

MCP

MICROCHANNEL PLATE

Enabling the vision of tomorrow through photon and electron amplification.

Incom's MCP technology utilizes a proprietary fabrication method co-developed with Argonne National Laboratory enabling the largest imaging area available and fully customizable geometries. It combines Incom's capillary arrays (GCA) with thin film coatings applied to the channels by atomic layer deposition (ALD), which functionalizes the MCPs and allows the final operational parameters to be tailored to specific applications. Incom's ALD-GCA-MCP technology offers significant advantages over conventional lead-oxide based MCP technology.

FEATURES

- Sizes up to 20 cm x 20 cm
- Flat and curved substrates available
- High secondary electron yield
- Low background noise
- Stable gain and long lifetime
- Low Gamma-ray sensitivity
- High mechanical and environmental stability

APPLICATIONS

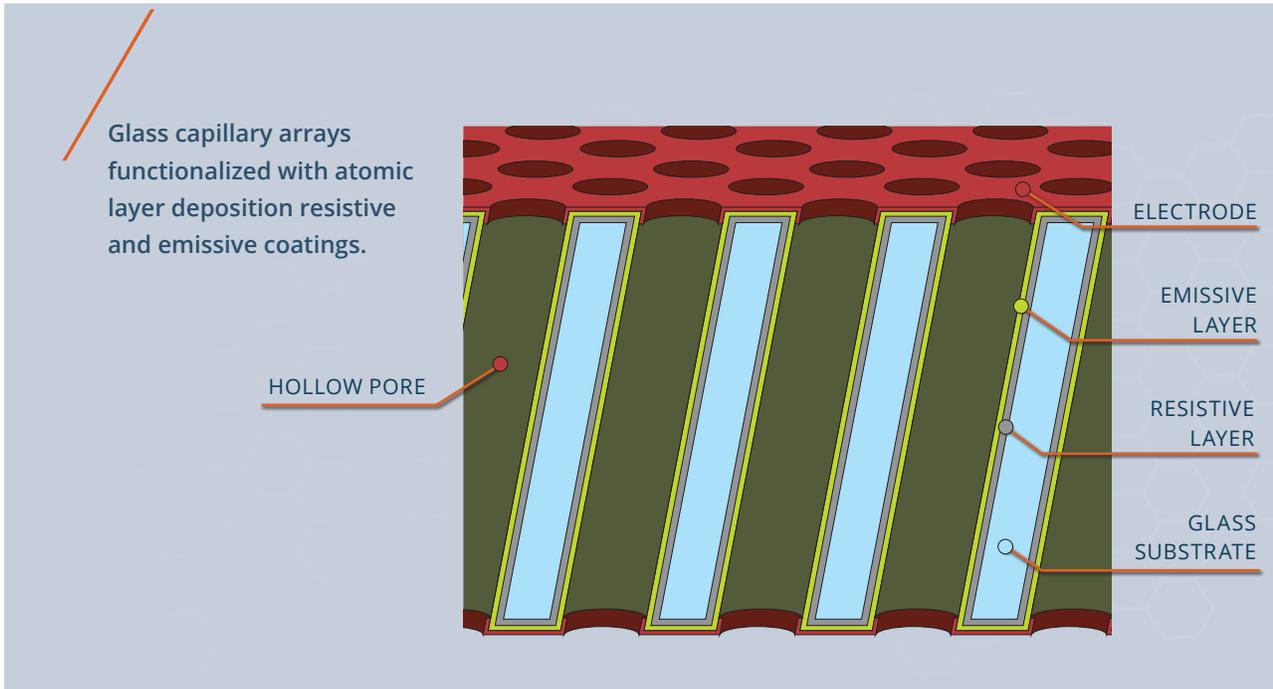
- Photomultipliers for photon and particle detection
- UV spectrometer
- Time of flight (TOF)
- Scanning electron microscopes
- Residual gas analyzers
- Mass spectroscopy

CURVED MCP

USED IN SPACE FLIGHT MASS SPECTROMETRY



A CLOSER LOOK



SPECIFICATIONS

MCP gain at 1000 V	$> 1 \times 10^4$
Open area ratio	$\geq 72\%$
SEE Materials	Al_2O_3 or MgO
Resistance range	Fully customizable
Background	< 0.05 events / sec / cm^2
Gain stability	> 20 C/ cm^2
Gama ray sensitivity	$\sim 3\text{X}$ lower than conventional PbO-MCPs
L/d	60:1 (customizable upon request)
Bias angle	13° (customizable upon request)
Pore size	$10\mu\text{m}$, $20\mu\text{m}$
Part dimensions	Up to 20 cm x 20 cm