

## proportional counter

A gas-filled X-ray detector in which the electric potential is high enough for the gain to reach a value in the range from  $10^2$  to  $10^5$ . Each electron produced by the initial photo-ionization causes one avalanche. Since the number of avalanche events is proportional to the energy of the incident photons, the charge collected by the anode is proportional to the X-ray photon energy.

**Source:**

PAC, 1995, 67, 1745 (*Nomenclature, symbols, units and their usage in spectrochemical analysis-XI. Detection of radiation (IUPAC Recommendations 1995)*) on page 1754