

## Alpha Spectra, Inc. Data Sheet

### Compton Suppression Detectors

Grand Junction, Colorado

Alpha Spectra, Inc. offers many Compton Suppression Detector designs. We supply small and large volume in both NaI(Tl) and BGO annular detectors. We build for Standard, Low Background and Ultra-Low Background applications. The options we offer are discussed here.



**Figure 1.** NaI(Tl) 9" x 9" Axial Through Well Annulus with Plug Detector.

The detector shown in Figure 1 is the most common Compton Suppression annulus that we manufacture. This NaI(Tl) design easily mates with a coplanar HPGE. The axial through well can be modified to any diameter that is needed. We also provide "T-well" annular type detectors.



**Figure 2.** NaI(Tl) 9" x 9" Low Background Axial Through Well Annulus with Plug Detector.

Very low background NaI(Tl) detectors are shown in Figures 2 and 3.



**Figure 3.** NaI(Tl) 11" x 16" Axial Through Well Annular Detector.

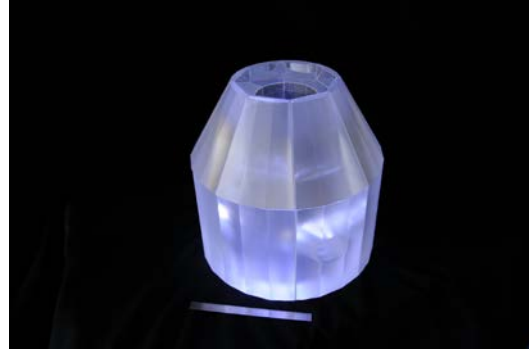


**Figure 4.** ASI BGO Annular Detector shown with Backcatchers.

The ASI BGO Annular Type detectors are typically used in applications where there is a confined space and maximizing the volume of scintillator around the host detector is important. Notice that the "nose" of the detector has a taper. The taper makes it possible to nest several detectors together in a compact configuration.



**Figure 5.** ASI BGO Annular Detector BGO segmented crystal blanks shown.



**Figure 7.** ASI Very Large BGO Annular Detector showing segmented crystal blanks glued together.



**Figure 6.** ASI BGO Annular Detector BGO completed assembly.



**Figure 8.** ASI Very Large BGO Annular Detector showing complete assembly.



**Figure 7.** ASI Special planar Compton Suppression Units. Nominal size 9"x9"x3".

If you do not see the type of detector that you want here, please contact us and our design team will work with you to develop and design a custom detector configuration for your measurement application