

**Powerful
Efficient
Innovative**



High Collection Efficiency MCPs

The new Photonis High Collection Efficiency MCPs allows a drastic increase of the detection efficiency of our detectors.

With the Hi-QE photocathode series, Photonis detectors are already the choice of preference for applications requiring high quantum efficiency and low dark rate.

With the Hi-CE MCPs, Photonis brings its photocathode based detectors to the next level, allowing almost a 100% use of the high QE property into the useful signal. With a Hi-CE MCP, the Detective Quantum Efficiency equals the Quantum Efficiency : $DQE = QE$

The Hi-CE MCPs are available in a variety of custom photon detectors, including MCP-PMTs, Image Intensifier Tubes, Imaging Photon Counter.

Optimizing Collection Efficiency: Hi-CE MCPs

Figure 1

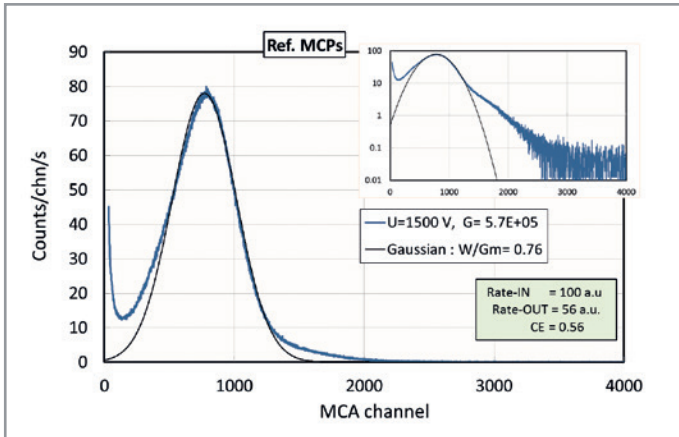


Figure 2

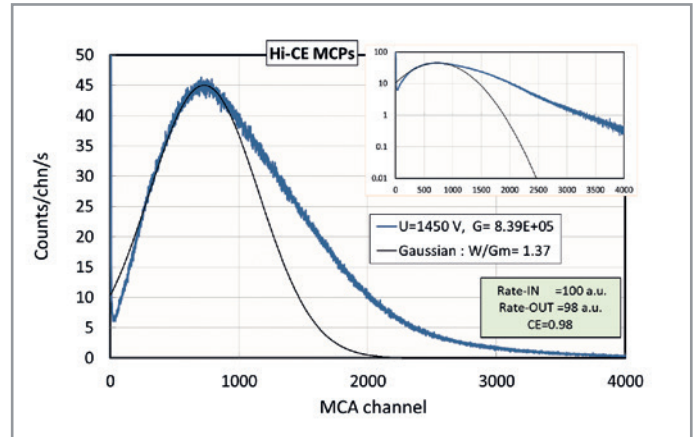


Figure 1 and Figure 2 show typical Pulse Height Distribution (PHD) of Photonis MCP-PMTs made with both reference MCPs (Fig.1) and Hi-CE MCPs (Fig.2). It illustrates a direct characterisation of the Collection Efficiency (CE), given at the bottom right of each figure, as the ratio of the electron pulses collected at the anode to the number of photoelectrons extracted from the photocathode. The Hi-CE MCPs exhibit a CE close to 1 which is an improvement of almost a factor 2 compare to the Ref MCPs.



The Photonis Hi-CE option is available in a wide range of custom-designed photonic detection solutions that would normally use a standard MCP, to improve overall detection efficiency

Image Intensifiers | MCP-PMTs | Imaging Photon Counter

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