Peltier-cooling-type High Performance Cloud Chamber

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Problems in Conventional Cloud Chambers

- Needs preparation and resupply dry-ice
- Hard to long time continuing presentation
- Requires several minutes to start observation
- Radiation tracks are not observed under bad weather condition
- Limited to just observation of alpha-rays track

Features of this products

- Dry-ice Free!
- Clear track observation and Stable long time (hole day operation with no support is available)
- Observation of not only Alpha-rays tracks, but also Beta-rays tracks, and furthermore, photoelectron tracks by Gamma-rays or X-rays.
  - Intuitively radiological education of the difference in interaction with materials from a kind of radiation-rays
- Quite Cheap Price! Most parts are common consumer items.

Comparison of EX-type, SD-type and the previous version.

Main unit of standard type (SD) Peltier-cooling cloud chamber.
This equipment consists of the main unit into which Peltier devices, an air cooling heat-sink, and LED lightings were packed compactly, and the high-voltage unit. High-intensity LED lighting enable us to observe tracks in the bright room. Although the power supply of 12V/5V is required, it can obtain using the ATX power supply taken out from old PC. After the power ON, only 20sec is required to observe tracks. Once start observation, no support to add alcohol is required during half day.

Observation of radiations using conventional cloud chambers were limited to only alpha-ray tracks and had many restrictions. While this Peltier-cooling-type high performance cloud chamber enable us to observe **very clear radiation tracks** in a few tens of seconds after a power supply even under a bad weather condition, of cause **without dry ices**. The technical features such as clearing assorted ions in air using HV-unit, high-intensity LED illuminations and the fabric of the chamber enable us to **observe beta-ray tracks**. Not only simple observation of alpha-ray tracks, but also compare with beta-rays track or a **delta-ray tracks arisen from gamma rays** enables us to perform far deep radiological education related to interactions of radiations and materials.
Price list

1. Two unit SD-type Peltier-cooling type high performance cloud chamber set
   
   **Unit price ¥34,000**

   Two unit SD-type main unit and one HV unit. No power supply unit is included.

2. One unit SD-type Peltier-cooling type high performance cloud chamber set
   
   **Unit price ¥20,000**

   One unit SD-type main unit and one HV unit. No power supply unit is included.

3. One unit EX-type Peltier-cooling type high performance cloud chamber set
   
   **Unit price ¥40,000**

   One unit EX-type main unit and one HV unit. No power supply unit is included.

4. ATX power supply unit
   
   **Unit price ¥2,000**

   Common power supply unit for desktop PC. These units are used in Japan and we cannot ensure usage in foreign country. Please use AT/ATX/SFX power supply unit in your country and connect PS ON port to GND. Otherwise, 5A of 12V supply and also 2A of 5V supply is required for one unit.

Shipping fee and consumption tax (after Oct. 1 2019, 10%) is not included above.

Now we consider EMS shipping and PayPal payment. With other style, consultation is required.

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