Means for detecting luminescent and/or light-scattering particles in flowing liquids

Abstract

The invention relates to a probe for detecting luminescent and/or light-scattering particles in flowing liquids, having a measurement cell containing a pipeline channel through which the liquid to be measured flows, at least one transparent window in a wall of the pipeline, at least one light source for producing a dimensioned excitation light beam, which excites, through the window, the luminescent and/or the light-scattering particles in the pipeline channel in an optically limited light volume, at least one detector, which records, through the window or through a further window, light emitted by the luminescent and/or the light-scattering particles, wherein the measurement cell is configured such that the dimensioned excitation light beam and the emitted light are orientated such that they are perpendicular to each other and each particle moves rectilinearly within the measurement volume parallel to the liquid stream at a fixed angle to the excitation light. The invention also relates to a method for detecting luminescent and/or light-scattering particles in flowing liquids and to the use of the probe according to the invention and of the method for online monitoring of a production plant, in particular of a plastics production plant or a wastewater treatment plant.