

Luminimetry

In chemiluminescence, electrons are excited by a chemical reaction. It must be a significantly exoergic event, almost exclusively oxidation. However, the released energy must not be released as heat. Some substances can emit part of the energy in the form of a photon directly, which is manifested by a short flash of light. In other cases, it is necessary to add another substance to the system, to which the energy is transferred and which then (usually for a number of seconds to minutes) **emits light. It can be synthetic luminophores or the natural enzyme luciferase of fireflies - then we talk about bioluminescence. Finally, it is possible to use the oxidation of a suitable substance electrically at the anode, which is referred to as electrochemiluminescence**".

Luminometric methods tend to be quite sensitive. Luminimeters are similar in principle to the emission part of a fluorimeter. They often use filters as a monochromator and a photomultiplier is usually connected as a detector.