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Profile

Projectmanager and Chemical Engineer, Ph.D. at DTU Engineering Technology

Qualifications

Biomass and Biorefinery, Ph.D., Biomass pelletization , Technical University of Denmark
2008 → 2011
Award Date: 1 Nov 2011

Biochemistry and Process Engineering, Master of Science (M.Sc.), Leibniz University Hannover
2000 → 2005
Award Date: 1 Oct 2005

Biochemistry and Life Science, Bachelor of Science (B.Sc.), Leibniz University Hannover
2000 → 2005
Award Date: 1 Oct 2003

Employment

Project Manager

Department of Engineering Technology and Didactics
Technical University of Denmark
Ballerup, Denmark
2 Mar 2018 → present

Office of Innovation and Development

Technical University of Denmark
Ballerup, Denmark
22 Jan 2021 → present

Projectmanager

Danish Technological Institute
Tåstrup, Denmark
1 Jan 2012 → 1 Jan 2018

Visiting Scholar

United States Department of Agriculture
United States
1 Jan 2010 → 1 Jan 2010

Reserach Engineer

Luleå University of Technology
Sweden
1 Jan 2007 → 1 Jan 2008

Development Engineer

Danisco AS

Denmark

1 Jan 2005 → 1 Jan 2007

Research outputs

Effect of the Characteristics of Maleic Anhydride-Grafted Polypropylene (MAPP) Compatibilizer on the Properties of Highly Filled (85%) Kenaf-Polypropylene Composites

Sanadi, A. R. & Stelte, W., 2023, In: *Materials Research*. 26, 6 p., e20220428.

Coir Fibers as Valuable Raw Material for Biofuel Pellet Production

Stelte, W., Barsberg, S. T., Clemons, C., Morais, J.P.S., de Freitas Rosa, M. & Sanadi, A. R., 2019, In: *Waste and Biomass Valorization*. 10, 11, p. 3535–3543

Determination of off-gassing and self-heating potential of wood pellets – Method comparison and correlation analysis

Sedlmayer, I., Arshadi, M., Haslinger, W., Hofbauer, H., Larsson, I., Lönnermark, A., Nilsson, C., Pollex, A., Schmidl, C., Stelte, W., Wopienka, E. & Bauer-Emhofer, W., 2018, In: *Fuel*. 234, p. 894-903

Cross-Linked Amylose Bio-Plastic: A Transgenic-Based Compostable Plastic Alternative: a transgenic-based compostable plastic alternative

Sagnelli, D., Hooshmand, K., Kemmer, G. C., Kirkensgaard, J. J. K., Mortensen, K., Giosafatto, C. V. L., Hølse, M., Hebelstrup, K. H., Bao, J., Stelte, W., Bjerre, A-B. & Blennow, A., 2017, In: *International Journal of Molecular Sciences*. 18, 10, 12 p., 2075.

Semi-continuous anaerobic co-digestion of cow manure and banana waste: effects of mixture ratio

Joute, Y., El Bari, H., Belhadj, S., Karouach, F., Gradi, Y., Stelte, W. & Bjerre, A. B., 2016, In: *Applied Ecology and Environmental Research*. 14, 2, p. 337-349

Process optimization of combined biomass torrefaction and pelletization for fuel pellet production - A parametric study

Rudolfsson, M., Stelte, W. & Lestander, T. A., 2015, In: *Applied Energy*. 140, p. 378-384

Kinetic model for torrefaction of wood chips in a pilot-scale continuous reactor

Shang, L., Ahrenfeldt, J., Holm, J. K., Bach, L. S., Stelte, W. & Henriksen, U. B., 2014, In: *Journal of Analytical and Applied Pyrolysis*. 108, p. 109-116

Lab and Bench-Scale Pelletization of Torrefied Wood Chips: Process Optimization and Pellet Quality

Shang, L., Nielsen, N. P. K., Stelte, W., Dahl, J., Ahrenfeldt, J., Holm, J. K., Puig Arnavat, M., Bach, L. S. & Henriksen, U. B., 2013, In: *BioEnergy Research*. 7, 1, p. 87-94

Pelletizing properties of torrefied wheat straw

Stelte, W., Nielsen, N. P., Hansen, H. O., Dahl, J., Shang, L. & Sanadi, A. R., 2013, In: *Biomass & Bioenergy*. 49, p. 214-221

The influence of partial oxidation mechanisms on tar destruction in TwoStage biomass gasification

Ahrenfeldt, J., Egsgaard, H., Stelte, W., Thomsen, T. & Henriksen, U. B., 2013, In: *Fuel*. 112, p. 662-680

Changes of chemical and mechanical behavior of torrefied wheat straw

Shang, L., Ahrenfeldt, J., Holm, J. K., Sanadi, A. R., Barsberg, S. T., Thomsen, T., Stelte, W. & Henriksen, U. B., 2012, In: *Biomass & Bioenergy*. 40, p. 63-70

Fuel Pellets from Wheat Straw: The Effect of Lignin Glass Transition and Surface Waxes on Pelletizing Properties

Stelte, W., Clemons, C., Holm, J. K., Ahrenfeldt, J., Henriksen, U. B. & Sanadi, A. R., 2012, In: *BioEnergy Research*. 5, p. 450-458

Quality effects caused by torrefaction of pellets made from Scots pine

Shang, L., Nielsen, N. P. K., Dahl, J., Stelte, W., Ahrenfeldt, J., Holm, J. K., Thomsen, T. & Henriksen, U. B., 2012, In: Fuel Processing Technology. 101, p. 23-28

Recent Developments in Biomass Pelletization - A Review

Stelte, W., Sanadi, A. R., Shang, L., Holm, J. K., Ahrenfeldt, J. & Henriksen, U. B., 2012, In: BioResources. 7, 3, p. 4451-4490

A study of bonding and failure mechanisms in fuel pellets from different biomass resources

Stelte, W., Holm, J. K., Sanadi, A. R., Barsberg, S., Ahrenfeldt, J. & Henriksen, U. B., 2011, In: Biomass & Bioenergy. 35, 2, p. 910-918

Fuel pellets from biomass: The importance of the pelletizing pressure and its dependency on the processing conditions

Stelte, W., Holm, J. K., Sanadi, A. R., Barsberg, S., Ahrenfeldt, J. & Henriksen, U. B., 2011, In: Fuel. 90, 11, p. 3285-3290

Optimization of a multi-parameter model for biomass pelletization to investigate temperature dependence and to facilitate fast testing of pelletization behavior

Holm, J. K., Stelte, W., Posselt, D., Ahrenfeldt, J. & Henriksen, U. B., 2011, In: Energy & Fuels. 25, 8, p. 3706-3711

Pelletizing properties of torrefied spruce

Stelte, W., Clemons, C., Holm, J. K., Sanadi, A. R., Ahrenfeldt, J., Shang, L. & Henriksen, U. B., 2011, In: Biomass & Bioenergy. 35, 11, p. 4690-4698

Thermal transitions of the amorphous polymers in wheat straw

Stelte, W., Clemons, C., Holm, J. K., Ahrenfeldt, J., Henriksen, U. B. & Sanadi, A. R., 2011, In: Industrial Crops and Products. 34, 1, p. 1053-1056

Preparation and Characterization of Cellulose Nanofibers from Two Commercial Hardwood and Softwood Pulps

Stelte, W. & Sanadi, A. R., 2009, In: Industrial & Engineering Chemistry Research. 48, 24, p. 11211-11219

Prizes

DTU Young Research Award 2012

Stelte, Wolfgang (Recipient), 2012