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(54) Title: SYSTEMS AND METHODS FOR ANALYZING MICROBIOLOGICAL SUBSTANCES

(57) Abstract: Disclosed are systems and methods for monitoring a fluid for the purpose of identifying microbiological content and/or microorganisms and determining the effectiveness of a microbiological treatment. One method of monitoring a fluid includes containing the fluid within a flow path, the fluid including at least one microorganism present therein, optically interacting electromagnetic radiation from the fluid with at least one integrated computational element, thereby generating optically interacted light, receiving with at least one detector the optically interacted light, and generating with the at least one detector an output signal corresponding to a characteristic of the fluid, the characteristic of the fluid being a concentration of the at least one microorganism within the fluid.



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