Curriculum Vitae Daniel Söderberg 2020-03-09

Education

1994	M.Sc.	Vehicle Engineering, KTH, Stockholm, Sweden
1999	Ph.D.	Fluid Mechanics, KTH, Stockholm, Sweden
2006	Docent	Fluid Physics, KTH, Stockholm, Sweden

Appointments

2018-	Director, the National research platform Treesearch
2016-2018	Head of Department, Dept. of Mechanics, KTH Royal Institute of Technology
2014-2016	Deputy Head of Department, Dept .of Mechanics, KTH Royal Institute of Technology
2014-2018	Director, Odqvist laboratory – Centre for Engn. Mechanics, KTH Royal Inst. of Tech.
2014-2018	Director, the Excellence center BiMaC Innovation, KTH Royal Institute of Technology
2014-2016	Co-Director, Wallenberg Wood Science Center, KTH Royal Institute of Technology
2009-2014	Deputy Director, Innventia (research institute, non-publishing position)
2008-2014	Adjunct Professor in Fluid Physics, KTH Royal Institute of Technology (20%)
2005-2008	Major Project Manager, STFI/Innventia (research institute, non-publishing position)
2002-2004	Senior Research Manager, STFI (research institute, non-publishing position)
1999-2002	Senior Research Associate, STFI (research institute)
1995-1999	PhD student, KTH Royal Institute of Technology

Significant grants as PI (1 eur = 10 sek)

6.0 MSEK for the project "TESS, The Engineered Sheet Structure – Stratified Forming" from the Swedish Energy Agency, 2003.
57 MSEK for the project "TESS II, The Engineered Sheet Structure – Stratified Forming" from an industry group, EU and the Swedish Energy Agency, 2004–2008.
11.2 MEUR for the EU-project "BoostEff – boosting raw material and energy efficiency using advanced sheet structures and fractionation", 2010-2013.
14 MSEK for the project "BiMaC Innovation" from Vinnova, 2016-2018.
70 MSEK for the project "The collaboration project Treesearch" from Vinnova, 2017-2021.
172 MSEK for "Treesearchfrom" an industry group: Ahlström-Munksjö, BillerudKorsnäs, Holmen, Neste, SCA, Stora Enso, Södra and Tetra Pak, 2017-2028.

Fellowships, awards and prizes

1995; Bo Rydin's award for best MSc-thesis.
2004; Awarded the ATIP Innovation Award 2004, France (first price, Palme d'Or).
2005; The Paper Physics Committee "Best Presentation in the Area" Award
2008; Jasper Mardon Memorial Prize for Best Papermaking Technology Paper
2014; Van den Akker Award for best paper in the field of Paper Physics
2014; The Paper Physics Committee "Best Presentation in the Area" Award
2016; The SPCI Ekman medal, January 2016.

Commisions of trust

Chairman of the steering committee, paper technology group, FaxénLaboratoriet, 2004 – 2005.
Member of the project board, Ecotarget EU-project, 2004 – 2008.
Member of the research committee, The Swedish Association of Pulp and Paper Engineers, 2006–2013.
Chairman of the research committee, The Swedish Association of Pulp and Paper Engineers, 2010 –2013.
Member of the board, The Swedish Association of Pulp and Paper Engineers, 2006 – 2013.
Member of the committee, The Pulp and Paper Fundamental Research Society, UK, 2006 –.
Chairman, The Pulp and Paper Fundamental Research Society, UK, 2013 – 2018.

Entrepreneurial achievements

Significant efforts have been made in the are of applied research and innovation in close connection to the pulp and paper industry related. This includes extensive experience in contract research (apart from in the Nordic countries in Europe, Africa, North America). Innovator of two technical process systems that presently is available on the market related to pulp- and papermaking.

Significant publications past 5 years

1. Ankerfors, M., Lindström, T., & Söderberg, D. (2014), "The use of microfibrillated cellulose in fine paper manufacturing - Results from a pilot scale papermaking trial", *Nordic Pulp and Paper Research Journal,* vol. 29 no. 3, pp. 476-483.
2. Håkansson, K. M. O., Fall, A. B., Lundell, F., Yu, S., Krywka, C., Roth, S. V., Santoro, G., Kvick, M., Prahl Wittberg, L., Wågberg, L., & Söderberg, L. D. (2014), "Hydrodynamic alignment and assembly of nanofibrils resulting in strong cellulose filaments", *Nature Communications,* vol. 5
3. Håkansson, K. M. O., Lundell, F., Prahl-Wittberg, L., & Söderberg, L. D. (2016), "Nanofibril Alignment in Flow Focusing: Measurements and Calculations", *Journal of Physical Chemistry B,* vol. 120 no. 27, pp. 6674-6686.
4. Kamada, A., Mittal, N., Söderberg, L. D., Ingverud, T., Ohm, W., Roth, S. V., Lundell, F., & Lendel, C. (2017), "Flow-Assisted assembly of nanostructured protein microfibers", *Proceedings of the National Academy of Sciences of the United States of America,* vol. 114 no. 6, pp. 1232-1237.
5. MacKenzie, J., Söderberg, D., Swerin, A., & Lundell, F. (2017), "Turbulent stress measurements with phase-contrast magnetic resonance through tilted slices", *Experiments in Fluids,* vol. 58 no. 5,
6. Mittal, N., Jansson, R., Widhe, M., Benselfelt, T., Håkansson, K. M. O., Lundell, F., Hedhammar, M., & Söderberg, L. D. (2017), "Ultrastrong and Bioactive Nanostructured Bio-Based Composites", *ACS Nano,* vol. 11 no. 5, pp. 5148-5159.
7. Geng, L., Mittal, N., Zhan, C., Ansari, F., Sharma, P. R., Peng, X., Hsiao, B. S., & Söderberg, L. D. (2018), "Understanding the Mechanistic Behavior of Highly Charged Cellulose Nanofibers in Aqueous Systems", *Macromolecules,* vol. 51 no. 4, pp. 1498-1506.
8. Rosén, T., Brouzet, C., Roth, S. V., Lundell, F., & Söderberg, L. D. (2018), "Three-Dimensional Orientation of Nanofibrils in Axially Symmetric Systems Using Small-Angle X-ray Scattering", *Journal of Physical Chemistry C,* vol. 122 no. 12, pp. 6889-6899.
9. Mittal, N., Ansari, F., Gowda Krishne, V., Brouzet, C., Chen, P., Larsson, P. T., Roth, S. V., Lundell, F., Wågberg, L., Kotov, N. A., & Söderberg, L. D. (2018), "Multiscale Control of Nanocellulose Assembly: Transferring Remarkable Nanoscale Fibril Mechanics to Macroscale Fibers", *ACS Nano,* vol. 12 no. 7, pp. 6378-6388.
10. Ohm, W., Rothkirch, A., Pandit, P. et al. (2018) "Morphological properties of airbrush spray-deposited enzymatic cellulose thin films". *J. Coat Technol Res,* vol. 15, 759–769.
11. Brouzet, C., Mittal, N., Söderberg, L. D., & Lundell, F. (2018), "Size-Dependent Orientational Dynamics of Brownian Nanorods", *ACS Macro Letters,* vol. 7 no. 8, pp. 1022-1027.
12. Brett, C. J., Mittal, N., Ohm, W., Gensch, M., Kreuzer, L. P., Körstgens, V., Månsson, M., Frielinghaus, H., Müller-Buschbaum, P., Söderberg, L. D., & Roth, S. V. (2019), "Water-Induced Structural Rearrangements on the Nanoscale in Ultrathin Nanocellulose Films", *Macromolecules,* vol. 52, no. 12, pp. 4721-4728.
13. Brouzet, C., Mittal, N., Lundell, F., & Söderberg, L. D. (2019), "Characterizing the Orientational and Network Dynamics of Polydisperse Nanofibers on the Nanoscale", *Macromolecules,* vol. 52 no. 6, pp. 2286-2295.
14. Krishne Gowda, V., Brouzet, C., Lefranc, T., Söderberg, L. D., & Lundell, F. (2019), "Effective interfacial tension in flow-focusing of colloidal dispersions: 3-D numerical simulations and experiments", *Journal of Fluid Mechanics,* vol. 876 pp. 1052-1076.
15. Mittal, N., Benselfelt, T., Ansari, F., Gordeyeva, K., Roth, S. V., Wågberg, L., & Söderberg, L. D. (2019), "Ion-Specific Assembly of Strong, Tough and Stiff Biofibers", *Angewandte Chemie Int. Ed.*, vol. 58, no. 51, pp. 18562-18569.