

quenching

1. Arresting the course of a chemical reaction by chemical or physical means.

1993, 65, 2297

2. (in photochemistry) The deactivation of an excited molecular entity intermolecularly by an external environmental influence (such as a quencher) or intramolecularly by a substituent through a non-radiative process. When the external environmental influence (quencher) interferes with the behaviour of the excited state after its formation, the process is referred to as dynamic quenching. Common mechanisms include energy transfer, charge transfer, etc. When the environmental influence inhibits the excited state formation the process is referred to as static quenching.

See *Stern–Volmer kinetic relationships*.

1996, 68, 2268; O.B. 120; 1994, 66, 2523

3. (in radiation chemistry) The process of inhibiting continuous or multiple discharges following a single ionizing event in certain types of radiation detectors, particularly in Geiger–Müller counter tubes.

1994, 66, 2523