

CV for Peter Kjeldsen (*1957)

Orcid: 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:

- 1999-2000 Sabbatical at Department of Civil Engineering, North Carolina State University for collaboration within the field of landfills and groundwater remediation
1994-2022 Associate Professor, Department of Environmental Science and Engineering (IMT)/DTU Environment, DTU
2022- Associate Professor, DTU Sustain/Department of Environmental and Resource Engineering, DTU

Educational leadership:

- 2004-2007 Head of MSc Studies, MSc in Environmental Engineering
2007-2012 Head of Education, Chairman of Study Board, DTU Environment
2015-2017 Member of ISN Study Board, DTU Environment
2016-2018 Head of BSc Studies, BSc in Environmental Engineering
2017-2022 Head of Education, Chairman of Study Board, DTU Environment
2022- Head of Education, Chairman of Study Board, DTU Sustain

Research Area:

Associate 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. His research has also focused on soil and groundwater contamination from contaminated sites with focus on organic contaminants and metals, especially chromium and arsenic. 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

Memberships of scientific committees, review:

- 2013-2021 Member of the Managing Board of International Waste Working Group
2010-2021 Member of the Executive Programme Committee of Sardinia Symposiums, International Waste Management and Landfill Symposium
2006-2011 Associate Editor for the journal "Waste Management"

Web of Science publications: 117; Citations: 6466; h-index: 38;

Other publications: 265; Patents: 0

Supervision of PhDs, 2017 – present (ongoing or finished in 2017 or later):

Main supervisor for 3 PhD and co-supervisor for 1 PhD in this period

Selected grants, 2017 – present (ongoing or finished in 2017 or later):

AV Miljø, "Landfill Aeration Demonstration", Amount granted to Dept.: 850 MDKK, Project period: 2020-2023

GUDP, "Biofilters for reduction of methane from manure storage tanks and cow stables", Amount granted to Dept.: 3.4 mill DKK, Project period: 2020-2023.

Other significant contributions:

2019 Keynote speaker at the 2019 Australian Landfill & Transfer Stations Conference, Brisbane, Australia

Selected publications (2017 or later):

Kissas, K., Ibrom, A., **Kjeldsen, P.**, & Scheutz, C. (2022). Annual upscaling of methane emission field measurements from two Danish landfills, using empirical emission models. *Waste Management*, 150, 191-201. Doi: 10.1016/j.wasman.2022.07.005.

Duan, Z., **Kjeldsen, P.**, & Scheutz, C. (2022). Efficiency of gas collection systems at Danish landfills and implications for regulations. *Waste Management*, 139, 269-278. Doi: 10.1016/j.wasman.2021.12.023.

Kissas, K., Ibrom, A., **Kjeldsen, P.**, & Scheutz, C. (2022). Methane emission dynamics from a Danish landfill: The effect of changes in barometric pressure. *Waste Management*, 138, 234-242. Doi: 10.1016/j.wasman.2021.11.043.

Duan, Z., Scheutz, C., & **Kjeldsen, P.** (2022). Mitigation of methane emissions from three Danish landfills using different biocover systems. *Waste Management*, 149, 156-167. doi: 10.1016/j.wasman.2022.05.022.

Scheutz, C., Olesen, A. O. U., Fredenslund, A. M., & **Kjeldsen, P.** (2022). Revisiting the passive biocover system at Klintholm landfill, six years after construction. *Waste Management*, 145, 92-101. doi: 10.1016/j.wasman.2022.04.034.

Duan Z., Hansen, P.O.R., Scheutz C. & **Kjeldsen P.** (2021). Mitigation of methane and trace gas emissions through a large-scale active biofilter system at Glatved landfill, Denmark. *Waste Management*, 126, 367-376. Doi: 10.1016/j.wasman.2021.03.023.

Duan Z., Scheutz, C. & **Kjeldsen, P.** (2021). Trace gas emissions from municipal solid waste landfills: A Review. *Waste Management*, 119, 39-62. Doi: 10.1016/j.wasman.2020.09.015.

Duan, Z., **Kjeldsen, P.** & Scheutz, C. (2021). Trace gas composition in landfill gas at Danish landfills receiving low-organic waste. *Waste Management*, 122, 113-123. Doi: 10.1016/j.wasman.2021.01.001.

Ahmadi, N., Mosthaf, K., Scheutz, C., **Kjeldsen, P.** & Rolle, M. (2020). Model-based interpretation of methane oxidation and respiration processes in landfill biocovers: 3-D simulations of laboratory and pilot experiments. *Waste Management*, 108, 160-171. Doi: 10.1016/j.wasman.2020.04.025.

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*, 103, 1–11. Doi: 10.1016/j.wasman.2019.12.005.

Mønster, J., **Kjeldsen, P.** & Scheutz, C. (2019). Methodologies for measuring fugitive methane emissions from landfills – A review. *Waste Management*, 87, 835-859. Doi: 10.1016/j.wasman.2018.12.047.

Scheutz, C. & **Kjeldsen, P.** (2019). Guidelines for landfill gas emission monitoring using the tracer gas dispersion method. *Waste Management*, 85, 351-360. Doi: 10.1016/j.wasman.2018.12.048.

Aghdam, E.F., Scheutz, C., **Kjeldsen, P.** (2019). Impact of meteorological parameters on extracted landfill gas composition and flow. *Waste Management*, 87, 905-914. Doi: 10.1016/j.wasman.2018.01.045.

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. Doi: 10.1016/j.wasman.2018.05.031.

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. Doi: 10.1016/j.wasman.2018.03.005.

Thomasen, T.B., Scheutz, S. & **Kjeldsen, P.** (2019). Treatment of landfill gas with low methane content by biocover systems. *Waste Management*, 84, 29–37. Doi: 10.1016/j.wasman.2018.11.011.

Kjeldsen, P. & Scheutz, C. (2019). Landfill gas management by methane oxidation. Chapter 9.5 in: Cossu, R. & Stegmann, R. (eds.). *Solid Waste Landfilling*, Elsevier.