

gain, G

of a photomultiplier

The gain of a photomultiplier is given by the equation $G = k \sigma^n$, where k is the efficiency of collection of photoelectrons on the first dynode, σ is the secondary emission ratio, i.e. the number of secondary electrons emitted for each electron incident on the dynode and n is the number of dynodes.

Source:

PAC, 1995, 67, 1745 (*Nomenclature, symbols, units and their usage in spectrochemical analysis-XI. Detection of radiation (IUPAC Recommendations 1995)*) on page 1753