Artinis NIRS Literature List

There are a vast number of publications on Near Infrared Spectroscopy. Here we present some of the general literature on NIRS, on specific applications and literature utilizing the OxyMon, PortaMon or PortaLite system.

General, Introductory and Reviews


Macnab, A, Shadgan B. Biomedical applications of wireless continuous wave near infrared spectroscopy. *Biomedical Spectroscopy and Imaging* 1(2012) 205–222


Instrumentation and Algorithms, Comparison/Description


Haigh SM, Cooper NR, Wilkins AJ. Cortical excitability and the shape of the haemodynamic response. *Neuroimage.* 2015 Feb 24


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Van der Sluijs, MC, Colier, WNJM, Houston, RJ and Oeseburg, B. New and highly sensitive continuous-wave near-infrared spectrophotometer with multiple detectors. Proc SPIE. 1997;3194: 63-72.


PortaMon /PortaLite wireless


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de Marées M, Markus Hein, Florence Correa, Tobias Ait, Raphael Jung, Heiner Schwartz, Joachim Mester. Predicting the time to exhaustion on different altitude levels by the tissue saturation index. Science and Skiing 2013.


Billaut F, Davis JM, Smith KJ, Marino FE, Noakes TD. Cerebral oxygenation decreases but does not impair performance during self-paced, strenuous exercise. Acta Physiol. (Oxf) 2010 Apr;198(4):477-86.


Also see: http://www.jove.com/details.php?id=2670


Functional NIRS


Dodd FL, Kennedy DO, Ritby LM, Haskell-Ramsay CF. A double-blind, placebo-controlled study evaluating the effects of caffeine and L-theanine both alone and in combination on cerebral blood flow, cognition and mood. *Psychopharmacology (Berl).* 2015

Ferreri L, Bigand E, Au cotturier J, Perrey S and Bugaiska A. Less effort, better results: how does music act on prefrontal cortex in older adults during verbal encoding? A fNIRS study. *Frontiers in Human Neuroscience* 1662-5161


Grant H, Bhamhani Y, Singhal A. Hemodynamic changes in the Prefrontal Cortex during Working Memory in Essential Hypertension. *Journal of the American Society of Hypertension* 2015 June 02


Heger D, Herff C, Putze F, Schultz T. Towards Biometric Person Identification using fNIRS. *International BCI Meeting 2013, Asilomar, USA*


Herff C, Heger D, Putze F, Hennrich J, Fortmann O, Classification of mental tasks in the prefrontal cortex using fNIRS. *Clinical Neurophysiology,* 2013


Koenraadt KLM, Duysens J, Smeenk M, Keijers NLW. Multi-channel NIRS of the primary motor cortex to discriminate hand from foot activity. *J Neural Eng*. 2014 9 046010


Radel R, Brisswalter J, Perrey S. Saving mental effort to maintain physical effort: a shift of activity within the prefrontal cortex in anticipation of prolonged exercise. *Cogn Affect Behav Neurosci*. 2016 Nov 1


Sood M. Investigating online effects of transcranial direct current stimulation from NIRS-EEG joint-imaging using Kalman Filter based online parameter estimation of an autoregressive model. Thesis Hyderabad university, India, 2015


Brain and muscle


**Periphery**


Christensen C, Fristrup B, Larsen A, Petersen I. Local oxygenation in m. trapezius during computer mouse work in presence of DOMS. Bachelor project - Department of health science and technology, Aalborg University, Denmark.


Glaister M, Pattison JR, Muniz-Pumares D, Patterson, SD, Foley P. Effects of dietary nitrate, caffeine, and their combination on 20 km cycling time-trial performance. Journal of Strength & Conditioning Research: June 24, 2014


McGowan CJ, Pyne DB, Thompson KG, Raglin JS, Osborne M, Rattray B. Elite sprint swimming performance is enhanced by completion of additional warm-up activities. *J of Sport Sciences* 15 Sep 2016.


Spee RF, Niemeijer VM, Schoots T, Wijn PF, Doevendans PA, Kemps HM. The relation between cardiac output kinetics and skeletal muscle oxygenation during moderate exercise in moderately impaired patients with chronic heart failure. *J Appl Physiol.* 2016 Jun 9;jap.00079.2016. doi:


**Urology**


Shadgan B, Macnab AJ. Using near infrared spectroscopy (NIRS) technology in a clinical setting to address an important issue. *J Trauma*. 2008; 65(5):1205.


Stothers L, Shadgan B, Macnab AJ. Near-infrared spectroscopy of the detrusor during urodynamics with simultaneous ultrasound measurements of bladder dimensions and position. *Biomedical Spectroscopy and Imaging*.