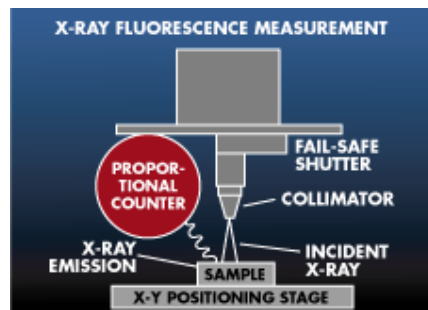


X-RAY 量測原理



When a material is subjected to x-ray bombardment, some of its electrons will gain energy and leave the atom, creating a void in the vacated shell, thereby releasing a photon of x-ray energy known

as x-ray fluorescence.

The energy level or wavelength of fluorescent x-rays is proportional to the atomic number of the atom and is characteristic for a particular material. The quantity of energy released will be dependent upon the thickness of the material being measured.

Basically, the x-ray fluorescence unit consists of an x-ray tube and a proportional counter. Emitted photons ionize the gas in the counter tube proportional to their energy, permitting spectrum analysis for determination of the material and thickness.

X-ray fluorescence is the most precise measurement method, especially for small-diameter parts, or dual coatings such as gold and nickel over copper