

Title (en)

PHOTOCHROMIC RELAXATION KINETIC METHOD

Title (de)

PHOTOCHROMES RELAXATIONS KINETISCHES VERFAHREN

Title (fr)

PROCEDE A CINETIQUE DE RELAXATION PHOTOCHROMIQUE

Publication

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Application

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Abstract (en)

[origin: WO2005017527A1] The invention relates to a method for determining a characteristic kinetic variable of a chemical reaction between a plurality of chemical species in a sample, at least one species comprising at least one fluorophore. According to said method, an imbalance state of the chemical reaction is generated by exposing the sample to light and by temporally resolved observation of at least one section of the relaxation of the concentrations of the species involved, by means of a fluorescence signal of at least one fluorophore. According to the invention, at least one product of the chemical reaction to be examined comprises a compound of two species, that respectively contain a partner of a FRET pair consisting of a FRET donor and a FRET acceptor. The invention is characterised by further steps: the FRET acceptor is a photochrome having an absorption spectrum that can be modified by means of exposition to light of a suitable wavelength; the FRET donor is a fluorophore having an emission spectrum which overlaps with the absorption spectrum of the FRET acceptor, the size of said region depending on the photochromic state of the FRET acceptor; and the light used for generating the imbalance state of the chemical reaction has a wavelength which changes the photochromic state of the FRET acceptor.

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