Optical Interference Filters For Raman Spectroscopy Applications
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Materion is an industry leader in the design and manufacture of precision optical filters for Raman spectroscopic applications, supplying filters in small, prototype quantity as well as in large OEM volume. All filters are designed to customer specifications.

**Wavelength Range:**
Materion routinely produces custom optical interference filters for Raman spectroscopy applications over the broad wavelength range of 244nm to 1064nm.

**Bandpass Filters**
- High transmission
- Effective blocking of laser plasma lines wide spectral blocking range
- Designed for use at normal or non-normal incident angle
- Image quality available
- Low-to-no autofluorescence

**Markets/Applications:**
- Raman Fiber Optic Probes
- Raman Process Analyzers
- Raman Imaging Spectrographs
- Raman Microscopes

**Dichroic Beam Splitters**
- Transmit or reflect Raman scattering
- Transmit or reflect laser excitation
- Steep slope with low polarization splitting
- Use at 45 deg AOI or at other angle
- Low-to-no autofluorescence

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[Graph: Laser Bandpass Filter - Fully Blocked, 200 - 1200nm]

[Graph: Dichroic Beam Splitter @ 45 deg]
Materion Barr Precision Optics & Thin Film Coatings is a leading manufacturer and supplier of precision optical filters, hybrid circuits, flexible thin films and custom thin film coating services. We offer coating solutions for manufacturers in the defense, commercial, space, science, astronomy and thermal imaging markets.

**Laser Rejection (Steep Edge) Filters**
- Deep blocking at laser line (Measured OD6+)
- Steep slope (<0.5% achievable, from OD 6 to 50% T)
- High transmission as close as 100cm⁻¹ from laser line to 4000 cm⁻¹ and beyond if required
- Low ripple in transmission band
- Designed for use at normal or non-normal incidence
- Low-to-no autofluorescence

**Laser Rejection Notch Filters**
- Deep blocking at laser line
- Broad spectral transmission range
- Single or multiple line rejection

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**785nm Rejection Filter**

![Transmission vs Wavelength Graph](image1)

**532nm Rugate Notch Filter**

![Transmission vs Wavelength Graph](image2)
Materion, a global advanced materials company, dedicated to providing solutions that enable our customers’ technologies and drive their growth. Our products include precious and non-precious specialty metals, precision optical filters, inorganic chemicals and powders, specialty coatings, specialty-engineered beryllium alloys, beryllium and beryllium composites, and engineered clad and plated metal systems. Materion business is structure to enhance our ability to provide customers with innovative, best total-cost solutions.