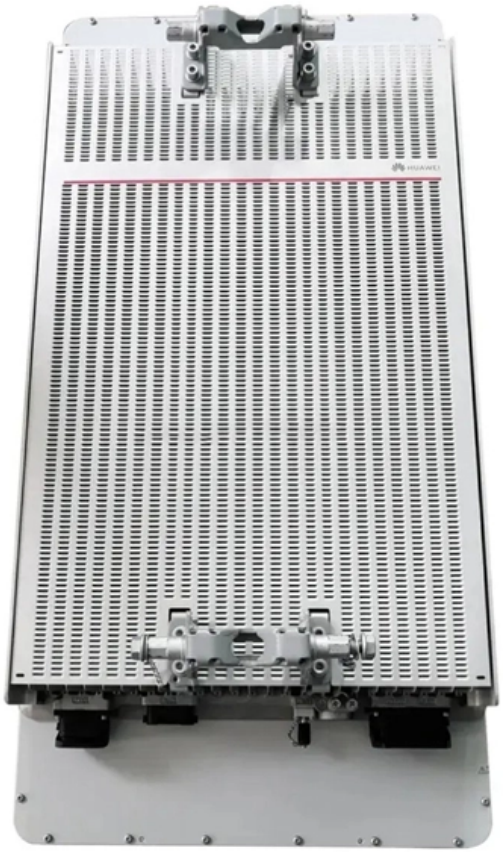
EIT Opto-Routing

Spectrometer Smart Network



Powered by EIT Opto-Routing

A Portable Fiber Optic Real-time Smartphone-based

A portable and cost-effective smartphone spectrometer was designed and tested for colorimetric analysis. The ambient light sensor of smartphone was

Artificial Intelligence-Powered Raman Spectroscopy through Open

Raman spectroscopy is a fast-growing and increasingly powerful analytical technique applied across diverse disciplines such as materials science, chemistry, biology and medicine. This

[2209.02775] Design of ultracompact broadband focusing spectrometers

We propose the inverse design of ultracompact, broadband focusing spectrometers based on adaptive deep diffractive neural networks (a-D 2 NNs). Specifically, we introduce and characterize

Opto-intelligence spectrometer using diffractive neural

This paper presents a novel flexible all-optical opto-intelligence spectrometer, termed OIS, using a diffractive neural network for high-precision spectral reconstruction,

Compact High Resolution Speckle Spectrometer by

Motivated by applications in mobile optical sensing, ultracompact high-resolution integrated spectrometers have attracted much interest. Here, a high-resolution

SlitNET: A Deep Learning Enabled Spectrometer Slit

Here, we introduce a spectrometer slit empowered by a deep learning model SlitNET. We trained a neural network to reconstruct synthetic Raman spectra with enhanced resolution from low

Smart IoT Spectrometer Solution , Teksun IoT Module

Get access to data derived from Spectrometer anytime, anywhere with Teksun's Smart IoT Spectrometer, which allows data to be stored on the cloud or even

Produktsuchmaschine für die Industrie 4.0

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SmartSpectrometer

The modular and intelligent spectrometer system "SmartSpectrometer" developed by Fraunhofer IOSB enables the monitoring of quality-relevant material parameters

Popular Downloads

PASCO Capstone v2.13. PASCO Capstone(TM) was designed to be the most powerful software available for high level physics and engineering applications or for anyone who wants the adv

Toward smart diagnostics via artificial intelligence-assisted surface

Additionally, smart diagnostics via AI-assisted SERS is a highly interdisciplinary field requiring collaboration between specialized research centers, universities and healthcare facilities.

Opto-intelligence spectrometer using diffractive neural

Our work provides a valuable reference for using diffractive neural networks in spectral interaction and perception, contributing to ongoing

SmartSpectrometer

Cost-effective modular quality and process control: The intelligent spectrometer system "SmartSpectrometer" enables the monitoring of quality-relevant material

(PDF) A low cost network of spectrometer radiation

A low cost network of spectrometer radiation detectors based on the ArduSiPM a compact transportable software/hardware data acquisition system

Artificial neural networks for quantitative online NMR spectroscopy

Such a "smart sensor" would be able to deliver valuable information on additionally occurring substances or unknown process conditions. Artificial neural networks Machine learning is

Smart Raman Spectrometer Accelerates Quality Control , Technology Networks

AnewRamanspectrometercombinesnon-destructiveanalysis,automatedsamplingand flexible lasers to enable faster at-line quality control.

From Smartphones to Smart Spectrophotometers: How

Smart screen displays, advanced data management software, and network communications have made smart spectrophotometers easier to use,

Opto-intelligence spectrometer using diffractive neural networks

This paper presents a novel flexible all-optical opto-intelligence spectrometer, termed OIS, using a diffractive neural network for high-precision spectral reconstruction, featuring low energy

SmartSpectrometer--Embedded Optical Spectroscopy

Thecombinationofminiaturisedspectrometertechnology,aspectrometer-independent network interface and a neural network that requires

On-chip Fourier-transform spectrometers and machine learning

On-chip Fourier-transform spectrometers and machine learning: a new route to smart photonic sensors ALAINE HERRERO-BERMELLO,1,* JIANGFENG LI,2 MOHAMMAD KHAZAEI,2 YURI

ENABLING SMART SPECTROSCOPY VIA ARDUINO IOT

c. SpectrometerInterfaceandSignalProcessingUsingtheproprietarystellarnet_driver3 SDK,thescriptinitializestheStellarNetspectrometer,configuresacquisitionparameters (integration time, averaging,

A smart handheld Raman spectrometer with cloud and AI deep

Raman spectrometry has proven to be by far the most powerful noninvasive analytical technique for direct material identification. In this paper we introduce the first smart Raman device

High-sensitive Smartphone-based Raman System based on Cloud

In this paper, a smart phone Raman system is studied. By the optical path design and slit coupling technology, the sensitivity of the device is improved while the size of the spectrometer itself is

OEM Spectrometer Solutions , StellarNet

Standard Spectrometers for OEM Many of StellarNet's standard spectrometer products can be used for OEM applications and integrated into full systems.

Smartspectrometer embedded optical spectroscopy for applications in

Multivariate data analysis is needed to integrate optical spectrometers as sensors. Therefore, a spectrometer with integrated artificial intelligence (AI) called SmartSpectrometer and its interface is

SmartSpectrometer

Kostengünstige modulare Qualitäts- und Prozesskontrolle: Das intelligente Spektrometersystem "SmartSpectrometer" ermöglicht die Überwachung von

SmartSpectrometer--Embedded Optical Spectroscopy

The ongoing digitization of industry and agriculture can benefit significantly from optical spectroscopy. In many cases, optical spectroscopy

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