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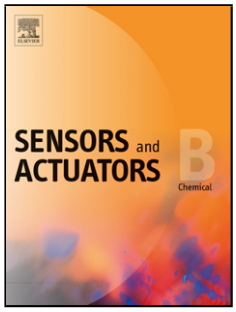

Title: Integrated microfluidic viscometer for edible oil analysis

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ACCEPTED MANUSCRIPT

Integrated microfluidic viscometer for edible oil analysis

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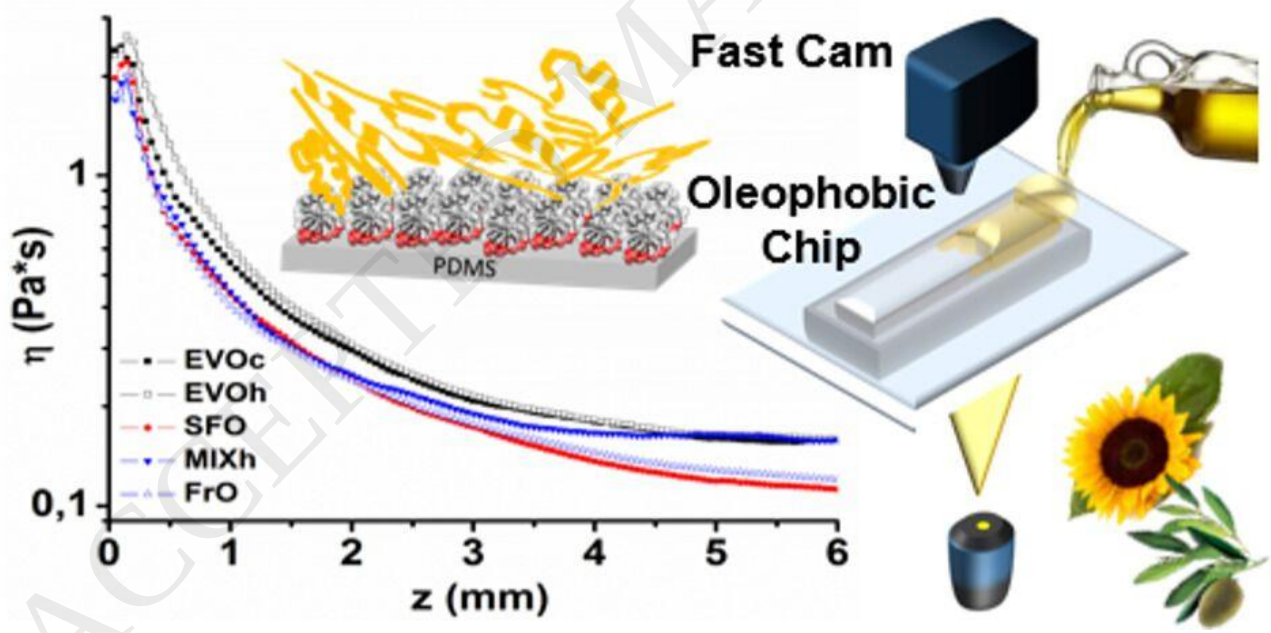
Graphical abstract

An integrated microfluidic viscometer based on capillary dynamics into oleophobic chips for edible oils analysis.



Highlights

- An integrated microfluidic viscometer based on capillary dynamics is reported
- The chip consists of a plastic microchannel with a protein-grafted oleophobic layer
- Its capability to discriminate pure or mixed oils of different origin is demonstrated
- The extrapolated dynamic viscosity is in direct correlation with standard rheometers

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