

In this article, we develop a high-resolution single-pixel multimode fiber spectrometer and demonstrate its ability to reconstruct arbitrary spectra. The single-pixel detection is achieved by ...

In our work, we built a three-channel imaging spectrometer system and designed a compatible special fiber bundle probe for diffusive spectral detection. The system can synchronously ...

A compact broadband and ultrahigh-resolution imaging spectrometer (CBURIS) is presented, which comprises a microlens array, multiple fiber bundles, a microscope, and a two ...

er imaging spectrometer based on the tomographic reconstruction of proton energy deposition in a layered fiber array. Modeling indicates that spatial resolution of approximately 1 mm and energy ...

A compact broadband and ultrahigh-resolution imaging spectrometer (CBURIS) is presented, which comprises a microlens array, multiple fiber ...

We report on a proof-of-concept snapshot imaging spectrometer developed using an array of optical fibers fabricated with 2-photon polymerization (2PP). The dense input array maps to ...

The Large Fiber Array Spectroscopic Telescope: fiber feed and spectrometer conceptual design Chad Bender, J. Roger Angel, Joel Berkson, Peter Gray, Samuel Halverson, et al.

The optical layout of the ultrawide-field-of-view ultrahigh-spectral-resolution imaging spectrometer (UFOV-USR-IS) based on a grating-beamsplitter interferometer is shown in Fig. 1, ...

In this paper, we present a novel snapshot imaging spectrometer based on the pixel-level filter array (PFA), which can simultaneously obtain both spectral and spatial information.

Parallel spectroscopy in the visible spectral range is applied in various analytical tasks ranging from industrial inspection via digital farming to life sciences. To address parallel distributed sensing ...

Over the past decade, a plastic scintillation fiber array model has been developed for fast neutron detection, utilizing the mechanism of one or double neutron-proton scattering to measure ...

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