

Prof. Dr.-Ing. Hans Hasse

University of Kaiserslautern
Department of Mechanical and Process Engineering
67653 Kaiserslautern, Germany
Current position: W3-Professor for Thermodynamics
Tel.: +49 631-205-3464
Fax: +49 631-205-3835
e-mail: hans.hasse@mv.uni-kl.de
web: <http://thermo.mv.uni-kl.de/lehrstuhl/mitarbeiter/hans-hasse/>



Born 27 March 1960 (Landau), Nationality: German, married, 2 grown-up children

Scientific Curriculum Vitae

1977 - 1984	Studies: Mechanical Engineering, U Karlsruhe
1984	Diploma in Mechanical Engineering (with distinction)
1985 - 1990	Research scientist, Laboratory of Thermodynamics, TU Kaiserslautern
1990	Ph.D. Thesis in Thermodynamics (with distinction)
1990 - 1995	Leading research scientist, Laboratory of Thermodynamics, TU Kaiserslautern
1995	Habilitation: TU Kaiserslautern, Thermodynamics
1995 - 1998	Process engineer, Research & Development, BASF SE, Ludwigshafen
1998 - 2008	Director, Institute of Thermodynamics and Thermal Process Engineering (ITT), University of Stuttgart
since 2008	Director, Laboratory of Engineering Thermodynamics (LTD) Faculty of Mechanical and Chemical Engineering, University of Kaiserslautern

Activities and Distinctions

1979	Senator Dr. Koch Award (University of Karlsruhe)
1979 - 1984	Scholarship of Studienstiftung des Deutschen Volkes
1995	Arnold Eucken Award of VDI Society of Process and Chemical Engineering
since 1996	Member of ProcessNet Working Party "Thermodynamics", Chairman 2010 - 2017
since 1998	Member of ProcessNet Working Party "Fluid Process Engineering"
since 2005	Member of ProcessNet Working Party "Molecular Modeling and Simulation for Industrial Process and Product Design", Chairman 2005 - 2013
2007	Winner of International Fluid Properties Simulation Challenge (IFPSC)
2007	Appointment offer of TU München (Chair of Fluid Process Engineering, declined)
2008 - 2018	Member of Working-Party of Thermodynamics (European Confederation of Chemical Engineering (EFCE))
since 2010	Member of ProcessNet Working Party "Thermodynamics" of VDI Society GET, Vice- Chairman 2010 – 2017
since 2012	Member of Scientific Advisory Board of Fraunhofer Institute for Industrial Mathematics (ITWM)
2013	PRACE-ISC Award for world record in system size in molecular dynamics simulations
2013	Reinhart Koselleck Excellence Project (DFG)
2014	Ernest Solvay Award for Chemical Engineering (Ernest Solvay Foundation)

2015	Akademiepreis des Landes Rheinland-Pfalz (Academy of Sciences and Literature of the German Federal State of Rhineland-Palatinate)
2016	European Research Council Advanced Grant (ERC AdG "ENRICO")
2008 – 2016	Member of DFG's National Review Panel (DFG Fachkollegium) in Technical Chemistry and Process Engineering), Chairman 2012 – 2016
since 2014	Member of ProcessNet Working Party "Process Design and Optimization"
since 2016	Member of Senate of DFG
since 2016	Member of Executive Committee of DFG

Peer-Reviewed Publications

- [1] Hasse, H.; Vrabec, J.; Stoll, J.: A set of molecular models for symmetric quadrupolar fluids. *The Journal of Physical Chemistry B* 105 (2001) 12126-12133.
- [2] Hasse, H.; Vrabec, J.: Grand Equilibrium: vapour-liquid equilibria by a new molecular simulation method. *Molecular Physics* 100 (2002) 3375-3383.
- [3] Hasse, H.; Fernandez, G.A.; Vrabec, J.: A molecular simulation study of shear and bulk viscosity and thermal conductivity of simple real fluids. *Fluid Phase Equilibria* 221 (2004) 157-163.
- [4] Hasse, H.; Maiwald, M.; Fischer, H.H.; Kim, Y.K.; Albert, K.: Quantitative high-resolution on-line NMR spectroscopy in reaction and process monitoring. *Journal of Magnetic Resonance* 166 (2004) 135-146.
- [5] Hasse, H.; Blagov, S.; Parada, S.; Bailer, O.; Moritz, P.; Lam, D.; Weinand, R.: Influence of ion-exchange resin catalysts on side reactions of the esterification of n-butanol with acetic acid. *Chemical engineering science* 61 (2006) 753-765.
- [6] Hasse, H.; Schnabel, T.; Srivastava, A.; Vrabec, J.: Hydrogen bonding of methanol in supercritical CO₂: comparison between ¹H NMR spectroscopic data and molecular simulation results. *The Journal of Physical Chemistry B* 111 (2007) 9871-9878.
- [7] Hasse, H.; Böttinger, W.; Maiwald, M.: Online NMR spectroscopic study of species distribution in MEA-H₂O-CO₂ and DEA-H₂O-CO₂. *Fluid Phase Equilibria* 263 (2008) 131-143.
- [8] Hasse, H.; Mangalapally, H.; Notz, R.; Hoch, S.; Asprion, N.; Sieder, G.; Garcia, H.: Pilot plant experimental studies of post combustion CO₂ capture by reactive absorption with MEA and new solvents. *Energy Procedia* 1 (2009) 963-970.
- [9] Hasse, H.; Burger, J.; Siegert, M.; Ströfer, E.: Poly (oxymethylene) dimethyl ethers as components of tailored diesel fuel: Properties, synthesis and purification concepts. *Fuel* 89 (2010) 3315-3319.
- [10] Hasse, H.; Deublein, S.; Eckl, B.; Stoll, J.; Lishchuk, S.V.; Guevara-Carrion, G.; Glass, C.W.; Merker, T.; Bernreuther, M.; Vrabec, J.: ms2: A molecular simulation tool for thermodynamic properties. *Computer Physics Communications* 182/11 (2011) 2350-2367.