

[54] **FLUORESCENT ASSAYS, INCLUDING IMMUNOASSAYS, WITH FEATURE OF FLOWING SAMPLE**

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[58] Field of Search **436/172, 501, 527, 546, 436/514; 250/302, 461.1; 422/57; 356/73.1, 445**

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[57] **ABSTRACT**

An assay method and apparatus employing total internal reflection of excitation radiation at an activated region on the surface of an optically conductive rod or fiber surrounded by a liquid phase of lower index of refraction, so as to excite into fluorescence fluorophores in the liquid present in a thin layer around the rod surface. The induced fluorescence is then gathered and measured. Excitation occurs while flowing a sample of the liquid phase through an enclosure of fixed dimensions bounded in part by the activated region.

11 Claims, 3 Drawing Figures

