
A PDMS based microsystem to rapid evaluation of the BOD parameter of wastewater

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Abstract

The wastewater quality is evaluated by the parameter BOD (Biological Oxygen Demand), representing the oxygen consumed by bacteria to degrade organic molecules during a period of 5 days [1].

To evaluate the concentration of these pollutants, we used *Escherichia coli* as an indirect sensor: they are confined in a PDMS-glass microsystem.

Our research consists to reduce the measurement time and to obtain a better representativeness of the pollutants by evaluating the oxygen consumption of bacteria

Keywords: wastewater, BOD, bacteria, microsystem

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