

Photoelectric Effect

When light illuminates a material, due to the energy transfer from the light to the carriers in materials, electrons will be ejected from the surface. This effect is called the photoelectric effect, and the emitted electrons are called photoelectrons. According to experiments, the results show that only the light that exceeds the threshold frequency can generate photoelectrons. Below that threshold, no electrons are emitted from materials. That threshold is called the work function, which is attributed to the electron binding energy. The photoelectric effect experiments are commonly performed on quantum devices for characterization at cryogenic temperatures.

Related Products:



X-1AL ECONOMY

- Easy optical alignment
- All purpose
- Low cost

Cryostat Model	Type
DMX-1AL	CCR
FMX-1AL	CCR



X-1SS HIGH PERFORMANCE

- Best for electrical, magnetic, and optical experiments

Cryostat Model	Type
DMX-1SS	CCR
FMX-1SS	CCR
GMX-1SS	CCR
LT3-WMX-1SS	Flow



X-20 ULTRA-LOW VIBRATION

- Vibrations < 3-5 nm
- Quick and easy sample access via pop-off shroud
- High temperature stability

Cryostat Model	Type
CS202-DMX-20	CCR
CS204-DMX-20	CCR
CS210-GMX-20	CCR



LT4

- All-purpose, low cost flow cryostat
- Maintains the high cooling power of the LT3
- UHV option available

Cryostat Model	Type
LT4	Flow