

MINI PEROvap

MINI PEROVSKITE DEPOSITION SYSTEM

powered by **CREAPHYS**
MBRAUN GROUP

PERFECT
PEROVSKITE
PERFECT
PROCESS



- Compact design
- Can be integrated in existing MBRAUN gloveboxes (through antechamber)
- Economic solution
- Short delivery time
- Easy retrofit in existing gloveboxes
- Applications:
 - Perovskite compounds
 - Organic deposition

MINI PEROvap

MINI-DEPOSITION TOOL



DESCRIPTION

The MINI PEROvap consists of a dry turbo-molecular pump system with up to 70 l/sec (Pfeiffer, HiPace80), as an option it can be equipped with a larger pump system with a LN2 cold trap.

The used highly volatile organic precursors require a defined evaporation at very low temperatures. Moreover, they can easily be re-evaporated from all chamber surfaces. The MINI PEROvap is equipped with a vacuum chamber and an cooled inner enclosure, which allows a higher repeatability, independency on environmental conditions and gives an additional lever to fine-tune the perovskite deposition.

The MINI PEROvap can be additionally equipped with several process components (sources, shutters, mask/substrate shutter). Furthermore a temperature control of substrate heating/cooling can be added.

VACUUM CHAMBER

Vacuum chamber

Stainless steel corrosion resistant

Inner enclosure

Stainless steel

Temperature-controlled range: up to -40°C to 80°C

DEPOSITION SOURCES

Special Low Temperature Evaporator (SLTE): 50°C - 600°C

Very fast ramp-down

Ultra-Low Temperature Evaporator (ULTE): -10°C - 170°C

Temperature stability: < +/- 0.1 K

Individual Quartz Crystal Monitor (QCM): temperature controlled up to -40°C to 80°C

Up to 4 sources

Layer uniformity < +/-5 %

Low cross-talk between each source and its neighboring QCM

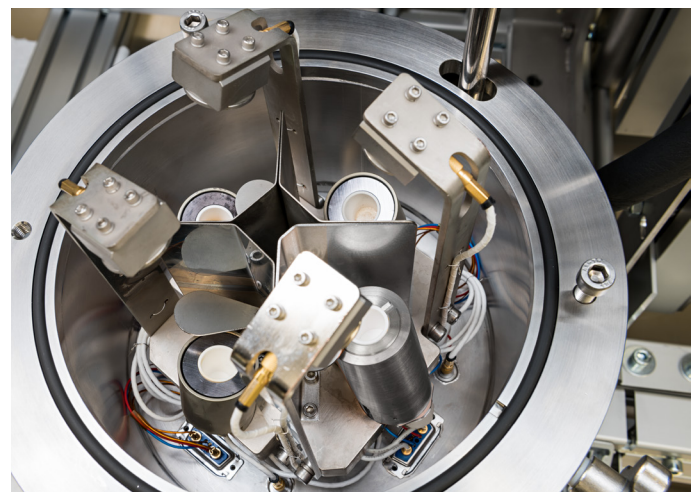
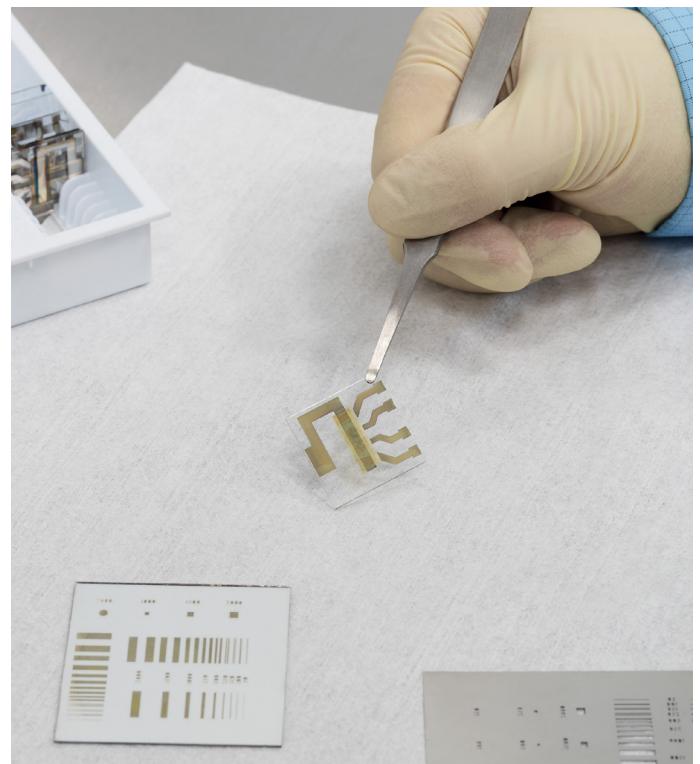
SUBSTRATE

Size up to 50x50 mm

Manual Shutter (option: pneumatic operated)

Manual mask

Option: temperature control -10°C-100°C



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