

# CV for Jens Abildskov

## ORCID

0000-0003-1187-8778

## Name and year of birth

Jens Abildskov, 1970

## Degrees: *(list year and degrees)*

1995, M.Sc., Chemical Engineering, Department of Chemical Engineering, DTU

1999, Ph.D., Department of Chemical Engineering, DTU

## Positions: *(list main periods and positions)*

1999-2002 Assistant Professor, KT-DTU

2002-present Associate Professor, KT-DTU

## Research Area: *(short description 3-5 lines)*

Chemical downstream separation process modeling / design / analysis, energy systems and applied thermodynamics.

## Distinctions and awards: *(list name of award and year)*

Received a series of awards for conference presentations, e.g. 10th IFAC (2013) and ESCAPE28/WCCE (October 2017, Barcelona). Championship Team Leader in the 3rd International Industrial Fluid Properties Simulation Challenge (IFPSC) in the category 'State Conditions Transferability', awarded at the AIChE Annual Meeting, San Francisco (2006).

## Memberships of scientific committees, review

National member/delegate of two working parties on 'Education' and 'Fluid Separations' under the European Federation of Chemical Engineers. Serve as scientific committee member of ESCAPE-27 (Barcelona), ESCAPE-28 (Graz), Distillation & Absorption Conference 2018 (Florence) and ECCE12/ECAB5 (Florence). Reviewer for *De Nederlandse Organisatie voor Wetenschappelijk Onderzoek* (NWO) (Eng.: Netherlands Organisation for Scientific Research). Peer reviewer for several international journals. Evaluator for a number of ph.d. theses at universities in Germany and Finland.

## Web of Science publications 92

**Year of first WoS publication:** 1996; **Year of first WoS publication at DTU:** 1996

**Citations(no):** 965 **Citation impact:** 10,5 (average citation per item) **H.index:** 17

## Books:

### 7 Book chapters (2 examples shown):

Abildskov J., Wedberg R., O'Connell J.P., 2013. "Fluctuation Solution Theory Properties from Molecular Simulation" in "Fluctuation Theory of Solutions: Applications in Chemistry, Chemical Engineering and Biophysics", Ch. 6. Edited by Matteoli E., O'Connell J.P., Smith P.E., CRC Press, Taylor & Francis Group. ISBN: 978-1-43-989922-9 (Hardback).

O'Connell J.P., Abildskov J., 2013. "Molecular Thermodynamic Modeling of Fluctuation Solution Theory Properties" in "Fluctuation Theory of Solutions: Applications in Chemistry, Chemical Engineering and Biophysics", Ch. 9. Edited by Matteoli E., O'Connell J.P., Smith P.E., CRC Press, Taylor & Francis Group. ISBN: 978-1-43-989922-9 (Hardback).

### 3 Monographs

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Vol.15-I, DECHEMA Chem. Data Ser., DECHEMA, Frankfurt am Main. ISBN: 3-89746-051-3.

Vol.15-II, DECHEMA Chem. Data Ser., DECHEMA, Frankfurt am Main. ISBN: 3-89746-074-2.

Vol.15-III, DECHEMA Chem. Data Ser., DECHEMA, Frankfurt am Main. ISBN 978-3-89746-151-2.

**Other innovation activities:** Several, but none in specific due to space limitations.

**Supervision of PhDs, 2013 – present (ongoing or finished in 2013 or later):** *(Title and year)*

*Peter Herslund Jørgensen, 2010-2014; Amol Hukkerikar, 2011-2014; Thomas Bisgaard, 2012-2016; Andreas Åberg, 2013-2017; Jerome Frutiger, 2014-2017; Stefano Cignitti, 2016-2017; Ricardo Andre Fernandes Caroco, 2015-; Franz David Bähner, 2016-; Lukasz Ruczynski, 2016-; Kristian Meyer, 2016-; Hector Forero-Hernandez, 2016-; Merve Öner, 2016-.*

**Teaching and Education activities:**

Since 2002-: European Federation of Chemical Engineers' Working Party on Education (EFCE WPE). Teaching courses: Proces Control and Dynamics (28352), Laboratory in Chemical and Biochemical Engineering (28231), Separation Processes (28420), Process Design - Principles & Methods (88705, SDC), Advanced Optimization Techniques (Ph.d. course).

**Grants, 2013 – present (ongoing or finished in 2013 or later):**

SYNFERON (journal no. 4106-00035B by Innovation Fund Denmark).

**Research collaboration with other sectors, 2013 – present:**

Danish Companies: Novozymes, DONG Energy, Biosystemer Aps., Proces Design A/S, CP Kelco, LeoPharma, Novo Nordisk, Haldor Topsoe, International: Databases + property prediction methods incorporated into in-house software (derived from previous research projects) is accessed by several companies every day.

**Selected publications** *(the titles of 5 selected publications)*

- 1) Christensen S., Peters G.H., Hansen F.Y., O'Connell J.P., Abildskov J., 2007. "State Conditions Transferability of Vapor-Liquid Equilibria via Fluctuation Solution Theory with Correlation Function Integrals from Molecular Dynamics Simulation", *Fluid Phase Equilibria*, 260: 169-176.
- 2) Toftegård B., Clausen C.H., Bay Jørgensen S., Abildskov J., 2016. "New Realization of Periodic Cycled Separation", *Ind. Eng. Chem. Res.*, 55 (6): 1720.
- 3) Bisgaard T., Skogestad S., Abildskov J., Huusom J.K., 2017. "Optimal Operation and Stabilising Control of the Concentric Heat-Integrated Distillation Column", *Comp. Chem. Eng.*, 96: 196–211.
- 4) Frutiger J., Bell I., O'Connell J.P., Kroenlein K., Abildskov J., Sin G., 2017. "Uncertainty Assessment of Equations of State with Application to an Organic Rankine Cycle", *Mol. Phys.*, 115 (9-12): 1235.
- 5) Rodriguez-Donis I., Shcherbakova N., Abildskov J., Gerbaud V., 2017. "A Novel Method for Detecting and Computing Univolatility Curves in Ternary Mixtures", *Chem. Eng. Science* 173: 21–36.