

The authors develop an imaging-based intelligent spectrometer on a plasmonic "rainbow" chip. It can accurately and precisely determine the spectroscopic and polarimetric information of the illumination ...

The impressive Compound Annual Growth Rate (CAGR) of 33.06% and a growth rate of 36.8% demonstrate the increasing demand for NIR spectrometers in Gabon, reflecting advancements in ...

In recent years, researchers and major industrial players have shifted focus toward developing miniaturized, portable, and inexpensive spectrometer systems. However, due to the classic optical ...

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Here, we develop a compact plasmonic "rainbow" chip for rapid, accurate dual-functional spectroscopic sensing that can surpass conventional portable spectrometers under selected ...

To achieve multi-peak spectral analysis and ORD sensing with the proposed compact rainbow spectrometer, additional sets of training and testing data was collected under double-wavelength and ...

Here we report an intelligent on-chip spectrometer by integrating an on-chip rainbow trapping phenomenon with a compact optical imaging system.

Here, we develop a compact plasmonic "rainbow" chip for rapid, accurate dual-functional spectroscopic sensing that can surpass conventional portable spectrometers under selected conditions. The ...

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