

Title (en)
SYSTEM AND METHOD FOR PHOTON DETECTION

Title (de)
SYSTEM UND VERFAHREN ZUR PHOTONENERKENNUNG

Title (fr)
SYSTÈME ET PROCÉDÉ POUR LA DÉTECTION DE PHOTONS

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Abstract (en)
[origin: WO2008121072A1] The present invention provides a detection system for measuring photon fluxes within a large dynamic intensity range. The detection system comprises at least one photo detector element (3) arranged to detect incident radiation and comprising at least one avalanche photo diode [APD]. The detection system comprises measuring means (5, 7, 9, 11, 15) for measuring the rate and magnitude of the discrete electric pulses, and the mean current, generated by the detector element (3) as a result of the incident radiation. The detection system is characterized in that it comprises a bias regulator (13) comprising means for altering a bias voltage (V B) applied to the detector element (3) between at least a first and a second voltage level, said first voltage level being below the breakdown voltage of the detector element (3), and said second voltage level being above the breakdown voltage of the detector element (3).

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