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Bernadette K. McCabe

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Stephan Tait, Peter Harris, Craig Ballie

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7. Please enter your final thesis title below. *

MICROBIAL ELECTROCHEMICAL SENSOR SYSTEMS FOR RAPID MEASUREMENT OF VOLATILE FATTY ACID INTERMEDIATES

8. You are required to provide an Australian Higher Education Graduation Statement (AHEGS). Your AHEGS must take the form of a 100-word abstract that summarises your thesis. It cannot be longer than 100 words. *

Anaerobic digestion is a key process employed to produce biogas. Monitoring of the anaerobic process is becoming more crucial with the adoption of novel technologies. Poor process transparency accompanied with process instability are drivers to developing alternative monitoring techniques. A key indicator, volatile fatty acids can increase when the anaerobic process is stressed. Traditional monitoring methods require manual sampling and can lead to delays in obtaining measurements. Microbial electrochemical sensors show potential as an alternative and were investigated for rapid, accurate and cost-effective measurement of volatile fatty acids. The outcomes of this thesis provides further understanding of this technology.

9. Please provide up to six keywords related to your study. *

Separate keywords with a comma

Cost-effective, Anareobic, Biofilm, Electrochemical, Stability, Electrolyte

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Declaration

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