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, $\sigma$ 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:**