



Dr. Sigrid Kusch

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Diploma Environmental Engineering (Dipl.-Ing., specialised in waste management and process engineering), completed 2001

PhD Doctoral degree completed 2007 (subject field: bioenergy, anaerobic digestion: laboratory and applied research)

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Thematic Competence Profile

Background and practice of my research and teaching are based in the environmental engineering discipline, but include interdisciplinary and transdisciplinary components. Key focus areas cover:

- Resources management, sustainable consumption and production, renewable resources, resource efficiency, cleaner production
- Circular economy, waste management, solid waste, organic wastes, e-waste
- Renewable energy, bioenergy, biological process engineering, anaerobic digestion (biogas)
- Organic resources, food waste, sustainable food systems
- Energy in urban environments, integration of underutilised biogenic energy carriers (bio-waste, zoo waste, horse manure, other lignocellulosic materials), interconnections of urban and rural areas
- Sustainability in research and practice, technology transfer

Relevant Professional Positions, Academic Training and Recognition

2009 ongoing	Visiting Researcher/ Visiting Research Fellow at University of Southampton (UK), Engineering and the Environment, member of the Bioenergy and Organic Resources Research Group
2016 ongoing	Member of the EPSRC Associate Peer Review College (Engineering and Physical Sciences Research Council, UK)
2015 ongoing	Member of the British Council Panel 'Environment, Agriculture and Food Sciences'; Institutional and Researcher Links/ Newton Fund assessment groups
2015 ongoing	Appointed Eurostars expert (waste treatment, renewables) (Eureka, European Commission)
2014 ongoing	Expert for the European Commission in Horizon 2020
2014 ongoing	Founder of 'ScEnSers Independent Expertise – Science and Engineering for Sustainable Environmental Resources' (non-commercial organisation, think tank)
2008 ongoing	Consultant and Freelance Project Engineer, Independent Scientist (currently in Ulm/ Germany, previously Nuernberg, Wuerzburg) (waste management, renewable energy, anaerobic digestion) (to flexibly complement academic focus)
2016 ongoing	Editorial Board member of Waste Management & Research
2015 ongoing	Future Earth Fellow (ISSC - International Social Science Council/ ICSU – International Council for Science/ Future Earth)
2015 – 2016	Coordinating Lead Author of the European Assessment of the Global Environmental Outlook Report of the United Nations Environment Programme (UNEP GEO 6)
2015 – 2016	Contributing expert to the UN Global Sustainable Development Report 2016 (GSDR 2016, UN Division for Sustainable Development)
2014 – 2016	Contract Professor for 'Sustainable and Renewable Resources', University of Padua, Italy
2011 – 2012	Substitute (Interim) Professor for Waste Management at Technical University of Dresden, Germany (temporary placement for 2 semesters with full teaching and examination responsibilities in the area of waste and resources management); Head of Chair; Deputy Director of the Institute for Waste Management and Contaminated Site Treatment
2011 – 2012	Member of Expert Panel 3rd ERA-IB Joint Call 2012 (European Research Area Industrial Biotechnology, EU panel with 11 experts)
2011 – 2014	Appointed as ZIF Young Fellow (Centre for Interdisciplinary Research, Bielefeld)
2008 – 2012	Academic Associate at University of Stuttgart (waste management, organic resources) (since 2010 partial and since 2011 primarily faculty position; since 2010 establishment of a research group based on new research areas brought to the faculty, such as zoo waste, micro gas grids, horse manure, urban bioenergy; granted leave for one year in 2011/12 to assume position in Dresden)
2007	Intellectual Property Manager at Technical University of Munich; responsible for intellectual property issues for several engineering faculties
2003 – 2007	Doctoral student with University of Hohenheim, Stuttgart (research in bioenergy)
2003 – 2006	Researcher at State Institute for Agricultural Engineering and Bioenergy, Stuttgart (applied and laboratory research in anaerobic digestion, dry digestion; conception of a dry digestion laboratory; consulting to practice)
2003	Freelance work for a waste specialist journal (RecyclingMagazin) in Munich
2002	Research at EAWAG in Duebendorf, Switzerland (ecological sanitation)

2001 – 2002	Research Assistant at University of Stuttgart (sanitary engineering)
2000	Temporary placement with Park Environmental Services in Newport/ UK (waste treatment)
1998 – 2000	Research Assistant at University of Stuttgart (industrial water technology)
1994 to 2001	Studies in Environmental Engineering; Technical University of Berlin, University of Stuttgart, ENTPE France, Technical University of Dresden

Selected Specific Activities

Journal Referee	ca. 170 completed reviews (total number of enquiries: ca. 350); review mainly for: 1) Waste Management & Research; 2) Waste Management; 3) Applied Energy; 4) Chemical Engineering Journal; 5) Journal of the Air & Waste Management Association; 6) Bio-resource Technology; 7) Journal of Cleaner Production; 8) Transactions of the ASABE American Society of Agricultural and Biological Engineers; 9) Biological Engineering Transactions; 10) Engineering in Life Sciences; 11) Water Research; 12) Journal of Industrial Ecology; 13) Water, Air, and Soil Pollution; 14) Chemie Ingenieur Technik; 15) Environmental Progress and Sustainable Energy; 16) Environmental Engineering and Management Journal; 17) Environmental Technology; 18) Critical Reviews in Biotechnology; 19) World Review of Science, Technology and Sustainable Development; 20) International Journal of Global Energy Issues; 21) International Journal of Environmental Engineering; 22) Energies; 23) Sustainability
Reviewer Proposals	ca. 90 completed evaluations (ca. 80 research projects, 5 workshops, 5 PhD placements) for various programmes (EU, Germany, Romania, Qatar, Denmark, UK, LIRA 2030 Africa)
Conference Reviews	Referee for conference submissions to various conferences (12 completed reviews)
Editor Roles	Editorial Board Member 'Waste Management & Research' (since 2016); Member of Editorial Board 'News in Engineering (NiE)' (since 2013); Guest Editor Engineering in Life Sciences (Special Issue 'Progress in Biogas', 2011 – 2012); Guest Editor International Journal of Environmental Engineering (Special Issue 'Progress in Landfill Management and Landfill Emission Reduction', 2009 – 2011)
Committees/ Panels	Consultative expert reviewer for ICSU (International Council for Science) on the framework for understanding SDG interactions (2016); External consultative expert reviewer for IPBES (Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services) (2016); Panel member 'Environment, Agriculture and Food Sciences' for the British Council Researcher Links programme/ Newton Fund (since 2015); Rapporteur EU Horizon 2020 (topical area waste, one- and two-stage calls, 3 panels since 2014); Rapporteur UEFISCDI Romania (NP III, 2016); Member of Expert Panel 3rd ERA-IB Joint Call 2012 (Industrial Biotechnology, 2011 – 2012); Member of the Committee Hydro Sciences of the TU Dresden (2012); Contest Judge for the 'Global School Enterprise Challenge' (run by Teach a Man to Fish, student led school businesses, 2 assessment rounds of final results in 2015 and 2016); Judge for business plans in the 'Global School Enterprise Challenge' (2016); Contest Judge 'Future City Competition' US National Finals 2015/16 (STEM programme for school students run by the US National Engineers Week Foundation, focal topic in 2015/16: waste management); Chairperson at several congresses (since 2009); Member of scientific/ organising committee of several congresses and other scientific/ public events (ca. 12 events)
Distinctions/ Prizes	SAGE Excellent Reviewer 2015 (voted by editorial board of Waste Management & Research); Best Reviewer Award Journal of the Air & Waste Management Association (2013); Appointed participant for the Young Scientists' DFG/ISSC/ICSU Conference on Integrated Science for the Future Earth theme 'Food Futures', Villa Vigoni, Italy (2013); Ranked among final top 40 high-potentials for the Fast Track Programme of the Robert Bosch Stiftung, Stuttgart, aiming at accelerated uptake of leadership positions (2012); Nominee for the postdoctoral programme 'Eliteprogramm für Postdoktoranden der Baden-Wuerttemberg Stiftung' based on conception of a research line on urban bioenergy (zoo waste, micro gas grids, horse manure, biowaste) (2010); Listed 2nd by BTU Cottbus (Brandenburgische Technische Universität, Germany) for the appointment of a junior professor for the area 'Waste Management and Bioenergy' (2009/2010); Recipient of several travelling scholarships; Nominee for the UNV Online Volunteering Award 2015 (nominated by Art for All in the World); Recipient of Scheffel-Prize of Literarische Gesellschaft Karlsruhe (literary community in Southern Germany) (1993)
Others	Member of several professional affiliations (academic and engineering); STEM-Mentor (science, technology, engineering, mathematics) for grammar school girls (project Cybermentor, University of Regensburg, 2010 – 2012); Co-organiser of an institutional 'girl's day' (one-day programme with technical/ scientific topics for grammar school girls, University of Hohenheim, 2005); Further activities as mentor or in similar positions; Several years of voluntary private tutoring for grammar school children with background of migration

Publications

- ** : scientific journals with full peer review practice; # : reviewed contributions to professional journals or proceedings; ~ : books, book chapters
- #88 Kusch, S.: What about bioalcohol? Further progress towards sustainable transport systems with biofuels. Proceedings "16th International Multidisciplinary Scientific Geoconference SGEM 2016 - Vienna GREEN Extended Sessions", Book 4, 2016, pp. 357-364
- ~87, ~86 UNEP/UNECE: GEO-6 Assessment for the pan-European region. United Nations Environment Programme, Nairobi, Kenya, 2016 (376 pages)
- Authors: van den Bosch, M.; Dahl, A.; Barthod, C.; Flörke, M.; Franck, U.; Häuser, C.L.; Hills, C.; Kirilenko, A.; Kock, R.; Kusch, S.; Matschullat, J.; Persson, L.; Plesnik, J.; Tronczyński, J.; Urge-Vorsatz, D.; Zdruli, P.; Bernauer, T.; Loewe, C.; Özkaynak, B.; Pintér, L.; Cave, B.; Nieuwenhuijsen, M.; Armiento, G.; Ashakeeva, G.; Bell, S.; Bergmann, L.; Diolaiuti, G.A.; Dronin, N.; Evrard, O.; Gómez, J.A.; Gorobets, A.; Grasso, M.; Guérin, L.; Idrisova, A.; Jeftic, L.; Klasinc, L.; Loeschel, A.; Makarova, A.; Mangalagiu, D.; Mzavanadze, N.; Nicholas, K.; Perelet, R.; Roe, J.; Padoa-Schioppa, E.; Senese, A.; Sobek, A.; Steinbacher, M.; Stoyanova, N.; Telenius, A.; Vihervaara, P.; Wetzels, F.T.; Zimmermann, F.; Almásy, D.; Rodriguez-Labajos, B.; Gaponenko, N.; Billot, M.; Boileau, P.; Dao, H.; Leonova, E.; Marques, T.; Anarbekov, O.; Barberio, G.; Brauch, H.G.; Costello, M.; Falconi, M.; Frantzeskaki, N.; Galgani, F.; Gogalazde, K.; Grenier, C.; Grofova, R.; Henocque, Y.; Ivanov, M.; Boza-Kiss, B.; Krasilnikov, P.; Kube, R.; Masliukovska, O.; Rastelli, V.; Tripathi, N.; Robins, N.
- Chapter 2 "Environmental state and trends: coordinating lead author
 - Chapter 4 "Outlooks and emerging issues": contributing author
- **85 Kusch, S.: An overview concerning combined heat and power production: a smart way to improve energy efficiency. CSE City Safety Energy 2-2015, 2016, pp. 132-141
- 84 Kusch, S.; Fleming, A.; Craddock-Henry, N.; Schmitz, N.; Pereira, L.; Vogt, J.; Lim, M.; Kharrazi, A.; Evoh, C.J.; Hamel, P.; Bollmohr, S.; Patterson, J.; Adler, C.; Waterlander, W.; Sugiura, A.; Augustyn, A.M.; Dogra, A.; Mukherjee, N.; Onzere, S.; Mahomoodally, F.; Hughes, A.C.; Bowen, K.; Tironi, A.; Smith, K.; Hoffenson, S.; Udenigwe, C.C.: Sustainability in a changing world: integrating human health and wellbeing, urbanisation, and ecosystem services. Brief for the UN Global Sustainable Development Report, 2016 (11 pages)
- ~83 Kusch, S.; Udenigwe, C.C.; Cavinato, C.; Gottardo, M.; Micolucci, F.: Value-added utilization of agro-industrial residues. In: Rai, R. (edt.): Advances in Food Biotechnology. John Wiley & Sons, West Sussex, UK, 2016, pp. 415-426
- #82 Beggio, G.; Kusch, S.: Renewable energy cooperatives: main features and success factors in collectively implementing energy transition. Proceedings "Quaesti - The 3rd Virtual Multidisciplinary Conference", 7-11 Dec 2015, EDIS Publishing University of Zilina, Slovakia, 2015, pp. 233-237
- ~81 Kusch, S.; Beggio, G.: Cooperatively owned renewable energy facilities – unlocking urban community power. In: Condie, J.; Cooper, A.M. (edt.): Dialogues of sustainable urbanisation: social science research and transition to urban contexts. Penrith: University of Western Sydney, 2015, pp. 252-255 (ISSC Book of Blogs)
- #80 Lazzarin, L.; Kusch, S.: E-Waste management framework and the importance of producer responsibility and proactive hackerspaces. Proceedings "EIIC 2015 – The 4th Electronic International Interdisciplinary Conference", 10-14 Aug 2015, EDIS Publishing University of Zilina, Slovakia, 2015, pp. 188-192
- #79 Kusch, S.: Energy and environment in Romania: A condensed overview. Proceedings "EIIC 2015 – The 4th Electronic International Interdisciplinary Conference", 10-14 Aug 2015, EDIS Publishing University of Zilina, Slovakia, 2015, pp. 193-196
- 78 Kusch, S.: Industrial symbiosis: powerful mechanisms for sustainable use of environmental resources. Brief for the UN Global Sustainable Development Report 2015 (3 pages)
- #77 Kusch, S.: Measuring sustainability: a brief overview of common sustainability metrics. Proceedings "RCITD 2014 – 2nd Research Conference in Technical Disciplines", 17-21 Nov 2014, EDIS Publishing University of Zilina, Slovakia, 2014, pp. 29-32
- #76 Kusch, S.; Udenigwe, C.C.; Cavinato, C.; Gottardo, M.; Micolucci, F.: First- and second-generation valorisation of wastes occurring in the food supply chain. Proceedings "Venice 2014 - Fifth International Symposium on Energy from Biomass and Waste", 17-20 Nov 2014 in San Servolo, Venice, Italy, 2014, paper no. 333 (13 pages)
- **75 Kusch, S.: Management and valorisation of equine waste: a review and SWOT analysis. News in Engineering 2 (2), 2014, pp. 47-54
- #74 Kusch, S.: Biomass in the context of industrial ecology. Proceedings "EIIC 2014 – The 3rd Electronic International Interdisciplinary Conference", 01-05 Sept 2014, EDIS Publishing University of Zilina, Slovakia, 2014, pp. 449-452
- #73 Kusch, S.: Understanding and managing the start-up phase in dry anaerobic digestion. Proceedings "RCITD 2013 – Research Conference in Technical Disciplines", 18-22 Nov 2013, EDIS Publishing University of Zilina, Slovakia, 2013, pp. 26-30
- #72 Kusch, S.: Food futures – reflections on the engineering theme waste management. Proceedings "Sardinia 2013, Fourteenth International Waste Management and Landfill Symposium", S. Margherita di Pula, Cagliari, Italy, 30 Sept - 4 Oct 2013, CISA Publisher, Italy, 2013, paper 670 (14 pages)

- #71 Zhang, Y.; Arnold, R.; Paavola, T.; Vaz, F.; Neiva Correia, C.; Cavinato, C.; Kusch, S.; Heaven, S.: Compositional analysis of food waste entering the source segregation stream in four European regions and implications for valorisation via anaerobic digestion. Proceedings "Sardinia 2013, Fourteenth International Waste Management and Landfill Symposium", S. Margherita di Pula, Cagliari, Italy, 30 Sept - 4 Oct 2013, CISA Publisher, Italy, 2013, paper 713 (12 pages)
- **70 Kusch, S.; Evoh, C.J.: Meeting the growing demand for food and bioenergy in the 21st century: synergies through efficient waste management. *Biofuels* 4 (5), 2013, pp. 479-483
- #69 Kusch, S.: Food waste on the agenda – key factors to be considered. Proceedings "EIIC 2013 – The 2nd Electronic International Interdisciplinary Conference", 02-06 Sept 2013, EDIS Publishing University of Zilina, Slovakia, 2013, pp. 343-346
- #68 Kusch, S.: Horse stall waste: amounts, management, bioenergy generation. Proceedings "EIIC 2013 – The 2nd Electronic International Interdisciplinary Conference", 02-06 Sept 2013, EDIS Publishing University of Zilina, Slovakia, 2013, pp. 423-428
- **67 Alsheyab, M.; Schingnitz, D.; Al-Shawabkeh, A.; Kusch, S.: Analysis of the potential use of major refuse derived fuels in Jordan as supplementary fuel. *Journal of the Air & Waste Management Association* 63 (8), 2013, pp. 902-908
- **66 Alsheyab, M.; Kusch, S.: Decoupling resources use from economic growth – chances and challenges of recycling electronic communication devices. *Journal of Economy, Business and Financing* 1 (1), 2013, pp. 99-107
- 65 Kusch, S.: Food and bioenergy - Reducing competitions and fostering synergies. Poster "Food Futures", ISSC/DFG/ ICSU Young Scientists Networking Conference on Integrated Science, April 2013, Villa Vigoni, Italy – available on Valorgas project website (Uni Southampton) (<http://www.valorgas.soton.ac.uk/publications.htm>)
- #64 Kusch, S.; Köttner, M.: Factors for successful implementation of decentralized bioenergy projects in practice. Proceedings "Global Virtual Conference 2013", 08-12 April 2013, EDIS Publishing University of Zilina, Slovakia, 2013, pp. 653-658
- #63 Alsheyab, M.; Kusch, S.: End of life of electronic communication devices in the context of strategies to decouple resources use from economic growth. Proceedings "ICTIC 2013 – The 2nd Information and Communication Technologies International Conference", 25-29 March 2013, Faculty of Management Science and Informatics at the University of Zilina, Slovakia, 2013, pp. 133-137
- #62 Kusch, S.; Schäfer, W.: Impact of solid substrate fractions on total methane production in anaerobic digestion. Proceedings "Venice 2012 - Fourth International Symposium on Energy from Biomass and Waste", 12-15 Nov 2012 in San Servolo, Venice, Italy, 2012, paper no. 395 (8 pages)
- #61 Alsheyab, M.; Kusch, S.: Decoupling resources use from economic growth – a study looking at recycling of WEEE. Proceedings "Virtual International Conference on Advanced Research in Scientific Fields 2012", 03-07 Dec 2012, EDIS Publishing University of Zilina, Slovakia, 2012, pp. 1615-1619
- #60 Kusch, S.: Biogas grids – an intelligent element in efficient utilisation of renewable energy. Proceedings "Virtual International Conference on Advanced Research in Scientific Fields 2012", 03-07 Dec 2012, EDIS Publishing University of Zilina, Slovakia, 2012, pp. 1823-1826
- #59 Kusch, S.: Energy efficiency of zoos: an interdisciplinary challenge with special benefits in urban environments. Proceedings "Virtual International Conference on Advanced Research in Scientific Fields 2012", 03-07 Dec 2012, EDIS Publishing University of Zilina, Slovakia, 2012, pp. 1353-1356
- **58 Oechsner, H.; Jungbluth, T.; Kranert, M.; Kusch, S. (eds.): *Engineering in Life Sciences* 12 (3) (Special Issue Biogas), 2012, pp. 239-351
- **57 Oechsner, H.; Jungbluth, T.; Kranert, M.; Kusch, S.: Editorial: Progress in biogas - State of the art and future perspectives. *Engineering in Life Sciences* 12 (3) (Special Issue Biogas), 2012, pp. 239-240
- ~56 Kranert, M.; Kusch, S.; Huang, J.; Fischer, K.: Anaerobic digestion of waste. In: Karagiannidis, A. (ed.): *Waste to Energy - Opportunities and Challenges for Developing and Transition Economies*. Springer-Verlag, London, 2012, pp. 107-135
- #55 Kusch, S.; Schumacher, B.; Oechsner, H.; Schäfer, W.: Oat husks in anaerobic digestion. Proceedings "WasteEng 2012 – 4th international conference on Engineering for Waste and Biomass Valorisation", 10-13 Sept 2012 in Porto, Portugal, pp. 43-48 + Book of Abstracts, p. 33
- #54 Kusch, S.: Organic wastes as energy source in zoos. Proceedings "WasteEng 2012 – 4th international conference on Engineering for Waste and Biomass Valorisation", 10-13 Sept 2012 in Porto, Portugal, pp. 1399-1404 + Book of Abstracts, p. 298
- **53 Kusch, S.; Oechsner, H.; Jungbluth, T.: Effect of various leachate recirculation strategies on batch anaerobic digestion of solid substrates. *International Journal of Environment and Waste Management* 9 (1-2) (Special Issue "Treatment processes for mixed organic wastes, residual biosolids and wastewaters"), 2012, pp. 69-88
- 52 Panic, O.; Kusch, S.; Kranert, M.: Mikrogasnetze - mehr Energieeffizienz durch innovative Konzepte zur Verwertung biogener Gase. Proceedings "TAKAG 2011 - Deutsch-Türkische Abfalltage: Handlungsstrategien und Technologien für eine nachhaltige Kreislaufwirtschaft", Stuttgart, Oldenbourg Industrieverlag, 2011, pp. 643-648
- ~51 Kusch, S.; Schäfer, W.; Kranert, M.: Dry digestion of organic residues. In: Sunil Kumar (ed.): *Integrated Waste Management – Volume I*. InTech open access publisher, Rijeka, 2011, Croatia, pp. 115-134
- **50 Kusch, S.; Kranert, M.; Reiser, M. (eds.): Progress in Landfill Management and Landfill Emission Reduction. *International Journal of Environmental Engineering (IJEE)* 3 (3-4) (Guest Edited Special Issue), 2011, pp. 207-409
- **49 Kusch, S., Reiser, M., Kranert, M.: Preface to the Special Issue 'Progress in Landfill Management and Landfill Emission Reduction'. *International Journal of Environmental Engineering (IJEE)* 3 (3-4), 2011, pp. 207-209

- **48 Kusch, S.; Schumacher, B.; Oechsner, H.; Schäfer, W.: Methane yield of oat husks. *Biomass and Bioenergy* 35, 2011, pp. 2627-2633
- 47 Panic, O.; Hafner, G.; Kranert, M.; Kusch, S.: Mikrogasnetze - eine innovative Lösung zur Steigerung der Energieeffizienz von Vergärungsanlagen. *energie wasser-praxis* 62 (2), 2011, pp. 18-23
- #46 Kusch, S.; Kranert, M.; Bi, K.; Fischer, K.: Influence of regulatory frameworks on biogas plant types - the example of Germany. Proceedings "BIT's 1st Annual World Congress of Bioenergy", Dalian, China, 2011, p. 225
- #45 Kusch, S.; Azodanloo, M.; Frank, A.; Hafner, G.; Bachler, J.; Kranert, M.: Interdisciplinary approaches to advances in sustainable biogas production in Europe. Proceedings "Progress in Biogas II – Biogas production from agricultural biomass and organic residues", FnBB/ GERBIO, Stuttgart, 2011, pp. 52-55
- 44 Kusch, S.; Salter, A.: Biogas made in England. *UmweltMagazin* 40 (6), 2010, pp. 73-74
- ~43 Kusch, S.: Irland. In: *Exporthandbuch Biogas International 2009. Volume 2*, dena Deutsche Energieagentur, Berlin, 2010, pp. 129-160
- ~42 Kusch, S.: Frankreich. In: *Exporthandbuch Biogas International 2009. Volume 2*, dena Deutsche Energieagentur, Berlin, 2010, pp. 41-76
- ~41 Kusch, S.; Weibel, A.; Haas, A.: Italien. In: *Exporthandbuch Biogas International 2009. Band 2*, dena Deutsche Energieagentur, Berlin, 2010, pp. 161-190
- #40 Kusch, S.; Oechsner, H.; Kranert, M.; Jungbluth, T.: Methane generation from the recirculated liquid phase in batch operated anaerobic dry digestion. *Buletinul USAMV-CN* 66 (2), 2009, Cluj-Napoca, Romania, pp. 110-115
- #39 Berechet, M.; Kusch, S.; Kranert, M.: Biogas production in simple batch systems - an option for Romania? *Buletinul USAMV-CN* 66 (2), 2009, Cluj-Napoca, Romania, p. 535
- #38 Morar, M.; Oechsner, H.; Dancea, Z.; Kusch, S.: The anaerobic digestion as process step for hygienisation of liquid manure and agro-industrial waste. *Bulletin UASVM*, 66 (2), 2009, Cluj-Napoca, Romania, pp. 149-154
- **37 Kusch, S.; Morar, M.V.: Integration of lignocellulosic biomass into renewable energy generation concepts. *ProEnvironment ProMediu* 2 (3), 2009, pp. 32-37
- **36 Kusch, S.; Morar, M.V.: Integrarea biomasei lignocelulozice în conceptul de producere de energie regenerabilă. *ProEnvironment ProMediu* 2 (3), 2009, pp. 97-102 (in Romanian)
- 35 Kusch, S.: Zeitgemäße Deponietechnik 2009. *Wasser und Abfall* 11 (7-8), 2009, pp. 16-18
- 34 Kusch, S.: Mehr als ein Schutz vor Nachahmern (Patente auf Techniken der Abfall- und Kreislaufwirtschaft). *RECYCLING magazin* 15, 2009, pp. 20-21
- 33 Kusch, S.: Key success factors in discontinuously operated dry digestion. International biogas training course 15-19 Sept 2008 in Stuttgart, University of Hohenheim, IBBK International Biogas and Bioenergy Competence Centre (course material)
- 32 Kusch, S.: Methanisierung stapelbarer Biomassen in diskontinuierlich betriebenen Feststofffermentierungsanlagen. Proceedings "Aktuelles aus der Hohenheimer Biogasforschung", 10 Sept 2008 in Hohenheim (organisers: Ministry for Nutrition and Rural Affairs Baden-Wuerttemberg, State Institute for Agricultural Machinery and Construction)
- 31 Köttner, M.; Kusch, S.; Kaiser, A.; Dörrie, D.; Collins, D.: Economic modelling of anaerobic digestion/ biogas installations in a range of rural scenarios in Cornwall. Presentation 28 Aug 2008 during symposium "Anaerobic Digestion", organized by Cornwall Agri-Food Council, Wadebridge, Royal Cornwall Showground (UK)
- 30 Köttner, M.; Kusch, S.; Kaiser, A.; Dörrie, D.; Collins, D.: Economic modelling of anaerobic digestion/ biogas installations in a range of rural scenarios in Cornwall. Final report for Cornwall Agri-Food Council, 2008 (167 pgs)
- 29 Kusch, S.; Oechsner, H.: Option Trockenvergärung in Abhängigkeit vorhandener Substrate. Proceedings "Internationales Fachsymposium Trockenfermentation – International Symposium on Anaerobic Dry Fermentation", IBBK, 20-22 Febr 2008 in Berlin, pp. 137-144
- 28 Kusch, S.; Oechsner, H.: Application of dry fermentation depending on the input substrates. Proceedings "Internationales Fachsymposium Trockenfermentation – International Symposium on Anaerobic Dry Fermentation", IBBK, 20-22 Febr 2008 in Berlin, pp. 145-152
- **27 Kusch, S.; Oechsner, H.; Jungbluth, T.: Biogas production with horse dung in solid-phase digestion systems. *Bioresource Technology* 99, 2008, pp. 1280-1292
- ~26 Kusch, S.: Methanisierung stapelbarer Biomassen in diskontinuierlich betriebenen Feststofffermentationsanlagen. Doctoral Thesis University of Hohenheim, Herbert Utz Verlag, München, 2007
- #25 Kusch, S.: Vergärung von Grassilage in berieselten Feststoffschüttungen. *Wasser und Abfall* 9 (6), 2007, pp. 40-44 (article reviewed as part of competition for young authors)
- #24 Kusch, S.; Oechsner, H.: Biogas production with agricultural substrates in batch-operated solid-phase digestion systems. In: VDI-Max-Eyth-Gesellschaft (edt.): *World Congress Agricultural Engineering for a Better World* (Bonn, 3-7 Sept 2006). VDI-Berichte Nr. 1958, VDI Verlag Duesseldorf, 2006, pp. 741-742 + extended version on CD-Rom (6 pages, manuscript no. EN 239 A)
- ~23 Kusch, S.; Oechsner, H.; Jungbluth, T.: Ausgewählte Ergebnisse zur Vergärung von Feststoffen in berieselten Boxenfermentern mit Batch-Betrieb. In: *Gülzower Fachgespräche, FNR*, vol. 24, 2006, pp. 59-79
- #22 Kusch, S.; Kranert, M.; Oechsner, H.; Jungbluth, T.: Aufkonzentrierung des Prozesswassers bei der Feststoffvergärung in Boxenfermentern. *KA – Abwasser, Abfall* 53 (8), 2006, pp. 804-811
- 21 Kusch, S.; Heinrich, M.; Oechsner, H.; Jungbluth, T.: Verfahrensführung bei der Feststoffvergärung in berieselten Boxenfermentern mit Batch-Betrieb. *Wasser und Abfall* 8 (6), 2006, pp. 18-21
- 20 Kusch, S.: Grasgrüne Energie vom Landwirt. *UmweltMagazin* 36 (3), 2006, pp. 48-49

- 19 Kusch, S.; Oechsner, H.: Neues von der Trockenfermentation. Proceedings "Bioenergienutzung in Baden-Württemberg – Auf dem Weg zum nachhaltigen Ausbau", Akademie Ländlicher Raum Baden-Wuerttemberg, 13 Febr 2006, Stuttgart (5 pages)
- 18 Kusch, S.; Oechsner, H.: Produktion von Biogas in diskontinuierlich betriebenen Feststofffermentern. Proceedings "Wirtschaftsmotor Biogas", 15. Jahrestagung Fachverband Biogas (annual meeting Biogas Association), 25-27 Jan 2006, Hannover, p. 239
- #17 Kusch, S.; Oechsner, H.; Jungbluth, T.: Biogas production in discontinuously operated solid-phase digestion systems. Proceedings of 7th (8th) FAO/SREN-Workshop "The future of biogas for sustainable energy production in Europe", held 30 Nov to 02 Dec 2005 in Uppsala, Sweden (8 pages)
- 16 Kusch, S.; Oechsner, H.: Vergärung landwirtschaftlicher Feststoffe in berieselten Boxenfermentern. Proceedings "Biogas – alte und neue Chancen für Land(wirt)schaft und Kommunen", Akademie für Natur- und Umweltschutz Baden-Wuerttemberg, 19 Oct 2005, Stuttgart (Haus der Wirtschaft) (10 pages)
- #15 Kusch, S.; Morar, M.V.; Oechsner, H.; Jungbluth, T.: Research on the production of biogas in solid-phase digestion systems using agricultural substrates. Buletinul USAMV-CN 61, 2005, University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca, Romania, ISSN 1454-2382, pp. 289-294
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