

Laser Diode Fluorescent Filter



Overview

□ Laser Diode Filters are designed to maximize transmission of the primary emission wavelength of the diode, while eliminating secondary extended emissions that are typical of laser diodes. The precision plane parallel substrates allow for minimum beam deviation and low wavefront. LaserMUX™ beam combiners from Semrock (Fig. 1). These filters are essential for ensuring high signal throughput, reducing background. We offer filters designed to target the following common fluorophores: BFP, CFP, WGFP, GFP, FITC, Alexa Fluor 488, YFP, tdTomato, TRITC, Texas Red, mCherry, Cy3, 5, Cy7, and LI-COR IRDye 800CW. While many of the filters are offered individually, some are only offered in a three-piece set. In response to the many emerging laser-based applications in industrial imaging, including 3-D Metrology, Microscopy, Raman Spectroscopy and Cytometry, MidOpt® offers a collection of optical filters designed for laser applications. Longpass edge and laser rejection filters can be used for rejecting unwanted noise at the detector. Optimized for your specific OEM application and fluorophore, Coherent will work with your team to design a perfectly matched filter set.



Article Content

Laser Diodes: A Comprehensive Guide

Laser diodes play a crucial role in flow cytometry, a technique used to analyze and sort cells based on their properties. These small, efficient devices emit intense

Overview of Faraday Lasers | Springer Nature Link

In addition to the Faraday anomalous dispersion atomic filter providing light feedback for specific frequencies, a resonant cavity is formed between the coupling output mirror having a specific

Interference-filter-stabilized external-cavity diode lasers

We have developed external cavity diode lasers, where the wavelength selection is assured by a low loss interference filter instead of the common diffraction grating. The filter allows a

Semrock MaxDiode Laser Diode Clean-up Filters

MaxDiode filters are ideal for both volume OEM manufacturers of laser-based fluorescence instrumentation and laboratory researchers who use diode laser for

Optics of a Flow Cytometer

As an analysis platform, flow cytometry relies on interrogation of individual cells by laser light and the collection of the resulting fluorescence and scatter. The optics

Introduction to Fluorescence Filters: Principles,

Fluorescence filters are critical in a variety of life science and molecular diagnostic applications, each with unique filter requirements. Fluorescence Microscopy:

Optical Filters for Laser-based Fluorescence Microscopes

Optical filters play a vital role in obtaining maximum performance from complex, expensive, laser-based microscopes. Learn why in this white paper.

Fluorescence Filters for Microscopy and Imaging

Fluorescence filter sets can be either single or multi-band and can exist in multiple configurations, with the most common being fluorescence filter cubes

Introduction to Fluorescence Filters: Principles,

Learn how to choose the right combination of fluorescence filters for your fluorophores and optical requirements

Fluorescent Filter Cubes | Accessories | Microscope

A wide variety of filter cubes from leading manufacturers to match many of the fluorophores and light sources most commonly used across all applications.

Fluorescence Filters

Achieve low-noise fluorescence detection in life sciences instrumentation by efficiently separating the fluorescence from any scattered excitation light.

Fluorescence Imaging Filters

These excitation, emission, and dichroic filters are designed specifically for use in fluorescence imaging applications. They are fabricated at industry-standard dimensions that make them compatible with

Overview of Filters and Light Sources

Learn how excitation and emission filters work and what types of light sources are available for fluorescence experiments.

Optical Filters and LED Illumination

Work Smarter With the Right Optical Filters Optical filters can make or break a fluorescence microscopy experiment. These are crucial components of every fluorescence microscope setup, and even have

Faraday Laser: A Frequency-Stabilized Diode Laser

It elaborates on the significant advantages of Faraday lasers, based on the Faraday atomic optical filter, including their ability to automatically align with atomic

Expert Diode Laser Focusing Using an IR /Red Filter

In today's video I show you how to focus your Diode laser to a sharper point by removing the light bleed. We use an adjustable optical IR Filter to remove the light bleed when focusing the laser.

Electrical Pulsing of a Laser Diode for Usage in Fluorescence

The main reasons for using a pulsed laser source is that the laser diode can be overdriven without damage and that the fluorescence microscope performance is enhanced by using a pulsed source.

Laser Diode Clean-Up Filters

Laser Diode Filters are designed to maximize transmission of the primary emission wavelength of the diode, while eliminating secondary extended emissions that are typical of laser diodes. the precision

Optical Filters for Laser Applications & Laser Diodes

Optical filters for blue, red, and green laser applications. Perfect for industrial imaging, including 3-D Metrology, Microscopy, and more.

Fluorescence Filters for Microscopy and Imaging

Fluorescence Filters. There are 3 types of optical filters in a standard fluorescence microscope filter set: an excitation filter, an emission filter, and a

Tiffen 58mm FL-D Fluorescent Camera Lens Filter

These filters are available in most sizes and in the following varieties: FL-D -- When using daylight film in florescent lighting. FL-W -- When using tungsten film in florescent lighting. Amazon Use FL-D

Fibre coupled micro-light emitting diode array light source with ...

Such LED-based integrated and micropackaged optical fibre light sources emitting from the fibre spectrally filtered light, could become a new option in custom designed optical fibre-coupled

FLUORESCENCE IMAGING: Optical filters optimize

The advent of lasers as fluorescence light sources imposes new constraints and demands on the optical filters required for optimal operation of these laser-based

Optical Filters for Laser-based Fluorescence Microscopes

Optical Filters Optimized for Lasers Various types of powerful, efficient, and cost-effective lasers have evolved during the last four decades. Lasers tend to be classified by the gain medium and pumping

Spectral filtering of light-emitting diodes for fluorescence detection

The use of light-emitting diodes (LEDs) for fluorescence detection has recently gained much interest. The broad wavelength emission of LEDs requires spectral filtering that is not

Compact Laser-Induced Fluorescence Detector with

In many research fields, the demand for miniaturized laser-induced fluorescence (LIF) detection systems has been increasing. This work has

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