

6 Optical Fiber Chromatography





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Design and Fabrication of 3D-Printed Lab-On-A-Chip Devices for Fiber

In this work, 3D-printed micro uidic devices are designed and fabricated for fl optical chromatographyandsorting. Opticalchromatographyisperformedbyinsertingasingle-mode optical ber into the

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Towards integrated optical chromatography using

We present a new advance in optical chromatography potentially enabling the unique beam delivery properties of photonic crystal fiber (PCF) to be

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Fiber-optic cable

A fiber-optic cable, also known as an optical-fiber cable, is an assembly similar to an electrical cable but containing one or more optical fibers that are used to carry

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Integrated optical chromatography chip. PCF is inserted

Integrated optical chromatography chip. PCF is inserted into the chip through a fiber channel and used to simultaneously launch lasers operating at $\lambda = 1070\text{nm}$ and $\lambda = 1550\text{nm}$

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Design and Fabrication of 3D-Printed Lab-On-A-Chip Devices for Fiber

Optical chromatography is performed by inserting a single-mode optical fiber into the device creating a counter-propagating laser beam to the fluid flow.



Mapping the Chemistry of Hair Strands by Mass

Techniques for the chemical analysis of hair have traditionally involved bulk analyses of entire hair strands using chromatography and inductively coupled plasma mass

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Selection of Optical Fiber for Chromatographic Detectors and Remote

It is the fiber of choice for most deep UV applications, especially when smaller Introduction diameter fiber is required. Optical fiber has been used for many years in chromatographic applications which

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Optical chromatography using a photonic crystal fiber with on

Mentioning: 23 - We describe the realization of integrated optical chromatography, in conjunction with on-chip fluorescence excitation, in a monolithically fabricated polydimethylsiloxane (PDMS)

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Forensic Fiber Examinations Guidelines , Office of Justice Programs

Guidelines for conducting pyrolysis gas chromatography (PGC) of textile fibers are provided in chapter 5. These guidelines are intended to assist individuals and laboratories that conduct PGC in their

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Towards integrated optical chromatography using photonic crystal fiber

Optical chromatography is a powerful technique, capable of separating micron-sized



particles within a fluid flow, based on their intrinsic properties, including size, shape and refractive

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Design and Fabrication of 3D-Printed Lab-On-A-Chip Devices for Fiber

To demonstrate optical chromatography in a 3D-printed micro-fluidic system, a LOC device was designed and fabricated to implement the opposing optical and Stokes forces on micron-sized particles.

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Toward Waveguide-Based Optical Chromatography

The further development of fiber-based optical chromatography techniques requires a better understanding of the optical forces exerted on the

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Overcome chromatography challenges with fiber

One such technology is Fibro, which uses a proprietary structure that overcomes the diffusional and flow limitations of packed bed chromatography purification

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Do You Know The Chromatographic Order Of Fiber Optics?

We all know that in the fiber optic cable, more cores are used to distinguish the difference between different cables with color, today we will introduce in detail all the colors in the fiber.

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High Performance Liquid Chromatography (HPLC)

OPTICAL FILTERS AND DIFFRACTION GRATINGS IN HIGH PERFORMANCE LIQUID



CHROMATOGRAPHY High Performance Liquid

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In-line fiber optical sensor for detection of IgG aggregates in

Here we show a novel fiber optical in-line sensor, based on localized surface plasmon resonance (LSPR), for specific detection of IgG and IgG aggregates during affinity chromatography.

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Selection of Optical Fiber for Chromatographic Detectors and Remote

Optical fibers are routinely used in liquid chromatographic detectors as a means of simplifying optical designs. Selection of the appropriate fiber is an important factor in achieving

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Fiber-based monolithic columns for liquid chromatography

Our paper addresses monolithic columns based on fiber stationary phases that are externally prepared and then packed or inserted into a column. We report on the current status of fiber-based monolithic

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Design and Fabrication of 3D-Printed Lab-On-A-Chip

In this work, 3D-printed microfluidic devices are designed and fabricated for optical chromatography and sorting. Optical chromatography is

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Design and Fabrication of 3D-Printed Lab-On-A-Chip Devices for Fiber



In this work, 3D-printed microfluidic devices are designed and fabricated for optical chromatography and sorting. Optical chromatography is performed by inserting a single-mode optical

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Integrated optical chromatography chip. PCF is inserted

In this work, we designed and fabricated a 3D printed lab-on-a-chip device for fiber-based dual beam optical manipulation.

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Fiber Optic Basics

Fiber Optic Basics Optical fibers are circular dielectric wave-guides that can transport optical energy and information. They have a central core surrounded by a

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Description of the response of a fiber optic velocity sensor applied to

The sensor, initially developed for capillary gas chromatography (GC), is a distributed fiber optic sensor that measures the velocity of vapors zones in real time, as they migrate inside the

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High performance liquid chromatography coupled to an optical fiber

An analytical method based on separation by high performance liquid chromatography (HPLC) and detection by optical fiber (OF) coated with an enzyme (I

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Optical chromatography using a photonic crystal fiber



We describe the realization of integrated optical chromatography, in conjunction with on-chip fluorescence excitation, in a monolithically fabricated

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Optical chromatography using a photonic crystal fiber with on-chip

We compare the performance of the system to a standard ray optics model and use the system to demonstrate both size-driven and refractive index-driven separations of colloids.

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Design and Fabrication of 3D-Printed Lab-On-A-Chip Devices for

In this work, 3D-printed microfluidic devices are designed and fabricated for optical chromatography and sorting.

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