

David R Busch

List of Publications by Year in descending order

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Version: 2024-02-01

84
papers

1,563
citations

257101

24
h-index

315357

38
g-index

86
all docs

86
docs citations

86
times ranked

1557
citing authors

#	ARTICLE	IF	CITATIONS
1	Effects of circulatory arrest and cardiopulmonary bypass on cerebral autoregulation in neonatal swine. <i>Pediatric Research</i> , 2022, 91, 1374-1382.	1.1	5
2	Association of Ongoing Cerebral Oxygen Extraction During Deep Hypothermic Circulatory Arrest With Postoperative Brain Injury. <i>Seminars in Thoracic and Cardiovascular Surgery</i> , 2022, 34, 1275-1284.	0.4	7
3	A Pilot Study Comparing Optically Measured Cerebral Autoregulation During Pediatric Extracorporeal Life Support and Neurological Injury. , 2022, , .		0
4	Breast cancer differential diagnosis using diffuse optical spectroscopic imaging and regression with z-score normalized data. <i>Journal of Biomedical Optics</i> , 2021, 26, .	1.4	5
5	Blood flow response to orthostatic challenge identifies signatures of the failure of static cerebral autoregulation in patients with cerebrovascular disease. <i>BMC Neurology</i> , 2021, 21, 154.	0.8	4
6	Towards rapid intraoperative axial localization of spinal cord ischemia with epidural diffuse correlation monitoring. <i>PLoS ONE</i> , 2021, 16, e0251271.	1.1	3
7	Performance Assessment of a Commercial Continuous-Wave Near-Infrared Spectroscopy Tissue Oximeter for Suitability for Use in an International, Multi-Center Clinical Trial. <i>Sensors</i> , 2021, 21, 6957.	2.1	10
8	Peripheral microcirculatory alterations are associated with the severity of acute respiratory distress syndrome in COVID-19 patients admitted to intermediate respiratory and intensive care units. <i>Critical Care</i> , 2021, 25, 381.	2.5	23
9	Non-invasive optical neuromonitoring of the temperature-dependence of cerebral oxygen metabolism during deep hypothermic cardiopulmonary bypass in neonatal swine. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2020, 40, 187-203.	2.4	30
10	Multi-Site Optical Monitoring of Spinal Cord Ischemia during Spine Distraction. <i>Journal of Neurotrauma</i> , 2020, 37, 2014-2022.	1.7	5
11	Noninvasive optical measurement of microvascular cerebral hemodynamics and autoregulation in the neonatal ECMO patient. <i>Pediatric Research</i> , 2020, 88, 925-933.	1.1	23
12	Towards detection of brain injury using multimodal non-invasive neuromonitoring in adults undergoing extracorporeal membrane oxygenation. <i>Biomedical Optics Express</i> , 2020, 11, 6551.	1.5	11
13	Application of Non-Invasive Cerebral Blood Flow Monitoring Modalities in Adults Undergoing Extracorporeal Membrane Oxygenation. , 2020, , .		0
14	Asymmetric, dynamic adaptation in prefrontal cortex during dichotic listening tasks. <i>Neurophotonics</i> , 2020, 7, 045008.	1.7	1
15	Detection of Brain Hypoxia Based on Noninvasive Optical Monitoring of Cerebral Blood Flow with Diffuse Correlation Spectroscopy. <i>Neurocritical Care</i> , 2019, 30, 72-80.	1.2	39
16	Diffuse Correlation Spectroscopy Analysis Implemented on a Field Programmable Gate Array. <i>IEEE Access</i> , 2019, 7, 122503-122512.	2.6	11
17	Evaluation of a New Catheter for Simultaneous Intracranial Pressure Monitoring and Cerebral Spinal Fluid Drainage: A Pilot Study. <i>Neurocritical Care</i> , 2019, 31, 225-226.	1.2	3
18	Perfusion Enhancement with Respiratory Impedance After Stroke (PERI-Stroke). <i>Neurotherapeutics</i> , 2019, 16, 1296-1303.	2.1	6

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19	Continuous non-invasive optical monitoring of cerebral blood flow and oxidative metabolism after acute brain injury. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2019, 39, 1469-1485.	2.4	60
20	Early microvascular cerebral blood flow response to head-of-bed elevation is related to outcome in acute ischemic stroke. <i>Journal of Neurology</i> , 2019, 266, 990-997.	1.8	31
21	Hybrid time-domain and continuous-wave diffuse optical tomography instrument with concurrent, clinical magnetic resonance imaging for breast cancer imaging. <i>Journal of Biomedical Optics</i> , 2019, 24, 1.	1.4	26
22	Noninvasive Optical Monitoring of Cerebral Blood Flow, Critical Closing Pressure, and Arteriole Compliance in Adult Human Subjects. , 2018, , .		0
23	Tissue Oxygen Saturation Predicts Response to Breast Cancer Neoadjuvant Chemotherapy within 10 Days. , 2018, , .		0
24	Preoperative cerebral hemodynamics from birth to surgery in neonates with critical congenital heart disease. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2018, 156, 1657-1664.	0.4	61
25	Laser safety in fiber-optic monitoring of spinal cord hemodynamics: a preclinical evaluation. <i>Journal of Biomedical Optics</i> , 2018, 23, 1.	1.4	11
26	Tissue oxygen saturation predicts response to breast cancer neoadjuvant chemotherapy within 10 days of treatment. <i>Journal of Biomedical Optics</i> , 2018, 24, 1.	1.4	32
27	Noninvasive continuous optical monitoring of absolute cerebral blood flow in critically ill adults. <i>Neurophotonics</i> , 2018, 5, 1.	1.7	42
28	Development of a Continuous, Axially-Resolved, Optical Monitor of Spinal Cord Blood Flow. , 2018, , .		0
29	Non-Invasive Diffuse Optical Quantification of Changes in Cerebral Oxygen Metabolism Following Deep Hypothermia and Circulatory Arrest in a Neonatal Swine Model. , 2018, , .		0
30	Continuous and Minimally Invasive Measurement of Blood Flow in the Spinal Cord. , 2018, , .		0
31	Pilot Study of Blood Flow Markers during Neoadjuvant Chemotherapy. , 2018, , .		0
32	Noninvasive Continuous Optical Monitoring of Absolute Cerebral Blood Flow in Adult Human Subjects. , 2018, , .		0
33	Longitudinal optical monitoring of blood flow in breast tumors during neoadjuvant chemotherapy. <i>Physics in Medicine and Biology</i> , 2017, 62, 4637-4653.	1.6	12
34	Multi-modal diffuse optical techniques for breast cancer neoadjuvant chemotherapy monitoring (Conference Presentation). , 2017, , .		0
35	Noninvasive optical monitoring of critical closing pressure and arteriole compliance in human subjects. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2017, 37, 2691-2705.	2.4	51
36	Effects of exercise training on calf muscle oxygen extraction and blood flow in patients with peripheral artery disease. <i>Journal of Applied Physiology</i> , 2017, 123, 1599-1609.	1.2	51

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37	Intraoperative Monitoring of Spinal Cord Blood Flow. , 2017, , .		0
38	Continuous cerebral hemodynamic measurement during deep hypothermic circulatory arrest. Biomedical Optics Express, 2016, 7, 3461.	1.5	30
39	Effect of anesthesia on cerebral oxygenation and blood flow in neonates with critical congenital heart disease. , 2016, , .		1
40	Heterodyne frequencyâ€domain multispectral diffuse optical tomography of breast cancer in the parallelâ€plane transmission geometry. Medical Physics, 2016, 43, 4383-4395.	1.6	21
41	Cerebral Blood Flow Response to Hypercapnia in Children with Obstructive Sleep Apnea Syndrome. Sleep, 2016, 39, 209-216.	0.6	26
42	Blood Flow Response to Orthostatic Challenges in Health and Diseased Populations. , 2016, , .		1
43	Multimodal Structural Priors for Spatially-Dense Diffuse Optical Tomography of Breast Cancer. , 2016, , .		1
44	Cerebral Autoregulation During Pediatric Extracorporeal Membrane Oxygenation Therapy. , 2016, , .		0
45	Pressure Modulation Algorithm to Separate Cerebral Hemodynamic Signals from Extracerebral Artifacts. , 2016, , .		0
46	Macroscopic optical physiological parameters correlate with microscopic proliferation and vessel area breast cancer signatures. Breast Cancer Research, 2015, 17, 72.	2.2	18
47	Pressure modulation algorithm to separate cerebral hemodynamic signals from extracerebral artifacts. Neurophotonics, 2015, 2, 035004.	1.7	70
48	Modified Beer-Lambert law for blood flow. , 2015, , .		1
49	Scoring system for periventricular leukomalacia in infants with congenital heart disease. Pediatric Research, 2015, 78, 304-309.	1.1	18
50	Optically Measured Microvascular Blood Flow Contrast of Malignant Breast Tumors. PLoS ONE, 2014, 9, e99683.	1.1	39
51	Modified Beer-Lambert law for blood flow. Biomedical Optics Express, 2014, 5, 4053.	1.5	186
52	Introduction to the Special Issue. Academic Radiology, 2014, 21, 137-138.	1.3	0
53	Time to surgery and preoperative cerebral hemodynamics predict postoperative white matter injury in neonates with hypoplastic left heart syndrome. Journal of Thoracic and Cardiovascular Surgery, 2014, 148, 2181-2188.	0.4	112
54	Noninvasive Optical Quantification of Cerebral Venous Oxygen Saturation in Humans. Academic Radiology, 2014, 21, 162-167.	1.3	27

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55	Blood Flow Reduction in Breast Tissue due to Mammographic Compression. Academic Radiology, 2014, 21, 151-161.	1.3	23
56	Characterization of Metabolic Pathways in Breast Cancer using Diffuse Optical Tomography. , 2014, , .		1
57	Optical Monitoring of Blood Flow during Extracorporeal Membrane Oxygenation Therapy. , 2014, , .		0
58	Optical Monitoring of Cerebral Blood Flow in Patients with Acute Ischemic Stroke During Intravenous Administration of Normal Saline. , 2014, , .		0
59	Pre-Operative Cerebral Hemodynamics in Infants with Critical Congenital Heart Disease. , 2014, , .		0
60	Probe Pressure Modulation Algorithm Reduces Extracerebral Contamination in Optical Measurements of Cerebral Blood Flow. , 2014, , .		3
61	Diffuse optical tomography in the presence of a chest wall. Journal of Biomedical Optics, 2013, 18, 026016.	1.4	6
62	Early postoperative changes in cerebral oxygen metabolism following neonatal cardiac surgery: Effects of surgical duration. Journal of Thoracic and Cardiovascular Surgery, 2013, 145, 196-205.e1.	0.4	55
63	Toward Noninvasive Characterization of Breast Cancer and Cancer Metabolism with Diffuse Optics. PET Clinics, 2013, 8, 345-365.	1.5	32
64	Influence of probe pressure on the diffuse correlation spectroscopy blood flow signal: extra-cerebral contributions. Biomedical Optics Express, 2013, 4, 978.	1.5	50
65	Optical malignancy parameters for monitoring progression of breast cancer neoadjuvant chemotherapy. Biomedical Optics Express, 2013, 4, 105.	1.5	25
66	307. Critical Care Medicine, 2013, 41, A71-A72.	0.4	0
67	Abstract P2-03-10: Non-invasively measured Warburg effect: Optically measured tissue oxygenation and its correlation with Ki67 proliferation. , 2013, , .		0
68	Computer Aided Monitoring of Neoadjuvant Chemotherapy for Breast Cancer. , 2012, , .		0
69	Early Changes in Breast Cancer Blood Flow due to Chemotherapy: Potential Predictor for Therapeutic Efficacy. , 2012, , .		0
70	Microvascular Blood Flow Changes in Human Breast During Simulated Mammography. , 2012, , .		0
71	Computer aided automatic detection of malignant lesions in diffuse optical mammography. Medical Physics, 2010, 37, 1840-1849.	1.6	24
72	Computer-Aided Detection of Tumors in 3D Tomograms from Diffuse Optical Mammography. , 2010, , .		0

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73	Breast Cancer Therapy Monitoring with Diffuse Optical Tomography and Diffuse Correlation Spectroscopy. , 2010, , .		0
74	Development of a Frequency-Domain Multi-Spectral Breast Diffuse Optical Tomography Instrument. , 2010, , .		0
75	TU-E-201C-07: Computer Aided Detection for Diffuse Optical Mammography. Medical Physics, 2010, 37, 3405-3406.	1.6	0
76	SUâ€œGâ€œâ€œ171: Diffuse Optical Measurements of Blood Oxygenation and Flow for Monitoring CMRO2 in Neonates with Congenital Heart Defects. Medical Physics, 2010, 37, 3141-3141.	1.6	0
77	SUâ€œHâ€œâ€œ08: Blood Flow and Volume Changes during Simulated Mammography. Medical Physics, 2010, 37, 3331-3331.	1.6	2
78	Differentiation of benign and malignant breast tumors by in-vivo three-dimensional parallel-plate diffuse optical tomography. Journal of Biomedical Optics, 2009, 14, 024020.	1.4	189
79	Differentiation of benign and malignant breast lesions by in-vivo three-dimensional diffuse optical tomography.. , 2009, , .		3
80	Effects of compression on transillumination measurements of blood flow and chromophore concentrations in human breast tissue.. , 2008, , .		0
81	Fast CW imager for ICG and Gd kinetics. , 2006, , .		0
82	Comparison of imaged ICG and Gd kinetics with a DOT-MRI instrument. , 2006, , .		1
83	Determination of the optical properties of two-layer turbid media by use of a frequency-domain hybrid Monte Carlo diffusion model. Applied Optics, 2001, 40, 3810.	2.1	34
84	<title>Experimental tests of a two-layer Monte Carlo-diffusion hybrid model for photon migration in the frequency domain</title>. , 2001, , .		1