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**Richter et al.**

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(54) **MICROFLUIDIC DEVICE, MICROFLUIDIC DOSING SYSTEM AND METHOD FOR MICROFLUIDIC FLOW MEASUREMENT AND DOSING**

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(58) **Field of Classification Search**  
None  
See application file for complete search history.

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(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 359 days.

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(57) **ABSTRACT**

A microfluidic device for detecting a flow parameter, includes a channel configured within a base body, the channel including a first inlet for feeding a first fluid and a second inlet for feeding a second fluid so as to form a fluid stream having the first and second fluids within the channel, and further including an output for providing the fluid stream on the output side, a first feeder including a micropump associated with the first inlet for selectively feeding the first fluid to the channel, a second feeder associated with the second inlet for feeding the second fluid to the channel; and a detector for detecting, on the basis of a different physical property of the first fluid and the second fluid within the channel, a measurement value dependent on a current flow parameter of the first or second fluid.

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**18 Claims, 11 Drawing Sheets**

