

BOBS™ - Blood Oxygen Binding System

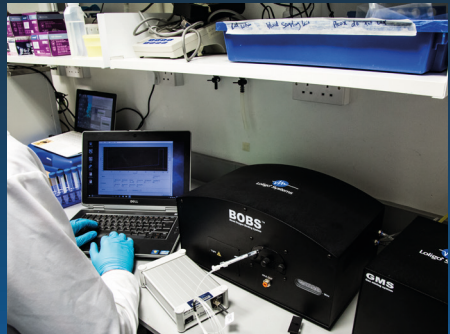
Whole blood, Hemoglobin, Myoglobin, Hemocyanin,
Hemerythrin, Neuroglobin, Leghemoglobin

O₂

CO₂

pH

°C



Loligo® Systems



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ABOUT

BOBS™ is a highly flexible tool for characterizing respiratory pigments from a wide range of organisms and temperatures by spectrophotometric scanning of tiny sample volumes inside a diffusion chamber combined with step-wise changes in pO_2 , pCO_2 , pH and temperature and real-time in vivo pH measurements. We offer a complete and computerized system for automated and fast oxygen equilibration curves (OEC) for determining $P_{50'}$ Hill Coefficients, Bohr effects, Root effects etc.

Exclusively licensed to Loligo® Systems, BOBS™ was invented and patented by researchers at the Alfred Wegener Institute (Germany).



**USE SAMPLE
VOLUMES
DOWN TO
1.5 μ L**

PACKAGE

SPECIFICATIONS

Basic system for oxygen binding measurements incl. spectrometer, light source, temperature control, gas humidification and PC software interface

- Ocean Optics spectrometer
- 190 - 885 nm optical resolution: 3 nm
- Integration time: 10 μ s – 10 sec
- Deuterium tungsten halogen lamp
- 200 - 2000 nm with shutter
- Peltier temperature control
- 10 - 45 °C
- Gas humidification system

Add-on pH sensing system including micro pH instrumentation from PreSens

- PreSens micro pH instrument
- Range: 5.50 - 9.00 pH
- Resolution: ± 0.01 pH (at pH 7)
- Accuracy: ± 0.05 pH (at pH 7)

Add-on gas mixing system including 4 x mass flow controllers from Brooks

- Brooks mass flow controllers
- O_2 , N_2 and CO_2
- Set points:
 - $O_2 = 0.01 - 100 \%$
 - $CO_2 = 0.03 - 6 \%$
- Response time: <1 sec
- Flow accuracy: $\pm 0.9 \%$ of set point