

# Spectrometer Smart Network





## Spectrometer Smart Network

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### **A Portable Fiber Optic Real-time Smartphone-based**

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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**

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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**

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

## **Opto-intelligence spectrometer using diffractive neural**

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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**

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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**

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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**

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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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i-need ist die Produktsuchmaschine für die Industrie 4.0. 22000 Produkte von über 1000 verschiedenen Herstellern zusammengefasst in

## SmartSpectrometer

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

## Popular Downloads

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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**

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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**

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

## **SmartSpectrometer**

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

## **(PDF) A low cost network of spectrometer radiation**

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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**

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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**

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A new Raman spectrometer combines non-destructive analysis, automated sampling and flexible lasers to enable faster at-line quality control.

## **From Smartphones to Smart Spectrophotometers: How**

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

## **Opto-intelligence spectrometer using diffractive neural networks**

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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

## **Smart Spectrometer--Embedded Optical Spectroscopy**

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The combination of miniaturised spectrometer technology, a spectrometer-independent network interface and a neural network that requires

## **On-chip Fourier-transform spectrometers and machine learning**

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



## **ENABLING SMART SPECTROSCOPY VIA ARDUINO IOT**

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c. SpectrometerInterfaceandSignalProcessing Using the proprietary stellarnet\_driver3 SDK, the script initializes the StellarNet spectrometer, configures acquisition parameters (integration time, averaging,

## **A smart handheld Raman spectrometer with cloud and AI deep**

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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**

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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**

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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**

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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

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

## SmartSpectrometer--Embedded Optical Spectroscopy

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

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