

**action spectrum**

A plot of a relative biological or chemical photoresponse ( $= \Delta y$ ) per number of incident photons against wavelength or energy of radiation under the same *radiant power* of light. This form of presentation is frequently used in the studies of biological or solid state systems, where the nature of the absorbing species is unknown. This type of action spectrum is sometimes called *spectral responsivity* or sensitivity spectrum. The precise action spectrum is a plot of the *spectral (photon or quantum) effectiveness*. By contrast, a plot of the biological or chemical change or response per absorbed photon (*quantum efficiency*) versus wavelength is the *efficiency spectrum*.

See also *excitation spectrum*, *efficiency spectrum*.

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