THz Band Pass Filters

我们的太赫兹带通滤波器被设计用来透过20-3000 μm波段的辐射。该滤波器是用带有小孔的金属箔薄片制成的。孔的结构取决于所需的波长。

该滤波器解决了太赫兹波段的准光学过滤问题。在孔径比比较很高的情况下，可以得到单色化程度比较高的辐射。该型带通滤波器，具有很高的光谱分辨率与高孔径比，并且具有较小的整体尺寸和重量。

Applications:

- THz spectroscopy;
- Imaging;
- THz testing devices;
- Astronomy, space based astronomy, and astrophysics;
- Materials research;
- Sensors and detectors;
- Electro-optic research.

Features:

- Any pass band in the range from 0.1 to 15 THz (from 3000 to 20 μm);
- High transmittance (60-90%) in pass band;
- Low transmittance (<4%) in stop bands ;
- Available in cryostats and electro-optic assemblies;
- Damage threshold is 65-100 W/cm^2 (in the range from 0.1 to 15 THz);
- Mounted in holders.

Part Number Designation for Tydex Band Pass Filters: BPF <frequency, THz>-<aperture, mm>

Sizes and Shapes

Round filters with clear aperture/outer diameter 24/31, 35/44, and 47/60 mm and pass band 0.3, 0.5, 1.0, 3.0, 10.0, and 15.0 THz are available from stock. Alternate sizes and custom designs are available upon request.

Transmission Curves

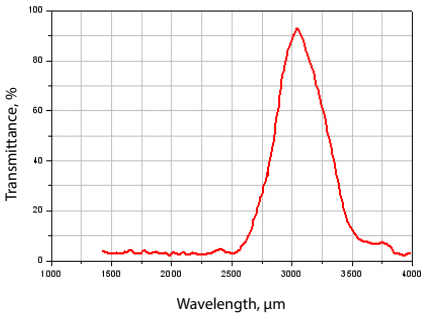

Fig. 1 Transmission of BPF0.1.

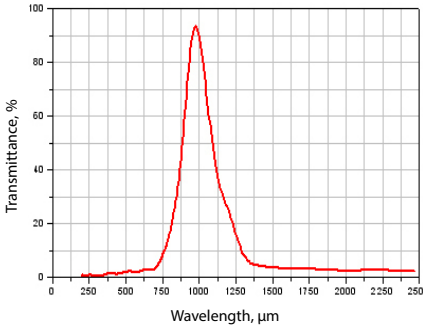

Fig. 2 Transmission of BPF0.3.

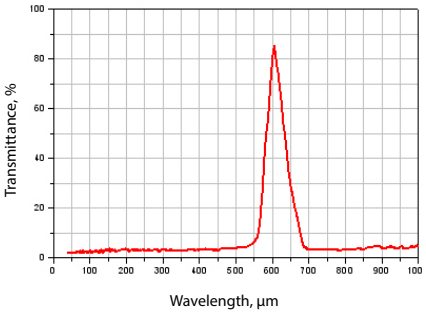

Fig. 3 Transmission of BPF0.5.

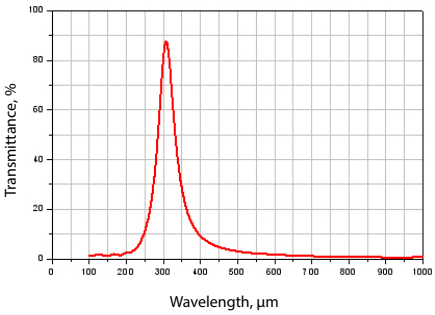

Fig. 4 Transmission of BPF1.0.

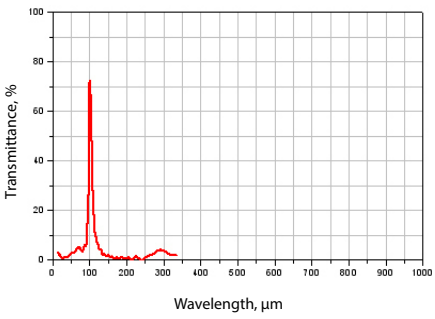

Fig. 5 Transmission of BPF3.0.

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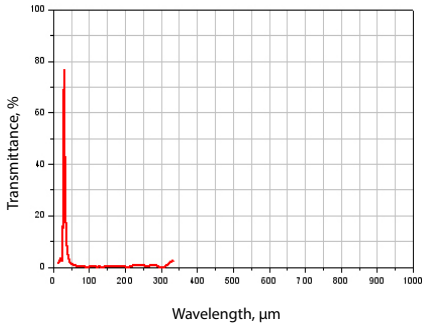

Fig. 6 Transmission of BPF10.0.

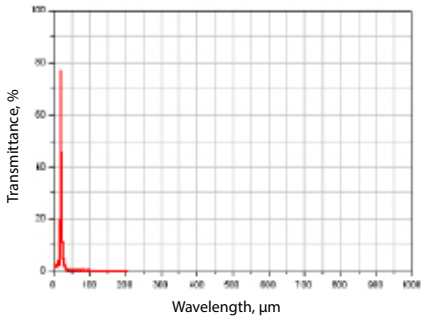

Fig. 7 Transmission of BPF15.0.