

## photon counting

**Also contains definition of:** single-photon counting

Recording of sequential single photons counted by way of recording and counting sequential electron pulses at the anode of the photomultiplier.

Notes:

1. Each electron pulse consists of  $10^5$ – $10^6$  electrons resulting from the multiplication, in the 'dynode' arrangement (or the microchannel plate) of a photomultiplier, of a single photoelectron emitted by a photosensitive layer (the photocathode of the photomultiplier) upon arrival of a single photon.
2. Technique used for two purposes: (i) sensitive measurement of low levels of radiation such as those originating from a luminophore and (ii) recording of emission decays.

**Source:**

PAC, 2007, 79, 293 (*Glossary of terms used in photochemistry, 3rd edition (IUPAC Recommendations 2006)*) on page 393