# Bruce J Tromberg

List of Publications by Year
in descending order



| 100 | 5,348 | 117625 | 85541 |
|---|---|---|---|
| papers | citations | 34 h-index | 71 g-index |

| 100 | 100 | 100 | 5418 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Quantitative measurement of optical properties and Hb concentration in a rodent model of inflammatory Meibomian gland dysfunction using spatial frequency domain imaging. Biomedical Optics Express, 2022, 13, 1261. | 2.9 | 0 |
| 2 | Characterizing tourniquet induced hemodynamics during total knee arthroplasty using diffuse optical spectroscopy. Journal of Orthopaedic Research, 2022, , . | 2.3 | 1 |
| 3 | Diffuse optical spectroscopic method for tissue and body composition assessment. Journal of Biomedical Optics, 2022, 27, . | 2.6 | 0 |
| 4 | Remote Digital Monitoring for Medical Product Development. Clinical and Translational Science, 2021, 14, 94-101. | 3.1 | 14 |
| 5 | Lipid remodeling in response to methionine stress in MDA-MBA-468 triple-negative breast cancer cells. Journal of Lipid Research, 2021, 62, 100056. | 4.2 | 10 |
| 6 | Breast cancer differential diagnosis using diffuse optical spectroscopic imaging and regression with z-score normalized data. Journal of Biomedical Optics, 2021, 26, . | 2.6 | 5 |
| 7 | High-speed quantitative optical imaging of absolute metabolism in the rat cortex. Neurophotonics, 2021, 8, 025001. | 3.3 | 5 |
| 8 | Multi-modal diffuse optical spectroscopy for high-speed monitoring and wide-area mapping of tissue optical properties and hemodynamics. Journal of Biomedical Optics, 2021, 26, . | 2.6 | 3 |
| 9 | Dissociation of Cerebral Blood Flow and Femoral Artery Blood Pressure Pulsatility After Cardiac Arrest and Resuscitation in a Rodent Model: Implications for Neurological Recovery. Journal of the American Heart Association, 2020, 9, e012691. | 3.7 | 8 |
| 10 | Rapid Scaling Up of Covid-19 Diagnostic Testing in the United States â€" The NIH RADx Initiative. New England Journal of Medicine, 2020, 383, 1071-1077. | 27.0 | 182 |
| 11 | Kinetic Analysis of Lipid Metabolism in Breast Cancer Cells via Nonlinear Optical Microscopy. Biophysical Journal, 2020, 119, 258-264. | 0.5 | 5 |
| 12 | Nonâ€invasive optical biopsy by multiphoton microscopy identifies the live morphology of common melanocytic nevi. Pigment Cell and Melanoma Research, 2020, 33, 869-877. | 3.3 | 11 |
| 13 | Diffuse optical spectroscopic imaging reveals distinct early breast tumor hemodynamic responses to metronomic and maximum tolerated dose regimens. Breast Cancer Research, 2020, 22, 29. | 5.0 | 52 |
| 14 | In vivo multiphoton microscopy of melasma. Pigment Cell and Melanoma Research, 2019, 32, 403-411. | 3.3 | 31 |
| 15 | Feature characterization of scarring and nonâ€scarring types of alopecia by multiphoton microscopy. Lasers in Surgery and Medicine, 2019, 51, 95-103. | 2.1 | 28 |
| 16 | Characterisation of impaired wound healing in a preclinical model of induced diabetes using wideâ€field imaging and conventional immunohistochemistry assays. International Wound Journal, 2019, 16, 144-152. | 2.9 | 16 |
| 17 | Special Section Guest Editorial: Translational Biophotonics. Journal of Biomedical Optics, 2019, 24, 1. | 2.6 | 1 |
| 18 | Diffuse optical spectroscopic imaging for the investigation of human lactation physiology: a case study on mammary involution. Journal of Biomedical Optics, 2019, 24, 1. | 2.6 | 7 |

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|---|---|---|---|
| 19 | Real-time, wide-field, and quantitative oxygenation imaging using spatiotemporal modulation of light. Journal of Biomedical Optics, 2019, 24, 1. | 2.6 | 14 |
| 20 | Hyperspectral imaging in the spatial frequency domain with a supercontinuum source. Journal of Biomedical Optics, 2019, 24, 1. | 2.6 | 18 |
| 21 | Non-invasive Dual-Channel Broadband Diffuse Optical Spectroscopy of Massive Hemorrhage and Resuscitative Endovascular Balloon Occlusion of the Aorta (REBOA) in Swine. Military Medicine, 2018, 183, 150-156. | 0.8 | 6 |
| 22 | Visualization of Breast Cancer Metabolism Using Multimodal Nonlinear Optical Microscopy of Cellular Lipids and Redox State. Cancer Research, 2018, 78, 2503-2512. | 0.9 | 24 |
| 23 | PTEN Deficiency and AMPK Activation Promote Nutrient Scavenging and Anabolism in Prostate Cancer Cells. Cancer Discovery, 2018, 8, 866-883. | 9.4 | 141 |
| 24 | InÂvivo multiphoton microscopy of scabies. JAAD Case Reports, 2018, 4, 985-987. | 0.8 | 1 |
| 25 | Wearable speckle plethysmography (SPG) for characterizing microvascular flow and resistance. Biomedical Optics Express, 2018, 9, 3937. | 2.9 | 29 |
| 26 | Quantitative real-time optical imaging of the tissue metabolic rate of oxygen consumption. Journal of Biomedical Optics, 2018, 23, 1. | 2.6 | 36 |
| 27 | Tissue oxygen saturation predicts response to breast cancer neoadjuvant chemotherapy within 10 days of treatment. Journal of Biomedical Optics, 2018, 24, 1. | 2.6 | 32 |
| 28 | hyperspectral characterization of tissue simulating phantoms using a supercontinuum laser in a spatial frequency domain imaging instrument. , 2018, , . | | 1 |
| 29 | ATR Mutations Promote the Growth of Melanoma Tumors by Modulating the Immune Microenvironment. Cell Reports, 2017, 18, 2331-2342. | 6.4 | 30 |
| 30 | In vivo multiphotonâ€microscopy of picosecondâ€laserâ€induced optical breakdown in human skin. Lasers in Surgery and Medicine, 2017, 49, 555-562. | 2.1 | 52 |
| 31 | Mapping breast cancer blood flow index, composition, and metabolism in a human subject using combined diffuse optical spectroscopic imaging and diffuse correlation spectroscopy. Journal of Biomedical Optics, 2017, 22, 045003. | 2.6 | 40 |
| 32 | Compressed single pixel imaging in the spatial frequency domain. Journal of Biomedical Optics, 2017, 22, 030501. | 2.6 | 39 |
| 33 | CDCP1 drives triple-negative breast cancer metastasis through reduction of lipid-droplet abundance and stimulation of fatty acid oxidation. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E6556-E6565. | 7.1 | 134 |
| 34 | Sample size and power determination when limited preliminary information is available. BMC Medical Research Methodology, 2017, 17, 75. | 3.1 | 6 |
| 35 | Noninvasive depth estimation using tissue optical properties and a dual-wavelength fluorescent molecular probe in vivo. Biomedical Optics Express, 2017, 8, 3095. | 2.9 | 21 |
| 36 | Vertical-cavity surface-emitting laser sources for gigahertz-bandwidth, multiwavelength frequency-domain photon migration. Journal of Biomedical Optics, 2017, 22, 1. | 2.6 | 6 |

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| 37 | Performance assessment of diffuse optical spectroscopic imaging instruments in a 2-year multicenter breast cancer trial. Journal of Biomedical Optics, 2017, 22, 1. | 2.6 | 41 |
| 38 | Noninvasive optical imaging of resistance training adaptations in human muscle. Journal of Biomedical Optics, 2017, 22, 1. | 2.6 | 12 |
| 39 | High-speed spatial frequency domain imaging of rat cortex detects dynamic optical and physiological properties following cardiac arrest and resuscitation. Neurophotonics, 2017, 4, 1. | 3.3 | 27 |
| 40 | The RhoJ-BAD signaling network: An Achillesâ€™ heel for BRAF mutant melanomas. PLoS Genetics, 2017, 13, e1006913. | 3.5 | 20 |
| 41 | Special Section Guest Editorial: Translational Biophotonics. Journal of Biomedical Optics, 2017, 22, 1. | 2.6 | 187 |
| 42 | Rapid mesoscale multiphoton microscopy of human skin. Biomedical Optics Express, 2016, 7, 4375. | 2.9 | 32 |
| 43 | Imaging mitochondrial dynamics in human skin reveals depth-dependent hypoxia and malignant potential for diagnosis. Science Translational Medicine, 2016, 8, 367ra169. | 12.4 | 82 |
| 44 | Cerebral blood flow is decoupled from blood pressure and linked to EEG bursting after resuscitation from cardiac arrest. Biomedical Optics Express, 2016, 7, 4660. | 2.9 | 29 |
| 45 | Biomedical optics centers: forty years of multidisciplinary clinical translation for improving human health. Journal of Biomedical Optics, 2016, 21, 124001. | 2.6 | 10 |
| 46 | Special Section Guest Editorial: Translational biophotonics. Journal of Biomedical Optics, 2016, 21, 124002. | 2.6 | 1 |
| 47 | Predicting Responses to Neoadjuvant Chemotherapy in Breast Cancer: ACRIN 6691 Trial of Diffuse Optical Spectroscopic Imaging. Cancer Research, 2016, 76, 5933-5944. | 0.9 | 105 |
| 48 | Real-time simultaneous single snapshot of optical properties and blood flow using coherent spatial frequency domain imaging (cSFDI). Biomedical Optics Express, 2016, 7, 870. | 2.9 | 27 |
| 49 | Differential diagnosis of breast masses in South Korean premenopausal women using diffuse optical spectroscopic imaging. Journal of Biomedical Optics, 2016, 21, 074001. | 2.6 | 8 |
| 50 | Correlating two-photon excited fluorescence imaging of breast cancer cellular redox state with seahorse flux analysis of normalized cellular oxygen consumption. Journal of Biomedical Optics, 2016, 21, 060503. | 2.6 | 70 |
| 51 | Subâ€40Âfs, 1060â€nm Ybâ€fiber laser enhances penetration depth in nonlinear optical microscopy of human skin. Journal of Biomedical Optics, 2015, 20, 120501. | 2.6 | 21 |
| 52 | Hyperspectral optical tomography of intrinsic signals in the rat cortex. Neurophotonics, 2015, 2, 045003. | 3.3 | 14 |
| 53 | Differential pathlength factor informs evoked stimulus response in a mouse model of Alzheimerâ€™s disease. Neurophotonics, 2015, 2, 045001. | 3.3 | 5 |
| 54 | Multifrequency synthesis and extraction using square wave projection patterns for quantitative tissue imaging. Journal of Biomedical Optics, 2015, 20, 116005. | 2.6 | 28 |

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| 55 | In vivomeasurements of cutaneous melanin across spatial scales: using multiphoton microscopy and spatial frequency domain spectroscopy. Journal of Biomedical Optics, 2015, 20, 066005. | 2.6 | 53 |
| 56 | In Vivo Multiphoton Microscopy of Basal Cell Carcinoma. JAMA Dermatology, 2015, 151, 1068. | 4.1 | 102 |
| 57 | Review of short-wave infrared spectroscopy and imaging methods for biological tissue characterization. Journal of Biomedical Optics, 2015, 20, 030901. | 2.6 | 225 |
| 58 | Cell and brain tissue imaging of the flavonoid fisetin using label-free two-photon microscopy. Neurochemistry International, 2015, 89, 243-248. | 3.8 | 48 |
| 59 | Quantitative short-wave infrared multispectral imaging ofin vivotissue optical properties. Journal of Biomedical Optics, 2014, 19, 086011. | 2.6 | 33 |
| 60 | Optical imaging in an Alzheimerâ€™s mouse model reveals amyloid-Î²-dependent vascular impairment. Neurophotonics, 2014, 1, 011005. | 3.3 | 31 |
| 61 | In vivo optical signatures of neuronal death in a mouse model of Alzheimer's disease. Lasers in Surgery and Medicine, 2014, 46, 27-33. | 2.1 | 20 |
| 62 | Distinguishing between Benign and Malignant Melanocytic Nevi by In Vivo Multiphoton Microscopy. Cancer Research, 2014, 74, 2688-2697. | 0.9 | 95 |
| 63 | Advanced demodulation technique for the extraction of tissue optical properties and structural orientation contrast in the spatial frequency domain. Journal of Biomedical Optics, 2014, 19, 056013. | 2.6 | 53 |
| 64 | Quantitative, depth-resolved determination of particle motion using multi-exposure, spatial frequency domain laser speckle imaging. Biomedical Optics Express, 2013, 4, 2880. | 2.9 | 21 |
| 65 | Feasibility of direct digital sampling for diffuse optical frequency domain spectroscopy in tissue. Measurement Science and Technology, 2013, 24, 045501. | 2.6 | 19 |
| 66 | Diffuse optical imaging using spatially and temporally modulated light. Journal of Biomedical Optics, 2012, 17, 0713111. | 2.6 | 189 |
| 67 | Spatial frequency domain tomography of protoporphyrin IX fluorescence in preclinical glioma models. Journal of Biomedical Optics, 2012, 17, 056008. | 2.6 | 53 |
| 68 | Diffuse Optical Spectroscopy and Imaging in Breast Cancer. , 2011, , 135-157. | | 0 |
| 69 | Quantitative determination of dynamical properties using coherent spatial frequency domain imaging. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2011, 28, 2108. | 1.5 | 24 |
| 70 | Laser speckle imaging in the spatial frequency domain. Biomedical Optics Express, 2011, 2, 1553. | 2.9 | 54 |
| 71 | Identification of cholesterol crystals in plaques of atherosclerotic mice using hyperspectral CARS imaging. Journal of Lipid Research, 2011, 52, 2177-2186. | 4.2 | 108 |
| 72 | Multispectral imaging of tissue absorption and scattering using spatial frequency domain imaging and a computed-tomography imaging spectrometer. Journal of Biomedical Optics, 2011, 16, 011015. | 2.6 | 64 |

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| 73 | Wavelength optimization for rapid chromophore mapping using spatial frequency domain imaging. Journal of Biomedical Optics, 2010, 15, 1. | 2.6 | 94 |
| 74 | Imaging Breast Cancer Chemotherapy Response with Light. Clinical Cancer Research, 2010, 16, 2486-2488. | 7.0 | 17 |
| 75 | Noncontact imaging of absorption and scattering in layered tissue using spatially modulated structured light. Journal of Applied Physics, 2009, 105, . | 2.5 | 53 |
| 76 | Imaging cortical absorption, scattering, and hemodynamic response during ischemic stroke using spatially modulated near-infrared illumination. Journal of Biomedical Optics, 2009, 14, 024033. | 2.6 | 84 |
| 77 | Quantitation and mapping of tissue optical properties using modulated imaging. Journal of Biomedical Optics, 2009, 14, 024012. | 2.6 | 520 |
| 78 | Assessing the future of diffuse optical imaging technologies for breast cancer management. Medical Physics, 2008, 35, 2443-2451. | 3.0 | 289 |
| 79 | Measuring and Mapping Optical Properties and Chromophore Changes During Brain Injury in the Near-Infrared Spectral Range Using Spatial Modulation of Light: Initial Results. , 2007, , . | | 1 |
| 80 | Photodynamic Therapy of Human Glioma Spheroids Using 5-Aminolevulinic Acid Â¶. Photochemistry and Photobiology, 2007, 72, 128-134. | 2.5 | 3 |
| 81 | Effects of Combined Photodynamic Therapy and Ionizing Radiationon Human Glioma SpheroidsÂ¶. Photochemistry and Photobiology, 2007, 76, 411-416. | 2.5 | 0 |
| 82 | HBS: a Handheld Breast Cancer detector based on frequency domain photon migration with full heterodyne. , 2006, , . | | 5 |
| 83 | Spatial-Frequency-Domain Imaging for quality assessment of apples. , 2006, , . | | 1 |
| 84 | Modulated imaging: quantitative analysis and tomography of turbid media in the spatial-frequency domain. Optics Letters, 2005, 30, 1354. | 3.3 | 387 |
| 85 | Imaging in breast cancer: Diffuse optics in breast cancer: detecting tumors in pre-menopausal women and monitoring neoadjuvant chemotherapy. Breast Cancer Research, 2005, 7, 279-85. | 5.0 | 228 |
| 86 | Development of a novel indwelling balloon applicator for optimizing light delivery in photodynamic therapy. Lasers in Surgery and Medicine, 2001, 29, 406-412. | 2.1 | 60 |
| 87 | Two-Photon Laser Scanning Microscopy of Epithelial Cell-Modulated Collagen Density in Engineered Human Lung Tissue. Tissue Engineering, 2001, 7, 191-202. | 4.6 | 64 |
| 88 | Two-Photon Excitation Laser Scanning Microscopy of Human, Porcine, and Rabbit Nasal Septal Cartilage. Tissue Engineering, 2001, 7, 599-606. | 4.6 | 23 |
| 89 | Monitoring Tumor Response During Photodynamic Therapy Using Near-infrared Photon-migration SpectroscopyÂ¶. Photochemistry and Photobiology, 2001, 73, 669-677. | 2.5 | 3 |
| 90 | Broad bandwidth frequency domain instrument for quantitative tissue optical spectroscopy. Review of Scientific Instruments, 2000, 71, 2500-2513. | 1.3 | 249 |

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|---|---|---|---|
| 91 | Highly Selective Targeting of Ovarian Cancer with the Photosensitizer PEGâ€mâ€THPC in a Rat Model. Photochemistry and Photobiology, 1999, 70, 624-629. | 2.5 | 35 |
| 92 | An indwelling brachytherapy balloon catheter: potential use as an intracranial light applicator for photodynamic therapy. Journal of Neuro-Oncology, 1999, 44, 15-21. | 2.9 | 17 |
| 93 | Highly Selective Targeting of Ovarian Cancer with the Photosensitizer PEG-m-THPC in a Rat Model. Photochemistry and Photobiology, 1999, 70, 624. | 2.5 | 2 |
| 94 | Fluorescence resonance energy transfer: FRET studies of ligand binding to cell surface receptors. Journal of Fluorescence, 1998, 8, 13-20. | 2.5 | 3 |
| 95 | Macrophage Targeted Photodynamic Regulation of Wound Healing. Microscopy and Microanalysis, 1998, 4, 1090-1091. | 0.4 | 0 |
| 96 | Nonâ€“invasive measurements of breast tissue optical properties using frequencyâ€“domain photon migration. Philosophical Transactions of the Royal Society B: Biological Sciences, 1997, 352, 661-668. | 4.0 | 242 |
| 97 | Giant cell formation in cells exposed to 740 nm and 760 nm optical traps. , 1997, 21, 159-165. | | 14 |
| 98 | Animal model for thoracoscopic laser ablation of emphysematous pulmonary bullae. , 1996, 18, 191-196. | | 8 |
| 99 | Comparison of continuous versus pulsed CO2 and Nd:YAG laser-induced pulmonary parenchymal lung injury in a rabbit model. , 1996, 19, 416-423. | | 3 |
| 100 | AUTOFLUORESCENCE SPECTROSCOPY OF OPTICALLY TRAPPED CELLS. Photochemistry and Photobiology, 1995, 62, 830-835. | 2.5 | 23 |