

- Battery-biased sample holder
- Electronically-controlled pressure regulator
- Reliable and easy to operate



The Ion Recoil Contamination Avoidance Package (RCAP-2) is an accessory for ORTEC's OCTÊTE™ Plus Alpha Spectrometer. It is intended for alpha spectroscopists quantifying radionuclides which may contaminate charged-particle (ULTRA™ or surface barrier) detectors by ion recoil.

To avoid recoil contamination, one can reduce the momentum of the positively-charged recoils by increasing the vacuum chamber pressure and negatively biasing the sample holders, to repel the ions from the detector. The result is achieved at some minor cost in energy resolution.

In an OCTÊTE Plus equipped with RCAP-2, all sample holders are negatively biased at -12 volts.

The RCAP-2 can control the pressure in the range of 10^{-3} Torr to one atmosphere. The pressure control package consists of:

- A solenoid valve for On/Off control, a Granville-Philips® Convector gauge tube for pressure measurements, and a valve for pump throttling at high pressures, **all mounted on a brass manifold**
- A Granville-Philips Vacuum Controller with digital readout of pressure and set point
- Eight biased sample trays

Note that pressures below 1 Torr in the vacuum chambers can also be read and displayed with the OCTÊTE™ Plus on the front-panel digital display.

Ion Recoil Contamination Avoidance Package (for Alpha Spectrometers) Model RCAP-2

Ordering Information

To order, specify:

Model Number	Description
RCAP-2-120V	Ion Recoil Contamination Avoidance Package. 120 Volt.
RCAP-2-240V	Ion Recoil Contamination Avoidance Package. 240 Volt.

Specifications subject to change
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