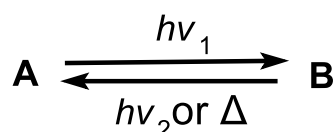


photochromism

Reversible transformation of a molecular entity between two forms, A and B, having different absorption spectra, induced in one or both directions by absorption of electromagnetic radiation. The spectral change produced is typically, but not necessarily, of visible colour and is accompanied by differences in other physical properties.

The thermodynamically stable form A is transformed by irradiation into form B. The back reaction can occur thermally (photochromism of type T) or photochemically (photochromism of type P).



The terms 'switch-on' and 'switch-off' are sometimes used to denote the two directions of the photochromic reaction.

Note:

An important parameter is the 'number of cycles' that a photochromic system can undergo under well-defined conditions (solution, matrix, concentration, temperature).

Source:

PAC, 2007, 79, 293 (*Glossary of terms used in photochemistry, 3rd edition (IUPAC Recommendations 2006)*) on page 387