

CV for Peter Kjeldsen (*1957)



Orcid: <http://orcid.org/0000-0003-2738-9960>

Degrees:

- 1986 Ph.D., Environmental Engineering, Department of Environmental Engineering, Technical University of Denmark (DTU)
- 1982 M. Sc. in Environmental Engineering, DTU

Positions:

- 2008- Employed as Professor at Department of Environmental Engineering, DTU
- 1999-2000 Sabbatical at Department of Civil Engineering, North Carolina State University for collaboration within the field of landfills and groundwater remediation
- 1994-2008 Associate Professor, Department of Environmental Science and Engineering (IMT)/DTU Environment, DTU

Research area

Professor Peter Kjeldsen's research field is mainly characterization of waste, environmental effects of waste treatment and disposal facilities, and mitigation of landfill gas emissions. He has worked intensively on methane oxidation as a landfill gas mitigation process and has forwarded the process through several laboratory projects into a full-scale mitigation technology. Collaborative activities have been significant with more than 25 institutions including a range of universities around the world as well as industrial and consulting companies, public authorities and organizations.

Distinctions and awards:

- 2010: "Best Paper Award" - Global Waste Management Symposium
- 2007: "Samuel Arnold Greeley Award" for best paper in Journal of Environmental Engineering
- 2007: Nobel Peace Prize as part of the IPCC author group for the Fourth Assessment Report
- 2006: Danish award "Rendan prisen 2006" of 10.000DKK from DAKOFA
- 2002: "The Environmental Prize 2002" of 250.000DKK from the Aase og Ejnar Danielsens Fond

Web of Science publications: 100; **Citations:** 4350; **h-index:** 30.

Memberships of scientific committees, review:

- 2013- Member of the Managing Board of International Waste Working Group
- 2010- Member of the Executive Programme Committee of Sardinia Symposiums, International Waste Management and Landfill Symposium
- 2006-2011 Associate Editor for the journal "Waste Management"

Supervision of PhDs, 2012 – present (ongoing og finished in 2012 or later):

- Zhenhan Duan: Quantification of Trace Gas Emissions from Waste Management Facilities (ongoing)
- Lotte Fjelsted (ongoing): Development of innovative landfill gas management technologies
- Ehsan Aghdam: Optimization of greenhouse gas mitigation at landfills (2018)
- Zishen Mou: Gas generation and emission at waste disposal sites receiving low organic waste (2014)
- Sanne Skov Nielsen: Stabilization of arsenic and chromium polluted soils using water treatment residues (2013)
- Jacob Mønster: Whole gaseous emission measurements from waste treatment facilities (2014 – co-supervisor)

Selected publication (published, in press and submitted):

- Fjelsted, L., Christensen, A.G., Larsen, J.E., Kjeldsen, P., & Scheutz, C. (2019). Closing the methane mass balance for an old Danish landfill. *Waste Management*, submitted.
- Fjelsted, L., Scheutz, C., Christensen, A.G., Larsen, J.E. & Kjeldsen, P. (2019). Biofiltration of diluted landfill gas in an active loaded open-bed compost filter. *Waste Management*, submitted.
- Mønster, J., Kjeldsen, P. & Scheutz, C. (2019). Methodologies for measuring fugitive methane emissions from landfills – A review. *Waste Management*, 87, 835-859.
- Scheutz, C. & Kjeldsen, P. (2019). Guidelines for landfill gas emission monitoring using the tracer gas dispersion method. *Waste Management*, 85, 351-360.
- Aghdam, E.F., Scheutz, C., Kjeldsen, P. (2019). Impact of meteorological parameters on extracted landfill gas composition and flow. *Waste Management*, 87, 905-914.
- Fjelsted, L., Christensen, A.G., Larsen, J.E., Kjeldsen, P. & Scheutz, C. (2019). Assessment of a landfill methane emission screening method using an unmanned aerial vehicle mounted thermal infrared camera – A field study. *Waste Management*, 87, 893-904.
- Fredenslund, A.M., Mønster, J., Kjeldsen, P. & Scheutz, C. (2019). Development and implementation of a screening method to categorise the greenhouse gas mitigation potential of 91 landfills. *Waste Management*, 87, 915-923.
- Thomasen, T.B., Scheutz, S. & Kjeldsen, P. (2019). Treatment of landfill gas with low methane content by biocover systems. *Waste Management*, 84, 29–37.
- Kjeldsen, P. & Scheutz, C. (2019). Landfill gas management by methane oxidation. Chapter 9.5 in: Cossu, R. & Stegmann, R. (eds.). *Solid Waste Landfilling*, Elsevier.
- Aghdam, E.F., Fredenslund, A.M., Chanton, J., Kjeldsen, P. & Scheutz, C. (2018). Determination of gas recovery efficiency at two Danish landfills by performing downwind methane measurements and stable carbon isotopic analysis. *Waste Management*, 73, 220-229.
- Cassini, F., Scheutz, C., Skov, B.H., Zishen, M., Kjeldsen, P. (2017). Mitigation of methane emissions in a pilot-scale biocover system at the AV Miljø Landfill, Denmark: 1. System design and gas distribution. *Waste Management*, 63, 213–225.
- Scheutz, C., Cassini, F., De Schoenmaeker, J., Kjeldsen, P. (2017). Mitigation of methane emissions in a pilot-scale biocover system at the AV Miljø Landfill, Denmark: 2. Methane oxidation. *Waste Management*, 63, 203–212.
- Nielsen, S.S., Kjeldsen, P. & Jakobsen, R. (2016). Full scale amendment of a contaminated wood impregnation site with iron water treatment residues. *Frontiers of Environmental Science & Engineering*, 10(4), 1-10.
<https://doi.org/10.1007/s11783-016-0842-1>
- Kjeldsen, P., & Scheutz, C. (2016). Etablering og monitorering af biocoversystemer på affaldsdeponeringsanlæg – Vidensopsamling. Miljøprojekt nr. 1817. København K: Miljøstyrelsen.
- Nielsen, A. A. F., Binning, P. J., & Kjeldsen, P. (2015). Applicability of heat and gas transport models in biocover design based on a case study from Denmark. In *Proceedings Sardinia 2015, Fifteenth International Waste Management and Landfill Symposium* Cagliari, Italy: CISA Publisher.
- Pantini, S., Verginelli, I., Lombardi, F., Scheutz, C., Kjeldsen, P. (2015). Assessment of biogas production from MBT waste under different operating conditions. *Waste Management*, 43, 37–49.
- Mønster, J., Samuelsson, J., Kjeldsen, P. & Scheutz, C. (2015). Quantification of methane emission from 15 Danish landfills using mobile tracer dispersion method. *Waste Management*, 35, 177–186.
- Mou, Z., Scheutz, C. & Kjeldsen, P. (2014). Evaluating the biochemical methane potential (BMP) of low-organic waste at Danish landfills. *Waste Management*, 34, 2251–2259.
- Scheutz, C., Pedersen, R.B., Petersen, P.H., Jørgensen, J.H.B., Ucendo, I.M.B., Mønster, J.G., Samuelsson, J. & Kjeldsen, P. (2014). Mitigation of methane emission from an old unlined landfill in Klintholm, Denmark using a passive biocover system, *Waste Management*, 34, 1179–1190.
- Mønster, J, Samuelsson J., Kjeldsen, P., Scheutz, C. (2014): Quantifying methane emission from fugitive sources by combining tracer release and downwind measurements – test, verification and documentation of the method. *Waste Management* 34, 1416–1428.