

# BIOPHOTONICS

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## WHITE PAPERS & APPLICATION NOTES



**Ocean Insight**

Application Note

**KEYWORDS**

- Point of care diagnostics
- Whole blood
- Methemoglobin

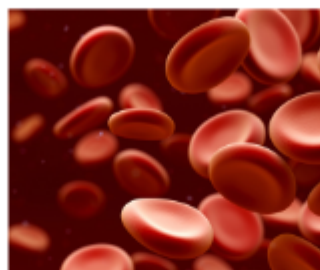
**TECHNIQUES**

- Absorbance
- Colorimetry

**APPLICATIONS**

- Blood analysis
- Medical diagnostics

### Whole Blood Analysis using UV-Vis Spectroscopy



The small size yet big performance of the Ocean ST microspectrometer makes it an ideal option for applications including medical diagnostics. In this example application, we use Ocean ST to measure absorbance of whole blood and hemoglobin.

#### Introduction

Point of care (POC) diagnostics have benefited greatly from the marriage of fiber optic spectroscopy and biofluidics, with photonics technologies playing a major role in addressing healthcare challenges from cancer screening to viral detection.

With its small footprint and excellent performance, the Ocean ST microspectrometer is an especially appealing option for POC applications where space is limited or integration into other devices or setups is necessary. Also, its versatility ensures that Ocean ST is a viable option for testing and diagnostics challenges requiring absorbance, fluorescence and other techniques.

## Whole Blood Analysis Using UV-Vis Spectroscopy

Point of care diagnostics have benefited from the marriage of spectroscopy and biofluidics, helping to address healthcare challenges from cancer screening to viral detection. The Ocean ST microspectrometer is an appealing option for POC applications where space is limited or integration into other devices is necessary. To test the viability of the Ocean ST for absorbance of blood samples, we measured both whole blood and methemoglobin, a form of hemoglobin that has been oxidized.

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