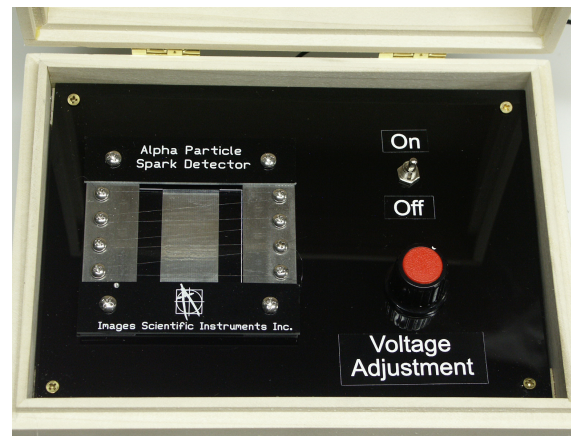


Images Scientific Instruments Inc.  
109 Woods of Arden Road  
Staten Island NY 10312  
718.966.3694 Tel  
718.966.3695 Fax  
[www.imagesco.com](http://www.imagesco.com)

## Alpha Particle Spark Detector

**All high voltage devices are potentially dangerous and must be operated with extreme caution. Do not operate this device without reading the instructions and disclaimer on page 2.**



This alpha particle spark detector utilizes a 8000 volt negatively-charged electrode and thin diameter .003" tungsten wire connected to ground that are strung through the air approximately 0.125" above the electrode. The single wire is strung between each screw and tightened to two steel plates. When an alpha particle passes in-between the wire and the electrode it ionizes the air between. The high voltage potential between the wires and the electrode causes an avalanche effect that we see as an electrical discharge between the wires and the electrode.

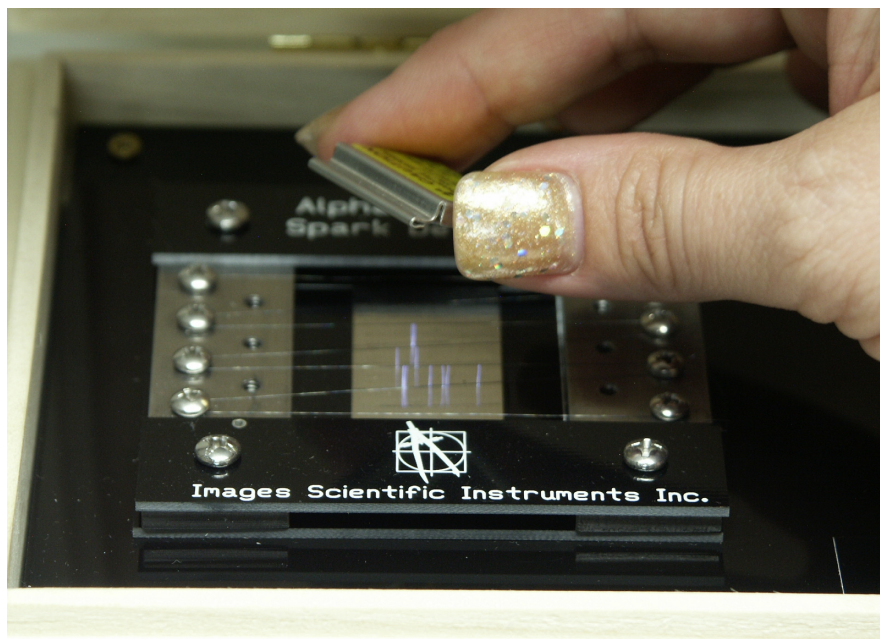
This detector is only sensitive to alpha ( $\alpha$ ) particles and will not detect beta( $\beta$ ), x-ray or gamma( $\gamma$ ) radiation. Requires a strong alpha source comparable to those sold by Images.

To Use:

**Under no circumstances should anyone touch the wires or HV plate underneath the wires on the front panel.**

Plug in power supply from the wall transformer into back of the Alpha Particle spark detector. Switch power to unit on using on-off switch on front panel.

Hold alpha particle source close to the wires on the top panel, approximately 0.25 to 0.5 inches above wires. Adjust voltage of power supply to the lowest voltage possible for detection. You will see a spark between the ground wires and HV plate when the unit detects alpha particles.



Additional Information:

<http://www.imagesco.com/geiger/alpha-particle-spark-detector.html>

YouTube Videos

<http://www.youtube.com/watch?v=RzglpP3D2tQ>

<http://www.youtube.com/watch?v=y2PYovHdj5o>

**Disclaimer: Images SI Inc. or its affiliates assume no responsibility for damages consequential or inconsequential or incidental for the use or misuse of the Alpha Particle Spark Detector apparatus. Images makes no warranties, expressed or implied to the fitness of this device for any particular purpose other than that which is listed herein.**