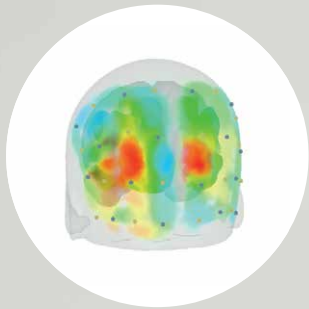


OxyMon

A user-friendly, flexible,
and highly versatile
NIRS system



Main applications are found in:

- fNIRS
- Functional connectivity
- Brain computer interface (BCI)
- Brain oxygen monitoring
- Hyperscanning
- Muscle applications



Up to 108 channels.



Utilizing the non-invasive NIRS technique.



Can easily be combined with other techniques such as EEG, EMG, fMRI, TDCS and TMS.



Measures oxy-, deoxy-, and total hemoglobin concentration changes.



We offer a wide variety of optode holders, head caps, and fibers, with the possibility of customization.



Easy data analysis with our superior analysis software OxySoft.

Interested?

Contact us at
askforinfo@artinis.com

www.artinis.com
+31 481 350 980

Einsteinweg 17
6662 PW Elst
The Netherlands

Representative publications using NIRS

Anwar, A. R. et al. *Effective Connectivity of Cortical Sensorimotor Networks During Finger Movement Tasks: A Simultaneous fNIRS, fMRI, EEG Study. Brain Topogr. 29, 645–660 (2016).*

Colier, W. N. J. et al. *Simultaneous near-infrared spectroscopy monitoring of left and right occipital areas reveals contra-lateral hemodynamic changes upon hemi-field paradigm. Vision Res. 41, 97–102 (2001).*

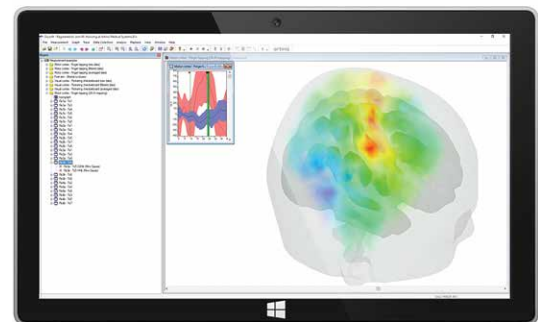
Collier, W. N. J. M., Binkhorst, R. A., Hopman, M. T. E. & Oeseburg, B. *Cerebral and circulatory haemodynamics before vasovagal syncope induced by orthostatic stress. Clin. Physiol. 17, 83–94 (1997).*

Mehagnoul-Schipper, D. J. et al. *Simultaneous measurements of cerebral oxygenation changes during brain activation by near-infrared spectroscopy and functional magnetic resonance imaging in healthy young and elderly subjects. Hum. Brain Mapp. 16, 14–23 (2002).*

Quaresima, V., Colier, W. N. J. M., van der Sluijs, M. & Ferrari, M. *Nonuniform Quadriceps O2 Consumption Revealed by Near Infrared Multipoint Measurements. Biochem. Biophys. Res. Commun. 285, 1034–1039 (2001).*

Van Beekvelt, M. C. P., Colier, W. N. J. M., Wevers, R. A. & Van Engelen, B. G. M. *Performance of near-infrared spectroscopy in measuring local O2 consumption and blood flow in skeletal muscle. J. Appl. Physiol. 90, 511–519 (2001).*

Van Beekvelt, M. C. P., Van Engelen, B. G. M., Wevers, R. A. & Colier, W. N. J. M. *Quantitative near-infrared spectroscopy discriminates between mitochondrial myopathies and normal muscle. Ann. Neurol. 46, 667–670 (1999).*



Technical specifications

TECHNOLOGY	Continuous wave near infrared spectroscopy using the modified Lambert-Beer law
MEASURES	Changes in oxy-deoxy hemoglobin and optionally regional tissue saturation index (TSI) using spatially resolved spectroscopy
DATA ANALYSIS SOFTWARE	OxySoft
OPERATING SYSTEM	Windows 10
LIGHT SOURCES	Temperature stabilized pulsed laser sources (class I according to IEC-60825-1, safety of lasers)
WAVELENGTHS	Standard nominal 765 and 855 nm, customizable
CHANNELS	1 to 108 channels
INDICATORS	Battery status, Bluetooth connection
DETECTORS	Temperature stabilized and cooled avalanche photodiode with ambient light protection
OPTODE HOLDERS	Multiple distances for muscle or head possible, multichannel generally customer specific
OPTODE DISTANCE	On the forehead arterial pulsation is still visible with 6 cm distance, for fNIRS 3-4 cm distance is recommended
POWER	Auto sensing: 110-240 V, approx. 40 W
DIMENSION	Weight: 7-8 kg, W x D x H: 37 x 30 x 9 cm
STORAGE	Real-time unlimited data storage
EXTERNAL INPUTS	Option to add 8 analog inputs at 50 Hz (250 Hz optional), ±4 V
ELECTROMAGNETIC COMPATIBILITY	With NMR compatible fibers, the instrument can be used inside the MRI. TMS / EEG / ECG does not interfere the optical signal
ENVIRONMENT	Operating temperature 10-27 °C, both source and detector stabilized. Altitude: 0-5750 m.
POWER	Auto sensing: 110-240 V, approx. 40 W
ACCESSORIES	The OxyMon can be combined with: AD input/output box - AD board - PortaSync - ParallelSync cable - OxySoft 3D Extension
NIRS + OTHER MODALITIES	We deliver the following packages: OxyMon and TMSI EMG package (2 channels or more) OctaMon+ and TMSI EEG package (16 channels or more)

Get a quote:

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What's in the box?

OxyMon research package

OxyMon
Fibers of your choice
Head cap & holders of your choice
License Key

Laptop
OxySoft data analysis software
User guide
Support in setting up your research