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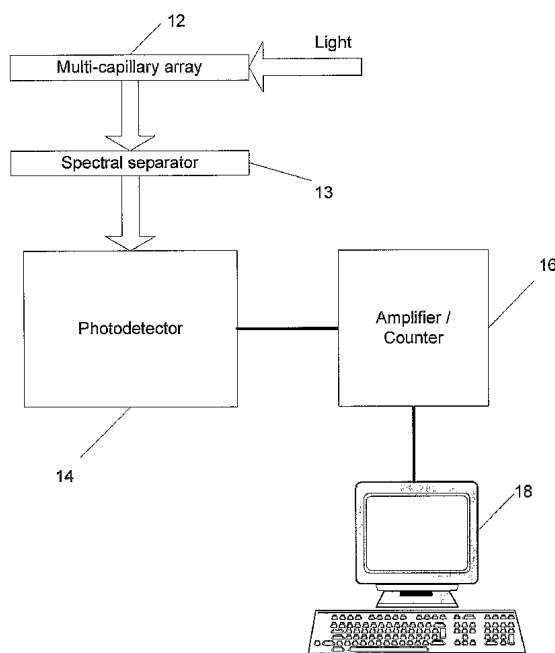
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(54) Title: SYSTEM AND METHOD FOR CROSS-TALK CANCELLATION IN A MULTILANE FLUORESCENCE DETECTOR



(57) Abstract: The present invention is directed to a system and method for cross-talk cancellation for multi-lane fluorescence detectors. The invention may be implemented in accordance with a variety of systems, including systems for multicapillary electrophoresis. The present invention is based on a special calibration procedure for determination of a channel cross-talk matrix and enables an accurate separation of the fluorescence emitted from individual capillary lanes. The proposed method for cross-talk calibration and removal is very useful for design and development of multi-lane single photon counting detection systems.

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A. CLASSIFICATION OF SUBJECT MATTER IPC(8) : G01J 1/58; G01D 18/00; G12B 13/00 US CL : 250/252.1, 458.1, 459.1; 702/104; According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) U.S. : 250/252.1, 458.1, 459.1; 702/104; 204/601, 603 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Please See Continuation Sheet		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GAVRILOV et al. Dynamic Range of Fluorescence Detection and Base-calling Accuracy in DNA Sequencer Based on Single-Photon Counting. April 2003, Vol 24. No. 7-8, pages 1184-1192, especially pages 1190-1191.	1-8, 12-25, 29 ----- 9-11, 26-28, 30-33
A	YIN et al. Automatic Matrix Determination in Four Dye Fluorescence-Based DNA Sequencing. Electrophoresis. 1996, Vol 17. No. 6, pages 1143-1150, especially pages 1143-1144.	1-33
A, D	ALAVERDIAN et al. A Family of Novel DNA Sequencing Instruments Based on Single-Photon Detection. Electrophoresis. August 2002, Vol. 23. No. 16, pages 2804-2817.	18-33
A	US 6,418,383 B1 (WANG) 9 July 2002 (09.07.2002), column 1, lines 56-64, column 6, lines 15-48.	1-33
A	US 6,539,323 B2 (OLSON) 25 March 2003 (25.03.2003), column 4, lines 36-41, claim 1.	1-17
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"O"	document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
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EAST 2.0.1, INSPEC
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