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X-ray intensity

Essentially all X-ray measurements are made by photon counting techniques but the results are seldom converted to radiant flux or irradiance or radiant exposure. The term photon flux would be appropriate if the measurements were corrected for detector efficiency but this is seldom done for X-ray chemical analysis. Therefore the term X-ray intensity, I, is commonly used and expressed as photons/unit time detected. Likewise the term relative X-ray intensity, I_r, is used to mean the intensity for the analyte in an unknown specimen divided by the intensity for a known concentration of the analyte element.

Source:
PAC, 1980, *52*, 2541 *(Nomenclature, symbols, units and their usage in spectrochemical analysis - IV X-ray emission spectroscopy)* on page 2544

