Steven L Jacques

List of Publications by Year in descending order

77 papers	11,235 citations	126907 33 h-index	91884 69 g-index
83 all docs	83 docs citations	83 times ranked	8981 citing authors

#	Article	IF	Citations
1	MCMLâ€"Monte Carlo modeling of light transport in multi-layered tissues. Computer Methods and Programs in Biomedicine, 1995, 47, 131-146.	4.7	2,884
2	Optical properties of biological tissues: a review. Physics in Medicine and Biology, 2013, 58, R37-R61.	3.0	2,743
3	Optical properties of intralipid: A phantom medium for light propagation studies. Lasers in Surgery and Medicine, 1992, 12, 510-519.	2.1	557
4	Imaging skin pathology with polarized light. Journal of Biomedical Optics, 2002, 7, 329.	2.6	542
5	Laser-Tissue Interactions: Photochemical, Photothermal, and Photomechanical. Surgical Clinics of North America, 1992, 72, 531-558.	1.5	345
6	Light distributions in artery tissue: Monte Carlo simulations for finite-diameter laser beams. Lasers in Surgery and Medicine, 1989, 9, 148-154.	2.1	314
7	Tutorial on diffuse light transport. Journal of Biomedical Optics, 2008, 13, 041302.	2.6	274
8	Modeling optical and thermal distributions in tissue during laser irradiation. Lasers in Surgery and Medicine, 1987, 6, 494-503.	2.1	269
9	Measurement of tissue optical properties by time-resolved detection of laser-induced transient stress. Applied Optics, 1997, 36, 402.	2.1	240
10	Mie and Rayleigh modeling of visible-light scattering in neonatal skin. Applied Optics, 1995, 34, 7410.	2.1	238
11	THE MELANOSOME: THRESHOLD TEMPERATURE FOR EXPLOSIVE VAPORIZATION AND INTERNAL ABSORPTION COEFFICIENT DURING PULSED LASER IRRADIATION. Photochemistry and Photobiology, 1991, 53, 769-775.	2.5	225
12	PHOTODYNAMIC THERAPY WITH PHOTOFRIN II INDUCES PROGRAMMED CELL DEATH IN CARCINOMA CELL LINES. Photochemistry and Photobiology, 1994, 59, 468-473.	2.5	178
13	Quantitative analysis of transcranial and intraparenchymal light penetration in human cadaver brain tissue. Lasers in Surgery and Medicine, 2015, 47, 312-322.	2.1	174
14	Three Monte Carlo programs of polarized light transport into scattering media: part II. Optics Express, 2005, 13, 10392.	3.4	169
15	Modeling Tumor Phenotypes InÂVitro with Three-Dimensional Bioprinting. Cell Reports, 2019, 26, 608-623.e6.	6.4	169
16	Optical properties of rat liver between 350 and 2200 nm. Applied Optics, 1989, 28, 2325.	2.1	146
17	Hybrid model of Monte Carlo simulation and diffusion theory for light reflectance by turbid media. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1993, 10, 1746.	1.5	145
18	Coupling 3D Monte Carlo light transport in optically heterogeneous tissues to photoacoustic signal generation. Photoacoustics, 2014, 2, 137-142.	7.8	104

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19	Light transport in tissue: Accurate expressions for one-dimensional fluence rate and escape function based upon Monte Carlo simulation. , 1996, 18, 129-138.		92
20	Laser induced bubble formation in the retina. , 1996, 18, 10-21.		72
21	IMMEDIATE PIGMENT DARKENING: VISUAL AND REFLECTANCE SPECTROPHOTOMETRIC ANALYSIS OF ACTION SPECTRUM. Photochemistry and Photobiology, 1990, 51, 583-588.	2.5	68
22	XeCl laser ablation of atherosclerotic aorta: Optical properties and energy pathways. Lasers in Surgery and Medicine, 1992, 12, 585-597.	2.1	67
23	Determination of tissue optical properties by piezoelectric detection of laser-induced stress waves. , 1993, 1882, 86.		60
24	Extraction of optical properties and prediction of light distribution in rat brain tissue. Journal of Biomedical Optics, 2014, 19, 075001.	2.6	57
25	OptogenSIM: a 3D Monte Carlo simulation platform for light delivery design in optogenetics. Biomedical Optics Express, 2015, 6, 4859.	2.9	54
26	How tissue optics affect dosimetry of photodynamic therapy. Journal of Biomedical Optics, 2010, 15, 051608.	2.6	51
27	Rapid spectral analysis for spectral imaging. Biomedical Optics Express, 2010, 1, 157.	2.9	50
28	Laser-induced photoacoustic injury of skin: Effect of inertial confinement. Lasers in Surgery and Medicine, 1991, 11, 62-68.	2.1	48
29	In vivo imaging of coral tissue and skeleton with optical coherence tomography. Journal of the Royal Society Interface, 2017, 14, 20161003.	3.4	48
30	Perturbation theory for diffuse light transport in complex biological tissues. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1997, 14, 255.	1.5	45
31	Ratio of entropy to enthalpy in thermal transitions in biological tissues. Journal of Biomedical Optics, 2006, 11, 041108.	2.6	45
32	Monte Carlo Modeling of Photon Propagation Reveals Highly Scattering Coral Tissue. Frontiers in Plant Science, 2016, 7, 1404.	3.6	42
33	Minimal basilar membrane motion in low-frequency hearing. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E4304-10.	7.1	42
34	Optical properties of mutant versus wild-type mouse skin measured by reflectance-mode confocal scanning laser microscopy (rCSLM). Journal of Biomedical Optics, 2008, 13, 041309.	2.6	40
35	Automated detection of malignant features in confocal microscopy on superficial spreading melanoma versus nevi. Journal of Biomedical Optics, 2010, 15, 061713.	2.6	40
36	Goniometric measurements of thick tissue using Monte Carlo simulations to obtain the single scattering anisotropy coefficient. Biomedical Optics Express, 2012, 3, 2707.	2.9	39

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37	Simultaneous Multicolor Single-Molecule Tracking with Single-Laser Excitation via Spectral Imaging. Biophysical Journal, 2018, 114, 301-310.	0.5	38
38	Optical assessment of cutaneous blood volume depends on the vessel size distribution: a computer simulation study. Journal of Biophotonics, 2010, 3, 75-81.	2.3	36
39	Filtering of Acoustic Signals within the Hearing Organ. Journal of Neuroscience, 2014, 34, 9051-9058.	3.6	35
40	Optimized radial and angular positions in Monte Carlo modeling. Medical Physics, 1994, 21, 1081-1083.	3.0	34
41	Methods of Melanoma Detection. Cancer Treatment and Research, 2016, 167, 51-105.	0.5	31
42	Hyperspectral imaging in automated digital dermoscopy screening for melanoma. Lasers in Surgery and Medicine, 2019, 51, 214-222.	2.1	27
43	Infrared video imaging of subsurface vessels: A feasibility study for the endoscopic management of gastrointestinal bleeding. Gastrointestinal Endoscopy, 1995, 41, 218-224.	1.0	25
44	XeCl laser ablation of atherosclerotic aorta: Luminescence spectroscopy of ablation products. Lasers in Surgery and Medicine, 1993, 13, 168-178.	2.1	24
45	Optical Properties of Corals Distort Variable Chlorophyll Fluorescence Measurements. Plant Physiology, 2019, 179, 1608-1619.	4.8	24
46	Microscale light management and inherent optical properties of intact corals studied with optical coherence tomography. Journal of the Royal Society Interface, 2019, 16, 20180567.	3.4	21
47	<title>Simple optical theory for light dosimetry during PDT (Invited Paper)</title>. , 1992, 1645, 155.		20
48	Reflectance confocal microscopy of optical phantoms. Biomedical Optics Express, 2012, 3, 1162.	2.9	20
49	Modeling photon transport in transabdominal fetal oximetry. Journal of Biomedical Optics, 2000, 5, 277.	2.6	19
50	Combined Nd:YAG and Er:YAG lasers for real-time closed-loop tissue-specific laser osteotomy. Biomedical Optics Express, 2020, 11, 1790.	2.9	19
51	Minimally invasive surgical method to detect sound processing in the cochlear apex by optical coherence tomography. Journal of Biomedical Optics, 2016, 21, 025003.	2.6	17
52	Modeling subdiffusive light scattering by incorporating the tissue phase function and detector numerical aperture. Journal of Biomedical Optics, 2017, 22, 050501.	2.6	17
53	SPECTRAL IMAGING AND ANALYSIS TO YIELD TISSUE OPTICAL PROPERTIES. Journal of Innovative Optical Health Sciences, 2009, 02, 123-129.	1.0	16
54	Efficient lightâ€harvesting of mesophotic corals is facilitated by coral opticalÂtraits. Functional Ecology, 2022, 36, 406-418.	3.6	15

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55	Measuring tissue optical properties in vivo using reflectance-mode confocal microscopy and OCT. Proceedings of SPIE, 2008, , .	0.8	14
56	Path Integral Description of Light Transport in Tissuea. Annals of the New York Academy of Sciences, 1998, 838, 1-13.	3.8	12
57	Methodological problems in a study of fetal visual perception. Current Biology, 2018, 28, R594-R596.	3.9	10
58	Modeling voxel-based Monte Carlo light transport with curved and oblique boundary surfaces. Journal of Biomedical Optics, 2020, 25, 1.	2.6	9
59	Mammary collagen is under reproductive control with implications for breast cancer. Matrix Biology, 2022, 105, 104-126.	3.6	9
60	Potential role of the glycolytic oscillator in acute hypoxia in tumors. Physics in Medicine and Biology, 2015, 60, 9215-9225.	3.0	8
61	Quick analysis of optical spectra to quantify epidermal melanin and papillary dermal blood content of skin. Journal of Biophotonics, 2015, 8, 309-316.	2.3	7
62	Optical Properties of Living Corals Determined With Diffuse Reflectance Spectroscopy. Frontiers in Marine Science, 2019, 6, .	2.5	7
63	Semi-automated registration and segmentation for gingival tissue volume measurement on 3D OCT images. Biomedical Optics Express, 2020, 11, 4536.	2.9	7
64	Graphics-processing-unit-accelerated Monte Carlo simulation of polarized light in complex three-dimensional media. Journal of Biomedical Optics, 2022, 27, .	2.6	7
65	Perspective on diffuse light in tissue: subsampling photon populations. Journal of Biomedical Optics, 2021, 26, .	2.6	5
66	Noninvasive in vivo optical characterization of blood flow and oxygen consumption in the superficial plexus of skin. Journal of Biomedical Optics, 2017, 22, 1.	2.6	5
67	The Black Bug Myth: Selective photodestruction of pigmented pathogens. Lasers in Surgery and Medicine, 2016, 48, 706-714.	2.1	4
68	Tumor specific response to photodynamic therapy. Lasers in Surgery and Medicine, 1993, 13, 434-439.	2.1	2
69	Development of a phase-sensitive Fourier domain optical coherence tomography system to measure mouse organ of Corti vibrations in two cochlear turns. AIP Conference Proceedings, 2015, , .	0.4	2
70	Interstitial diffuse optical probe with spectral fitting to measure dynamic tumor hypoxia. Biomedical Physics and Engineering Express, 2020, 6, 015039.	1.2	1
71	Spectral response of optical fiber probe with closely spaced fibers. Quantitative Imaging in Medicine and Surgery, 2020, 11, 1023-1032.	2.0	1
72	Imaging Organ of Corti Vibration Using Fourier-Domain OCT. , 2011, , .		0

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73	Entropy and enthalpy for triggering cutaneous erythema. Journal of Innovative Optical Health Sciences, 2015, 08, 1550026.	1.0	0
74	Innovative Optical Technologies in Ophthalmology and Eye Research. Journal of Ocular Pharmacology and Therapeutics, 2021, 37, 142-142.	1.4	0
75	Optical characterization of vascular tissue constructs made with soluble vs. homogenized collagen. FASEB Journal, 2008, 22, .	0.5	0
76	Photon-Tissue Interactions in Biomedical Imaging. , 2021, , 1-24.		0
77	Microfluidic photoreactor to treat neonatal jaundice. Biomicrofluidics, 2021, 15, 064104.	2.4	0