



CV for Irini Angelidaki (*1959)

Positions and degrees

1989 - 92	Ph.D student, Department of Biotechnology, DTU
1992 - 98	Assistant Professor, Dpt. of Environmental Science & Engineering, DTU
1998 - 01	Associate Professor, Department of Biotechnology, DTU
2001 - 06	Associate Professor, Environment & Resources DTU
2006 -	Professor, Institute of Environment & Resources DTU

Research area

Anaerobic microbiology and anaerobic processes; optimization of the anaerobic process; mathematical models for simulation of the anaerobic process; monitoring and control of the biogas process; development of physical, chemical, enzymatic and microbiological methods for degradation of lignocellulosic material; isolation and characterization of anaerobic bacteria; molecular and immunological methods for characterization of bacteria; biological production of hydrogen; microbial fuel cells; biorefineries

ISI Journal publications

142 ISI publications, book chapters= 12; patents=4; H-index=33 (Web of Science)

Distinctions and awards

2011: Familie Brincks legat

Projects, selected

- 2010- Biogas production at high ammonia loading conditions – Energinet financed project.
- 2012- EcoIndia. Energy-efficient, Community-based water- and wastewater-treatment systems for deployment in India. EU financed project (FP7).

Leadership experiences and boards/committees, selected

- 2004- Member of the Management Committee in Anaerobic Digestion Specialist Group (IWA).
- 2005- Chairman of the international task group for “Harmonization of anaerobic biodegradability, activity and inhibition bioassays”, (IWA).
- 2011-2011 Member of the Infrastructure panel, the Danish Research and Innovation Council.
- 2009- Member of the board for “Top Research Initiative- program” for the “Bioenergy” subprogram, under the Nordic Ministerial Council.
- 2008- Chairman for the panel “Products and Processes” (Env., Agri. Sciences & Spatial Planning). For the Swedish Danish Research Council.
- 2011- Member of the committee at the Free Research Council (Research, technology and production, FTP).
- 2011- Member of the committee for the “Applied science and biotechnology” program for the European Council Research (ERC) for free research, - for consolidators and starters.

Supervision of Ph.D. Students

Currently main supervisor for 6 PhD students

ISI Publications for 2012, published and in press

Abreu, A.A., Karakashev, D., Angelidaki, I., Sousa, D.Z., Alves, M.M. (2012) Biohydrogen production from arabinose and glucose using extreme thermophilic anaerobic mixed cultures. *Biotechnology Biofuels*, 5, 5-11.

Alatraktchi, F.A., Zhang, Y., Noori, J.S., Angelidaki, I. (2012) Expanding surface area of electrodes by nanotechnology to enhance electricity generation in microbial fuel cells. *Bioresource Technology*, 123, 177-183.

Baserba, M.G., Angelidaki, I., Karakashev, D. (2012) Effect of continuous oleate addition on microbial communities involved in anaerobic digestion process. *Bioresource Technology*, 106, 74-81.

Boe, K., Kougias, P. G., Pacheco, F., O-Thong, S., Angelidaki, I. (2012) Effect of substrates and intermediate compounds on foaming in manure digestion systems. *Water Science and Technology*, 66 (10), 2146-2154.

Boe, K., Angelidaki, I. (2012) Pilot-scale application of an online VFA sensor for monitoring and control of a manure digester. *Water Science and Technology* (in press).

Fotidis, I.A., Karakashev, D., Kotsopoulos, T.A., Martzopoulos G.G., Angelidaki I. (2012) Effect of ammonium and acetate on methanogenic pathway and methanogenic community composition. *FEMS Microbiology Ecology*, DOI: 10.1111/j.1574-6941.2012.01456.

Luo G., Johansson S., Boe K., Xie L., Zhou Q., Angelidaki I. (2012) Simultaneous hydrogen utilization and in situ biogas upgrading in an anaerobic reactor. *Biotechnology and Bioengineering*, 109, 1088-1094.

Luo G., Angelidaki I. (2012) Integrated biogas upgrading and hydrogen utilization in an anaerobic reactor containing enriched hydrogenotrophic methanogenic culture. *Biotechnology and Bioengineering*, 109, 2729-2736.

Karagoz, P., Rocha, I.V., Ozkan, M., Angelidaki, I. (2012) Alkaline peroxide pretreatment of rapeseed straw for enhancing bioethanol production by same vessel saccharification and co-fermentation. *Bioresource Technology*, 104: 349-357.

Markou, G., Angelidaki, I., Georgakakis, D. (2012) Microalgal carbohydrates: an overview of the factors influencing carbohydrates production, and of main bioconversion technologies for production of biofuels. *Applied Microbiology Biotechnology*, 95(2) DOI 10.1007/s00253-012-4398-0.

O-Thong, S., Boe, K. and Angelidaki, I. (2012) Thermophilic anaerobic co-digestion of oil palm empty fruit bunches with palm oil mill effluent for efficient biogas production. *Applied Energy*, 93, 648-654.

Zhang, Y., Angelidaki, I. (2012) A simple and rapid method for monitoring dissolved oxygen in water with a submersible microbial fuel cell (SBMFC). *Biosensors and Bioelectronics*, 38(1), 189-194.

Zhang, Y., Angelidaki, I. (2012) Innovative self-powered submersible microbial electrolysis cell (SMEC) for biohydrogen production from anaerobic reactors. *Water Research*, 46(8), 2727-2736.

Zhang, Y., Angelidaki, I. (2012) Self-stacked submersible microbial fuel cell (SSMFC) for improved remote power generation from lake sediments. *Biosensors and Bioelectronics* 35(1), 265-270.

Zhang, Y., Angelidaki, I. (2012) Bioelectrode-based approach for enhancing nitrate and nitrite removal and electricity generation

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from eutrophic lakes. *Water Research*, DOI:
10.1016/j.watres.2012.09.022