Quantum Efficiency of Photocathodes

Hi-QE Photocathode

Based on conventional S-20 processes, a series of high quantum efficiency (QE) photocathodes has been developed that can be specifically tuned for use in the ultraviolet, blue, green or red regions of the spectrum. The QE values exceed 30% at maximum response, and the dark count rate is found to be as low as 50 Hz/cm² at room temperature. This combination of properties along with a fast temporal response makes these photocathodes ideal for application in photon counting detectors and image intensifiers.

Typical performance at 20°C. Cooling the photocathode reduces the dark count rate by about a factor of 2, every 5°C.