensitivity is nonlinear with depth. *Applied Optics*, **2007**, 46, 1669-78	1.7	65
448	Photodynamic therapy with verteporfin in the radiation-induced fibrosarcoma-1 tumor causes enhanced radiation sensitivity. *Cancer Research*, **2003**, 63, 1025-33	10.1	65
447	Pretreatment photosensitizer dosimetry reduces variation in tumor response. *International Journal of Radiation Oncology Biology Physics*, **2006**, 64, 1211-20	4	64
446	Three-dimensional Čerenkov tomography of energy deposition from ionizing radiation beams. *Optics Letters*, **2013**, 38, 634-6	3	62
445	The effects of internal refractive index variation in near-infrared optical tomography: a finite element modelling approach. *Physics in Medicine and Biology*, **2003**, 48, 2713-27	3.8	62
444	Spectral discrimination of breast pathologies in situ using spatial frequency domain imaging. *Breast Cancer Research*, **2013**, 15, R61	8.3	60
443	Projection imaging of photon beams using Čerenkov-excited fluorescence. *Physics in Medicine and Biology*, **2013**, 58, 601-19	3.8	60
442	Tumor angiogenesis change estimated by using diffuse optical spectroscopic tomography: demonstrated correlation in women undergoing neoadjuvant chemotherapy for invasive breast cancer?. *Radiology*, **2011**, 259, 365-74	20.5	60
441	Time-gated Cherenkov emission spectroscopy from linear accelerator irradiation of tissue phantoms. *Optics Letters*, **2012**, 37, 1193-5	3	59
440	Spectral priors improve near-infrared diffuse tomography more than spatial priors. *Optics Letters*, **2005**, 30, 1968-70	3	58
439	In vivo near-infrared spectral detection of pressure-induced changes in breast tissue. *Optics Letters*, **2003**, 28, 1212-4	3	56
438	PDT dose parameters impact tumoricidal durability and cell death pathways in a 3D ovarian cancer model. *Photochemistry and Photobiology*, **2013**, 89, 942-52	3.6	55
437	Sub-diffusive scattering parameter maps recovered using wide-field high-frequency structured light imaging. *Biomedical Optics Express*, **2014**, 5, 3376-90	3.5	55
436	Predicting breast tumor response to neoadjuvant chemotherapy with diffuse optical spectroscopic tomography prior to treatment. *Clinical Cancer Research*, **2014**, 20, 6006-15	12.9	55
435	Review of methods for intraoperative margin detection for breast conserving surgery. *Journal of Biomedical Optics*, **2018**, 23, 1-19	3.5	55
434	In vivo quantitative imaging of normal and cancerous breast tissue using broadband diffuse optical tomography. *Medical Physics*, **2010**, 37, 3715-24	4.4	54
433	In vivo hemoglobin and water concentrations, oxygen saturation, and scattering estimates from near-infrared breast tomography using spectral reconstruction. *Academic Radiology*, **2006**, 13, 195-202	4.3	54

432	Regulatory Aspects of Optical Methods and Exogenous Targets for Cancer Detection. *Cancer Research*, **2017**, 77, 2197-2206	10.1	52
431	A GAMOS plug-in for GEANT4 based Monte Carlo simulation of radiation-induced light transport in biological media. *Biomedical Optics Express*, **2013**, 4, 741-59	3.5	52
430	Spectrally resolved bioluminescence tomography using the reciprocity approach. *Medical Physics*, **2008**, 35, 4863-71	4.4	52
429	Analysis of the heterogeneity of pO2 dynamics during photodynamic therapy with verteporfin. *Photochemistry and Photobiology*, **2001**, 74, 700-6	3.6	52
428	Revisiting photodynamic therapy dosimetry: reductionist & surrogate approaches to facilitate clinical success. *Physics in Medicine and Biology*, **2016**, 61, R57-89	3.8	52
427	Superficial dosimetry imaging based on Čerenkov emission for external beam radiotherapy with megavoltage x-ray beam. *Medical Physics*, **2013**, 40, 101914	4.4	51
426	Approximation of Mie scattering parameters in near-infrared tomography of normal breast tissue in vivo. *Journal of Biomedical Optics*, **2005**, 10, 051704	3.5	51
425	Cherenkov radiation fluence estimates in tissue for molecular imaging and therapy applications. *Physics in Medicine and Biology*, **2015**, 60, 6701-18	3.8	50
424	A theoretical study of light fractionation and dose-rate effects in photodynamic therapy. *Radiation Research*, **1997**, 147, 551-9	3.1	50
423	Review of biomedical Čerenkov luminescence imaging applications. *Biomedical Optics Express*, **2015**, 6, 3053-65	3.5	49
422	Superficial dosimetry imaging of Čerenkov emission in electron beam radiotherapy of phantoms. *Physics in Medicine and Biology*, **2013**, 58, 5477-93	3.8	49
421	Contrast-detail analysis for detection and characterization with near-infrared diffuse tomography. *Medical Physics*, **2000**, 27, 2693-700	4.4	49
420	Nanoparticle uptake in tumors is mediated by the interplay of vascular and collagen density with interstitial pressure. *Nanomedicine: Nanotechnology, Biology, and Medicine*, **2013**, 9, 151-8	6	47
419	Techniques for fluorescence detection of protoporphyrin IX in skin cancers associated with photodynamic therapy. *Photonics & Lasers in Medicine*, **2013**, 2, 287-303		47
418	Effect of tumor host microenvironment on photodynamic therapy in a rat prostate tumor model. *Clinical Cancer Research*, **2005**, 11, 720-7	12.9	47
417	Early-photon fluorescence tomography: spatial resolution improvements and noise stability considerations. *Journal of the Optical Society of America A: Optics and Image Science, and Vision*, **2009**, 26, 1444-57	1.8	46
416	In Vivo NADH Fluorescence Monitoring as an Assay for Cellular Damage in Photodynamic Therapy¶. *Photochemistry and Photobiology*, **2001**, 74, 817-824	3.6	46
415	Improved tumor contrast achieved by single time point dual-reporter fluorescence imaging. *Journal of Biomedical Optics*, **2012**, 17, 066001	3.5	45

414	Fluorescent affibody peptide penetration in glioma margin is superior to full antibody. *PLoS ONE*, **2013**, 8, e60390	3.7	44
413	Calibration of near-infrared frequency-domain tissue spectroscopy for absolute absorption coefficient quantitation in neonatal head-simulating phantoms. *Journal of Biomedical Optics*, **2000**, 5, 185-93	3.5	44
412	Next-generation Raman tomography instrument for non-invasive in vivo bone imaging. *Biomedical Optics Express*, **2015**, 6, 793-806	3.5	43
411	Fluorescence imaging in vivo: raster scanned point-source imaging provides more accurate quantification than broad beam geometries. *Technology in Cancer Research and Treatment*, **2004**, 3, 15-21	2.7	43
410	Endoscopic, rapid near-infrared optical tomography. *Optics Letters*, **2006**, 31, 2876-8	3	42
409	Image-Based Quantification of Benzoporphyrin Derivative Uptake, Localization, and Photobleaching in 3D Tumor Models, for Optimization of PDT Parameters. *Theranostics*, **2012**, 2, 827-39	12.1	41
408	Photodynamic Priming Mitigates Chemotherapeutic Selection Pressures and Improves Drug Delivery. *Cancer Research*, **2018**, 78, 558-571	10.1	41
407	Toxicity and Pharmacokinetic Profile for Single-Dose Injection of ABY-029: a Fluorescent Anti-EGFR Synthetic Affibody Molecule for Human Use. *Molecular Imaging and Biology*, **2017**, 19, 512-521	3.8	40
406	Imaging tumor variation in response to photodynamic therapy in pancreatic cancer xenograft models. *International Journal of Radiation Oncology Biology Physics*, **2010**, 76, 251-9	4	40
405	Assessment of photosensitizer dosimetry and tissue damage assay for photodynamic therapy in advanced-stage tumors. *Photochemistry and Photobiology*, **2004**, 79, 520-5	3.6	40
404	Perspective review of what is needed for molecular-specific fluorescence-guided surgery. *Journal of Biomedical Optics*, **2018**, 23, 1-9	3.5	40
403	Photophysical Properties of Tin Ethyl Etiopurpurin I (SnET2) and Tin Octaethylbenzochlorin (SnOEBC) in Solution and Bound to Albumin. *Photochemistry and Photobiology*, **1998**, 68, 809-815	3.6	39
402	Cherenkov-excited luminescence scanned imaging. *Optics Letters*, **2015**, 40, 827-30	3	38
401	Maps of in vivo oxygen pressure with submillimetre resolution and nanomolar sensitivity enabled by Cherenkov-excited luminescence scanned imaging. *Nature Biomedical Engineering*, **2018**, 2, 254-264	19	38
400	Image analysis for discrimination of cervical neoplasia. *Journal of Biomedical Optics*, **2000**, 5, 72-82	3.5	38
399	Dual-channel red/blue fluorescence dosimetry with broadband reflectance spectroscopic correction measures protoporphyrin IX production during photodynamic therapy of actinic keratosis. *Journal of Biomedical Optics*, **2014**, 19, 75002	3.5	37
398	MRI-coupled fluorescence tomography quantifies EGFR activity in brain tumors. *Academic Radiology* , **2010**, 17, 271-6	4.3	37
397	Critical computational aspects of near infrared circular tomographic imaging: Analysis of measurement number, mesh resolution and reconstruction basis. *Optics Express*, **2006**, 14, 6113-27	3.3	37

396	Wide-field quantitative imaging of tissue microstructure using sub-diffuse spatial frequency domain imaging. *Optica*, **2016**, 3, 613-621	8.6	37
395	Quantitative in vivo immunohistochemistry of epidermal growth factor receptor using a receptor concentration imaging approach. *Cancer Research*, **2014**, 74, 7465-74	10.1	36
394	System analysis of spatial frequency domain imaging for quantitative mapping of surgically resected breast tissues. *Journal of Biomedical Optics*, **2013**, 18, 036012	3.5	36
393	Absorbed photodynamic dose from pulsed versus continuous wave light examined with tissue-simulating dosimeters. *Applied Optics*, **1997**, 36, 7257-69	1.7	36
392	Protoporphyrin IX fluorescence photobleaching increases with the use of fractionated irradiation in the esophagus. *Journal of Biomedical Optics*, **2008**, 13, 034009	3.5	36
391	Protoporphyrin IX level correlates with number of mitochondria, but increase in production correlates with tumor cell size. *Photochemistry and Photobiology*, **2006**, 82, 1334-41	3.6	36
390	Quantitative analysis of near-infrared tomography: sensitivity to the tissue-simulating precalibration phantom. *Journal of Biomedical Optics*, **2003**, 8, 308-15	3.5	36
389	Review of fluorescence guided surgery visualization and overlay techniques. *Biomedical Optics Express*, **2015**, 6, 3765-82	3.5	35
388	Framework for hyperspectral image processing and quantification for cancer detection during animal tumor surgery. *Journal of Biomedical Optics*, **2015**, 20, 126012	3.5	35
387	Deferoxamine iron chelation increases delta-aminolevulinic acid induced protoporphyrin IX in xenograft glioma model. *Photochemistry and Photobiology*, **2010**, 86, 471-5	3.6	35
386	Scatter spectroscopic imaging distinguishes between breast pathologies in tissues relevant to surgical margin assessment. *Clinical Cancer Research*, **2012**, 18, 6315-25	12.9	35
385	Analysis of acetic acid-induced whitening of high-grade squamous intraepithelial lesions. *Journal of Biomedical Optics*, **2001**, 6, 397-403	3.5	35
384	Comparing desferrioxamine and light fractionation enhancement of ALA-PpIX photodynamic therapy in skin cancer. *British Journal of Cancer*, **2016**, 115, 805-13	8.7	34
383	A digital x-ray tomosynthesis coupled near infrared spectral tomography system for dual-modality breast imaging. *Optics Express*, **2012**, 20, 19125-36	3.3	34
382	Pulsed-light imaging for fluorescence guided surgery under normal room lighting. *Optics Letters*, **2013**, 38, 3249-52	3	34
381	Real-time in vivo Cherenkoscopy imaging during external beam radiation therapy. *Journal of Biomedical Optics*, **2013**, 18, 110504	3.5	34
380	Near-infrared tomography of breast cancer hemoglobin, water, lipid, and scattering using combined frequency domain and cw measurement. *Optics Letters*, **2010**, 35, 82-4	3	34
379	Čerenkov radiation emission and excited luminescence (CREL) sensitivity during external beam radiation therapy: Monte Carlo and tissue oxygenation phantom studies. *Biomedical Optics Express*, **2012**, 3, 2381-94	3.5	34

378	Magnetic-resonance-imaging-coupled broadband near-infrared tomography system for small animal brain studies. *Applied Optics*, **2005**, 44, 2177-88	1.7	34
377	Tumor PO(2) changes during photodynamic therapy depend upon photosensitizer type and time after injection. *Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology*, **2002**, 132, 177-84	2.6	34
376	Contrast-detail analysis characterizing diffuse optical fluorescence tomography image reconstruction. *Journal of Biomedical Optics*, **2005**, 10, 050501	3.5	34
375	Cherenkov imaging method for rapid optimization of clinical treatment geometry in total skin electron beam therapy. *Medical Physics*, **2016**, 43, 993-1002	4.4	34
374	Multichannel diffuse optical Raman tomography for bone characterization in vivo: a phantom study. *Biomedical Optics Express*, **2012**, 3, 2299-305	3.5	33
373	Fluorescence tomography characterization for sub-surface imaging with protoporphyrin IX. *Optics Express*, **2008**, 16, 8581-93	3.3	33
372	Cherenkoscopy based patient positioning validation and movement tracking during post-lumpectomy whole breast radiation therapy. *Physics in Medicine and Biology*, **2015**, 60, L1-14	3.8	32
371	Cherenkov excited fluorescence tomography using external beam radiation. *Optics Letters*, **2013**, 38, 1364-6	3	32
370	Imaging targeted-agent binding in vivo with two probes. *Journal of Biomedical Optics*, **2010**, 15, 030513	3.5	32
369	Image-guided Raman spectroscopic recovery of canine cortical bone contrast in situ. *Optics Express*, **2008**, 16, 12190-200	3.3	32
368	Disparity between prostate tumor interior versus peripheral vasculature in response to verteporfin-mediated vascular-targeting therapy. *International Journal of Cancer*, **2008**, 123, 695-701	7.5	32
367	A boundary element approach for image-guided near-infrared absorption and scatter estimation. *Medical Physics*, **2007**, 34, 4545-57	4.4	32
366	Improved quantification of small objects in near-infrared diffuse optical tomography. *Journal of Biomedical Optics*, **2004**, 9, 1161-71	3.5	32
365	Fluorescent Affibody Molecule Administered In Vivo at a Microdose Level Labels EGFR Expressing Glioma Tumor Regions. *Molecular Imaging and Biology*, **2017**, 19, 41-48	3.8	31
364	Direct regularization from co-registered anatomical images for MRI-guided near-infrared spectral tomographic image reconstruction. *Biomedical Optics Express*, **2015**, 6, 3618-30	3.5	31
363	Implicit and explicit prior information in near-infrared spectral imaging: accuracy, quantification and diagnostic value. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2011**, 369, 4531-57	3	31
362	A roadmap for the clinical implementation of optical-imaging biomarkers. *Nature Biomedical Engineering*, **2019**, 3, 339-353	19	30
361	Impact of treatment response metrics on photodynamic therapy planning and outcomes in a three-dimensional model of ovarian cancer. *Journal of Biomedical Optics*, **2013**, 18, 098004	3.5	30

360	Oxygen tomography by Čerenkov-excited phosphorescence during external beam irradiation. *Journal of Biomedical Optics*, **2013**, 18, 50503	3.5	29
359	Noninvasive fluorescence monitoring of protoporphyrin IX production and clinical outcomes in actinic keratoses following short-contact application of 5-aminolevulinate. *Journal of Biomedical Optics*, **2010**, 15, 051607	3.5	29
358	Quantitative Cherenkov emission spectroscopy for tissue oxygenation assessment. *Optics Express*, **2012**, 20, 5133-42	3.3	29
357	Methodology development for three-dimensional MR-guided near infrared spectroscopy of breast tumors. *Optics Express*, **2008**, 16, 17903	3.3	29
356	Wavelength band optimization in spectral near-infrared optical tomography improves accuracy while reducing data acquisition and computational burden. *Journal of Biomedical Optics*, **2008**, 13, 054037	3.5	29
355	Simultaneous Fluorescent Markers for Perfusion, Protoporphyrin Metabolism, and EGFR Expression for Optically Guided Identification of Orthotopic Glioma. *Clinical Cancer Research*, **2017**, 23, 2203-2212	12.9	28
354	Imaging of glioma tumor with endogenous fluorescence tomography. *Journal of Biomedical Optics*, **2009**, 14, 030501	3.5	28
353	Image reconstruction of effective Mie scattering parameters of breast tissue in vivo with near-infrared tomography. *Journal of Biomedical Optics*, **2006**, 11, 041106	3.5	28
352	Breast deformation modelling for image reconstruction in near infrared optical tomography. *Physics in Medicine and Biology*, **2004**, 49, 1131-45	3.8	27
351	Quantification of Oxygen Depletion During FLASH Irradiation In Vitro and In Vivo. *International Journal of Radiation Oncology Biology Physics*, **2021**, 111, 240-248	4	27
350	A photobiological and photophysical-based study of phototoxicity of two chlorins. *Cancer Research*, **2001**, 61, 717-24	10.1	27
349	Model-resolution-based basis pursuit deconvolution improves diffuse optical tomographic imaging. *IEEE Transactions on Medical Imaging*, **2014**, 33, 891-901	11.7	26
348	Collagen Complexity Spatially Defines Microregions of Total Tissue Pressure in Pancreatic Cancer. *Scientific Reports*, **2017**, 7, 10093	4.9	26
347	Video-rate optical dosimetry and dynamic visualization of IMRT and VMAT treatment plans in water using Cherenkov radiation. *Medical Physics*, **2014**, 41, 062102	4.4	26
346	Comparing implementations of magnetic-resonance-guided fluorescence molecular tomography for diagnostic classification of brain tumors. *Journal of Biomedical Optics*, **2010**, 15, 051602	3.5	26
345	Developments in quantitative oxygen-saturation imaging of breast tissue in vivo using multispectral near-infrared tomography. *Antioxidants and Redox Signaling*, **2007**, 9, 1143-56	8.4	26
344	Camera selection for real-time in vivo radiation treatment verification systems using Cherenkov imaging. *Medical Physics*, **2015**, 42, 994-1004	4.4	25
343	High vascular delivery of EGF, but low receptor binding rate is observed in AsPC-1 tumors as compared to normal pancreas. *Molecular Imaging and Biology*, **2012**, 14, 472-9	3.8	25

342	Dual-channel imaging system for singlet oxygen and photosensitizer for PDT. *Biomedical Optics Express*, **2011**, 2, 1233-42	3.5	25
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