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time constant, τ_c

of a detector

If the output of a detector changes exponentially with time, the time required for it to change from its initial value by the fraction $1 - \exp(-t/\tau_c)$ (for $t = \tau_c$) of the final value, is called the time constant.

Source:
PAC, 1995, *67*, 1745 *(Nomenclature, symbols, units and their usage in spectrochemical analysis-XI. Detection of radiation (IUPAC Recommendations 1995))* on page 1751

