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EDUCATION

- **University of Oslo, Norway**

Cand. real. Degree within Mathematics and Natural Sciences /Physics, 1967 - 1969
Thesis Title: "Polarization Phenomena and Sodium Contamination in MOS-Devices." Advisors: Prof. Tore Olsen and cand. real. Halle Sandmo

- **University of Oslo, Norway**

Cand. Mag. Degree within Mathematics and Natural Sciences, 1963 – 1967

WORK EXPERIENCE

- **2012 – present**

Highlight: Mentor with focus on success for partners.

- Owner and CEO, Sterna Innovation, January 2013 - present
- Professor Emeritus, June 2012 - present

- **2002 – 2012: Vestfold University College, Professor, Horten, Norway**

Highlight: From nothing to Norway's largest and most productive academic microtechnology institution in 10 years by "bottom-up" approach.

- Head of Department, Department of Micro and Nano Systems Technology (IMST), Faculty of Technology and Maritime Sciences, June 2010 – June 2012.
- Director of research, Faculty of Science and Engineering, 2008 – 2010. Lead and coordinate all research and innovation activities in the Faculty of Science and Engineering.
- Head of Department, Institute for Microsystem Technology, 2005 – 2010. Responsibility for leading and coordination the institutes education, research and innovation activities, financing and the strategic work on behalf of the university college. Developed the activity to become the largest within microtechnology in Norway and the first area with a qualified PhD-program at the University College. Initiated and acted as chairman of the board for the triple-helix project "Norwegian Centre of Expertise" (NCE) within Micro- and Nanotechnology on behalf of the regional industry cluster. The cluster was appointed NCE by the Norwegian Government with Vestfold University College as project contractor and coordinator in 2006. Elected chairman of the boards for the innovation company Microtech-Innovation AS and the network organization "Electronic Coast" in 2006 - 2011.
- Full time professor, 2003 – 2012. Developed goals and strategy for strategic area microsystem technology, including master education program, research program, cooperation with national industry and international academic institutions.
- Part time professor (20 %), 2002 – 2003, with responsibility to develop courses within micro-technology for bachelor student and to initiate research projects and cooperation with industry.

- **2003 – 2009: Infineon Technologies SensoNor AS, Horten, Norway**

- Part time senior consultant (20 %), 2003 – 2009. Duties within research, innovation and patenting.

- **1985 – 2003: SensoNor AS, Horten, Norway**
Highlight: MEMS technology with success on the high-volume world markets and the only product “made in Norway” on the planet Mars.
 - Director of research, 2001 – 2003. Managing research projects and technology development activities performed by leading research institutes and universities in Norway and Europe.
 - Director of silicon wafer fabrication, 1998 – 2001, with responsibility for technology development, preproduction activities and volume manufacturing of all sensor elements for the automotive products and for the foundry service business area.
 - Director of technology development, 1985 – 1998. Developed technology for ultra-high stability silicon pressure sensor technology, today manufactured by Memscap AS and used in numerous aircrafts all over the world. This is the only part made in Norway used in space systems on the planet Mars. The sensor is also used in artificial hearths qualified for use in humans. Developed the sensor element for the world’s first high-volume airbag acceleration sensor (1992). Designed the sensor element and developed the pressure sensor technology for the world’s first high-volume tire pressure sensor (TPMS), now manufactured by Infineon Technologies. Designed and developed technology for a high-stability angular-rate sensor (micro-gyro) based on a Swedish patent, today manufactured by Sensoror AS. Developed a generic advanced bulk micromachining process platform, offered under the European Euro-practice manufacturing service with trade name MultiMEMS.
 - Co-founder of SensoNor AS in 1985.

- **1978 - 1985: AS Micro-Electronics (AME) Horten, Norway**
Highlight: Development the only integrated circuit production taking place in Norway.
 - Director for the Component Division, 1980 – 1985, with full business responsibility for thin-film hybrid products, bipolar integrated circuits, silicon photo-detectors and manufacturing of sensor elements for the Sensor Division.
 - Technology development manager, 1978 – 1980, with responsibility for the development and preparation for production of bipolar integrated circuit technology and products.

- **1971 – 1977: Center for Industrial Research, Oslo, Norway (today part of SINTEF)**
Highlight: Start-up of applied research projects resulting in production in Norway.
 - Research manager for the Microelectronics Department, 1973 – 1977, with responsibility for industry-oriented research projects in the areas: hybrid integrated circuits, bipolar integrated circuits, silicon photo-detectors and micro-machined silicon pressure sensors.
 - Scientist, 1971 – 1973; working on developing complementary MOS-technology.

- **1970 – 1971: University of California, Berkeley, California**
 - Visiting scholar, Department of Electrical Engineering and Computer Sciences, working on silicon-gate MOS-transistor design and process technology.

- **1969 – 1970: Center for Industrial Research, Oslo, Norway**
 - Scientist, working on developing of Metal-Oxide-Semiconductor (MOS) technology.

ACADEMIC AND PROFESSIONAL INTERESTS

- Micro-Electro-Mechanical Systems (MEMS)
- Microsystems technologies
- Silicon device physics and process technologies

- 3D integration and packaging of microsystems
- Innovation and commercialization based on micro- and nanotechnologies

SELECTED PUBLICATIONS (5)

Highlight: As of December 2018, Henrik has RG Score 28.17, 13660 reads and 1012 citations registered on Research Gate.

1. Henrik Jakobsen and Daniel Lapadatu: "Building of Silicon Sensors by Micromachining of Bulk Silicon and Anodic Bonding"; Physica Scripta. Vol. T79 (1999), 32 - 41.
2. H. Jakobsen, A. Lapadatu, G. Kittilsland: "Anodic Bonding for MEMS "(INVITED); Electrochemical Society Technical Meeting, San Francisco, September 2, 2001.
3. D. Lapadatu and H. Jakobsen: Chapter 5: "Bulk micromachining" in the book "Sensors for Automotive Applications", Wiley-VCH, 2002.
4. Henrik Jakobsen: "Status report – Microsystem Technology in the Nordic Region"; 11th World Micromachine Summit, Dallas, USA, May 1 – 4, 2005.
5. Frank Niklaus, Christian Vieider and Henrik Jakobsen: "MEMS-based Uncooled Infrared Bolometer Arrays"; SPIE Photonic ASIA Conference, November 11-15, 2007.

INVITED PUBLICATIONS AND PRESENTATIONS

1. Henrik Jakobsen: "Failure Analyses of Semiconductors by using Scanning Electron Microscopes"; Invited paper; SINTOM Seminar; Copenhagen, 16-18 April 1975.
2. Per Ohlckers and Henrik Jakobsen: "Challenges of the Emerging Microsystems Industry"; 3rd Conference on Manufacturing in Hong Kong, December 13-16, 1995.
3. Henrik Jakobsen: "Building of Silicon Sensors by Micromachining of Bulk Silicon and Anodic Bonding"; The 18th Nordic Semiconductor Meeting, Linköping, Sweden 1998.
4. H. Jakobsen, A. Lapadatu, G. Kittilsland: "Anodic Bonding for MEMS "; Electrochemical Society Technical Meeting, San Francisco September 2, 2001.
5. Henrik Jakobsen: "Status report - Microsystem technology in the Nordic Region"; 10th World Micromachine Summit, Grenoble, France, 3 – 5 May 2004.
6. Henrik Jakobsen: "Status report – Microsystem Technology in the Nordic Region"; 11th World Micromachine Summit, Dallas, USA, May 1 – 4, 2005.
7. Henrik Jakobsen: "Microtechnology – the Norwegian perspective"; IMAPS Nordic 2005, September 11 – 15, 2005, Tønsberg, Norway.
8. Frank Niklaus, Christian Vieider and Henrik Jakobsen: "MEMS-based Uncooled Infrared Bolometer Arrays"; SPIE Photonic ASIA Conference, November 11-15, 2007.

TEXTBOOK CHAPTERS

1. D. Lapadatu and H. Jakobsen: Chapter 5: "Bulk micromachining" in a book "Sensors for Automotive Applications", Wiley-VCH (fall 2002).
2. A. Lapadatu and H. Jakobsen: "Handbook of MEMS Materials and Technologies, Part V: Encapsulation of MEMS Components, Chapter 32: Anodic Bonding"; 15 pages; William Andrew Applied Science Publishers, Norwich, NY, October 2008 (ISBN 0815515944)

PUBLICATIONS IN JOURNALS AND PROCEEDINGS

Peer-reviewed journal papers

1. Per Ohlckers, Reidar Holm, Henrik Jakobsen, Terje Kvisterøy, Gjermund Kittilsland, Andre Larsen, Martin Nese, Svein M. Nilsen, Alain Ferber: "An Integrated Resonant Accelerometer Microsystem for Automotive Applications"; Sensors and Actuators A66 (1998), 99-104.
2. Per Ohlckers, Henrik Jakobsen: "Challenges of the Emerging Microsystems Industry"; Microelectronics Journal 00 (1998).
3. Daniel Lapadatu, Gjermund Kittilsland, Martin Nese, Svein M. Nilsen, Henrik Jakobsen: "A Model for the Etch-stop Location on Reverse-biased PN-Junctions"; Sensors and Actuators A66 (1998), 259-267.
4. Henrik Jakobsen and Daniel Lapadatu: "Building of Silicon Sensors by Micromachining of Bulk Silicon and Anodic Bonding"; Physica Scripta. Vol. T79 (1999), 32 - 41.

5. Cosma, H. Jakobsen, R. Puers: "Electrical Characterization of Anodically Bonded Wafers"; *J. Micromech. Microeng.*, No. 8 (1998), 114-117.
6. Cosma Lapadatu, D. De Bruyker, H. Jakobsen, R. Puers: "A new concept for a self-testable pressure sensor based on the bimetal effect"; *Sensors and Actuators* 82 (2000), 69-73.
7. M.M.V. Taklo, P. Storås, K. Schjøberg-Henriksen, H. K. Hasting and H. Jakobsen; "Strong, high-yield and low-temperature thermocompression wafer-level bonding with gold"; *J. Micromech. Microeng.*,
8. K. Schjøberg-Henriksen, E. Poppe, S. Moe, M.W.V. Taklo, D.T. Wang, H. Jakobsen: "Anodic bonding of glass to aluminium"; Workshop on Wafer Bonding for MEMS; Halle, Germany, 10 – 12 October 2004.
9. Tran-Minh, Nhut; Dong, Tao; Su, Qianhua; Yang, Zhaochu; Jakobsen, Henrik and Karlsen, Frank: "Design and optimization of non-clogging counter-flow microconcentrator for enriching epidermoid cervical carcinoma cells." *Biomedical Microdevices*, 2010.
10. Dong, Tao; Su, Qianhua; Yang, Zhaochu; Zhang, Yulong; Egeland, Eirik; Gu, Dan D; Calabrese, Paolo; Karlsen, Frank; Tran-Minh, Nhut; Wang, Kaiying; Jakobsen, Henrik: "A smart fully integrated micromachined separator with soft magnetic micro-pillar arrays for cell isolation." *Journal of Micromechanics and Microengineering*; vol 20, no 10, pp. 1 – 9 (2010).
11. Johannessen, Erik; Krushinskaya, Olga; Solokov, Andrey; Häfliger, Philipp; Hooverwerf, Arno; Hinderling, Christian; Kautio, Kari; Lenkkeri, Jaakko; Strömmer, Esko; Kondratyev, Vasily; Tønnessen, Tor Inge; Jakobsen, Henrik; Zimmer, Even; Akselsen, Bengt: "Toward an Injectable Continuous Osmotic Glucose Sensor." *Journal of Diabetes Science and Technology*; vol. 4, pp 882 – 892 (2010).
12. Xiao, Bin; Dong, Tao; Halvorsen, Einar; Yang, Zhaochu; Zhang, Yulong; Høivik, Nils; Gu, Dan D; Tran-Minh, Nhut; Jakobsen, Henrik: "Integrated micro Pirani gauge based hermetical package monitoring for uncooled Vox bolometer FPAs. *Microsystem Technologies: Micro- and Nanosystems Information Storage and Processing Systems*; Vol 17; pp. 115 – 125 (2011).
13. Guohua Liu, Kaiying Wang, Nils Hoivik and Henrik Jakobsen: "Progress on free-standing and flow-through TiO₂ nanotube membranes"; *Elsevier: Solar Energy Materials & Solar Cells* 98; pp. 24 – 38, March 2012.
14. Dong, Tao; Su, Qianhua; Yang, Zhaochu; Karlsen, Frank; Jakobsen, Henrik; Egeland, Eirik Bentzen; Hjelseth, Snorre: Fully Integrated Micro-separator with Soft-magnetic Micro-pillar Arrays for Filtrating Lymphocytes. *IEEE Engineering in Medicine and Biology Magazine* 2010 p. 6522-6526.
15. Dong, Tao; Su, Qianhua; Yang, Zhaochu; Zhang, Yulong; Egeland, Eirik Bentzen; Gu, Dan D; Calabrese, Paolo; Kapiris, Matteo J; Karlsen, Frank; Tran-Minh, Nhut; Wang, Kaiying; Jakobsen, Henrik: A smart fully integrated micromachined separator with soft magnetic micro-pillar arrays for cell isolation. *Journal of Micromechanics and Microengineering* 2010 ;Volume 20.(11) p. –
16. Johannessen, Erik; Krushinskaya, Olga; Sokolov, Andrey; Häfliger, Philipp; Hoogerwerf, Arno; Hinderling, Christian; Kautio, Kari; Lenkkeri, Jaakko; Strömmer, Esko; Kondratyev, Vasily; Tønnessen, Tor Inge; Mollnes, Tom Eirik; Jakobsen, Henrik; Zimmer, Even; Akselsen, Bengt: Toward an injectable continuous osmotic glucose sensor. *Journal of Diabetes Science and Technology* 2010; Volume 4.(4) p. 882-892.
17. Dong, Tao; Yang, Zhaochu; Su, Qianhua; Tran-Minh, Nhut; Egeland, Eirik Bentzen; Karlsen, Frank; Zhang, Yulong; Kapiris, Matteo J; Jakobsen, Henrik: Integratable non-clogging microconcentrator based on counter-flow principle for continuous enrichment of CaSki cells sample. *Microfluidics and Nanofluidics* 2011; Volume 10.(4) p. 855-865.
18. Krushinskaya, Olga Grigorievna; Tønnessen, Tor Inge; Jakobsen, Henrik; Johannessen, Erik: The assessment of potentially interfering metabolites and dietary components in blood using an osmotic glucose sensor based on the concanavalin A-dextran affinity assay. *Biosensors & bioelectronics* 2011; Volume 28.(1) p. 195-203.
19. Krushinskaya, Olga Grigorievna; Tønnessen, Tor Inge; Jakobsen, Henrik; Johannessen, Erik A: Characterization of nanoporous membranes for implementation in an osmotic glucose sensor based on the concanavalin A–dextran affinity assay. *Journal of Membrane Science* 2011; Volume 376.(1-2) p. 153-161.
20. Liu, Guohua; Hoivik, Nils; Wang, Kaiying; Jakobsen, Henrik: A voltage-dependent investigation on detachment process for free-standing crystalline TiO₂ nanotube membranes. *Journal of Materials Science* 2011; Volume 46.(24) p. 7931-7935.
21. Tran-Minh, Nhut; Dong, Tao; Su, Qianhua; Yang, Zhaochu; Jakobsen, Henrik; Karlsen, Frank: Design and optimization of non-clogging counter-flow microconcentrator for enriching epidermoid cervical carcinoma cells. *Biomedical microdevices (Print)* 2011; Volume 13.(1) p. 179-190.
22. Xiao, Bin; Dong, Tao; Halvorsen, Einar; Yang, Zhaochu; Zhang, Yulong; Hoivik, Nils; Gu, Dandan; Tran-Minh, Nhut; Jakobsen, Henrik: Integrated micro Pirani gauge based hermetical package

- monitoring for uncooled VO(x) bolometer FPAs. *Microsystem Technologies: Micro- and Nanosystems Information Storage and Processing Systems 2011*; Volume 17.(1) p. 115-125.
23. Liu, Guohua; Hoivik, Nils; Wang, Kaiying; Jakobsen, Henrik: Engineering TiO₂ nanomaterials for CO₂ conversion/solar fuels. *Solar Energy Materials and Solar Cells 2012*; Volume 105. p. 53-68.
 24. Liu, Guohua; Hoivik, Nils; Wang, Kaiying; Jakobsen, Henrik: Growth and Morphology of Highly Ordered TiO₂ Nanotube Arrays via Electrochemical Anodization. *ECS Transactions 2012*; Volume 41.(30) p. 19-27.
 25. Liu, Guohua; Wang, Kaiying; Hoivik, Nils; Jakobsen, Henrik: Progress on free-standing and flow-through TiO₂ nanotube membranes. *Solar Energy Materials and Solar Cells 2012*; Volume 98. p. 24-38.
 26. Liu, Guohua; Hoivik, Nils; Wang, Xiaoming; (...); Jakobsen, Henrik: «Photoconductive, free-standing crystallized TiO₂ nanotube membranes.»; *Electrochimica Acta*, Mar 2013.
 27. K. Wang, G. Liu, N. Hoivik, H. Jakobsen: «Cheminform Abstract: Electrochemical Engineering of Hollow Nanoarchitectures: Puls/Step Anodization (Si, Al, Ti) and their Applications»; *Chemical Society Reviews*, Dec 2013.
 28. K. Wang, G. Liu, N. Hoivik, H. Jakobsen: «Water Pollutants: Titanium Dioxide Nanotubes for Photocatalytic Degradation»; Jun 2014.
 29. Å. Sandvand, E. Halvorsen, K. E. Aasmundtveit, H. Jakob.; *Journal of Microelectromechanical Systems*, Jan 2017. sen: «Influence of Glass-Frit Material Distribution on the Performance of Precision Piezoresistive MEMS Pressure-Sensors.»; *IEEE Transactions on Components, Packaging and Manufacturing Technology*; Oct 2015.
 30. K. Wang, G. Ouyang, X. Chen, H. Jakobsen: "Engineering Electroactive Dielectric Elastomers for Miniature Electromechanical Transducers."; Dec 2016.
 31. G. Liu, K. Du, J. Xu, H. Jakobsen: «Plasmon-dominated photoelectrodes for solar water splitting.»; *Journal of Materials Chemistry A*, Jan 2017.
 32. Å. Sandvand, E. Halvorsen, K. E. Aasmundtveit, H. Jakobsen: «Identification and Elimination of Hygro-Thermo-Mechanical Stress-Effects in High-Precision MEMS Pressure Sensor.»; *Journal of Microelectromechanical Systems*, Jan 2017.
 33. Å. Sandvand, E. Halvorsen, H. Jakobsen: «In Situ Observation of Metal Properties in a Piezoresistive Pressure Sensor»; *Journal of Microelectromechanical Systems*, Sept 2017.

International conference papers

1. Henrik Jakobsen: "Building of Mechanical Transducers using a Universal Pre-Assembled Piezo-Resistive Silicon Sensor element"; *Proceedings from Test+Transducers*, Wembley, England, October 86.
2. Henrik Jakobsen, Olav Solgaard: "Bulk Resistors for Stable Pressure Sensors"; *Proceedings 12-th Nordic Semiconductor Meeting*, Jevnaker, Norway, June 8-11 1986.
3. A. Hanneborg, M. Nese, H. Jakobsen and R. Holm: "Silicon-to-Thin Film Bonding", *Proceedings from MicroMechanics Europe (MME) 1992*, Leuven, Belgium, June 1-2, 1992. *J. of Micromechanics and Microengineering*, 2 (1992), 117-121.
4. Reidar Holm, Terje Kvisterøy, Henrik Jakobsen, Anders Hanneborg, Per Ohlckers: "Stability and Common Mode Sensitivity of Piezoresistive Silicon Pressure Sensors made by different Mounting Methods"; *Digest of Technical Papers International Conference on Solid-State Sensors and Actuators*; San-Francisco 1991, 978-981.
5. Henrik Jakobsen: "Sensor Foundries and Production of Sensors at SensoNor as"; *Proceedings from the Sixth Micromechanics Europe Workshop*, Copenhagen, Denmark, 3-5 September 1995.
6. Henrik Jakobsen, Reidar Holm and Terje Kvisterøy: "Resonant Accelerometers for Airbag Systems featuring Intrinsic Continues Self-test"; *Proceedings from Conference on Microsystems – the Key to Automotive Safety Concepts*, Berlin, 7th December, 1995.
7. Henrik Jakobsen: "Sensor Foundries and Production of Sensors at SensoNor as", *J. Micromech. Microeng.* 6 (1996), 193-196.
8. Martin Nese, Henrik Jakobsen, Gjermund Kittilsland, Svein M. Nilsen, Per Ohlckers and Anders Hanneborg: "Technologies for Silicon Micromechanical Sensors for Automotive Applications – A Development Collaboration between SINTEF and SensoNor"; *Micro Structure Workshop 1996*, Uppsala, Sweden.
9. Per Ohlckers and Henrik Jakobsen: "The Emerging Industry of Micromachined Devices"; Invited presentation at *SEMICON-Europa 97*, April 16, 1997.

10. A. Cosma, H. Jakobsen, R. Puers: "Electrical Characterization of Anodically Bonded Wafers"; Technical Digest MME'97, 8th Micromechanics Europe Workshop, Southampton, U.K., 31 August - 2 September 1997, 1461-1464.
11. A. Cosma Lapadatu, H. Jakobsen, B. Puers: "The Effects of the Anodic Bonding on the Electrical Characteristics of the p-n junctions"; Tech. Digest, 10th International Conference on Solid-State Sensors and Actuators (Transducers'99), Sendai, Japan, June 7-10 (1999).
12. Kari Schjølberg-Henriksen, Marion Dlugokinski, Adriana C. Lapadatu, Geir Uri Jensen, Anders Hanneborg, Terje Finstad, and Henrik Jakobsen: "Charging effects in SiO₂ during anodic bonding measured on MOS-capacitors situated outside the bonding area"; presented at the conference EUROSENSORS XIV, Copenhagen August 27 – 29, 2000.
13. Henrik Jakobsen: "About SensoNor AS – The long Way from R&D to volume production"; Proceedings, World Micromachine Summit, Grenoble 2004.
14. T. Kvisterøy, H. Jakobsen et. al: "Far infrared low-cost uncooled bolometer for automotive use"; Proceedings from Advanced Microsystem for Automotive Applications"; Berlin, April, 2007.
15. Frank Niklaus, Christian Vieider and Henrik Jakobsen: "MEMS-based Uncooled Infrared Bolometer Arrays"; SPIE Photonix ASIA Conference, November 11-15, 2007.
16. Wei Sun, Xuyuan Chen, Henrik Jakobsen, "THREE DIMENSIONAL MICRO POLYPYRROLE ELECTRODE FOR SUPERCAPACITOR", 7th Microtechnology Innovation Event, 6-7 May 2008, Gothenburg, Sweden.
17. Ruilin Zhen, Xuyuan Chen, Henrik Jakobsen, "Microfabricated Folded Waveguide Slow Wave Structure for Millimeter Wave Traveling-wave Tubes", 7th Microtechnology Innovation Event, 6-7 May 2008, Gothenburg, Sweden.
18. Krushinitskaya, O., Hafliker, P., Vinsand, T., Tønnessen, T. I., Jakobsen, H., Johannessen, E.A.: "Osmotic Glucose Sensor for Continuous Measurements in Vivo", MicroTAS 2009 International Conference on Miniaturized Systems for Chemistry and Life Sciences Jeju, Korea, 2009
19. Krushinitskaya, O., Hafliker, P., Vinsand, T., Tønnessen, T. I., Jakobsen, H., Johannessen, E.A.: "Novel Osmotic Sensor for a Continuous Implantable Blood-Sugar Reader", pHealth 2009, Oslo, Norway, pp. 44-45.
20. Krushinitskaya, O., Vinsand, T., Tønnessen, T. I., Jakobsen, H., Johannessen, E.A.: "Osmotic Sensor for Biomedical Research"; IMAPS 2009 International Microelectronics and Packaging Society, Tønsberg, Norway, 2009, pp. 13-16.
21. Krushinitskaya, Olga; Tenstad, Ellen; Vinsand, Tormod; Tønnessen, Tor Inge; Jakobsen, Henrik; Johannessen, Erik: Osmotic glucose sensor for continuous measurements in vivo. I: Proceedings of MicroTAS 2009, The 13th International Conference on Miniaturized Systems for Chemistry and Life Sciences, Jeju, South Korea, 1–5 November 2009. San Diego: The Chemical and Biological Microsystems Society 2009; ISBN 978-0-9798064-2-1. p. 1654-1655.
22. Krushinitskaya, Olga; Häfliger, Philipp; Vinsand, Tormod; Tønnessen, Tor Inge; Jakobsen, Henrik; Johannessen, Erik A: Novel Osmotic Sensor for a Continuous Implantable Blood-Sugar Reader. I: 6th International Workshop on Wearable Micro and Nano Technologies for Personalized Health (pHealth). IEEE conference proceedings 2009; ISBN 978-1-4244-5252-1. p. 25-28.
23. Dong, Tao; Yang, Zhaochu; Egeland, Eirik Bentzen; Karlsen, Frank; Jakobsen, Henrik: Clogging failure in microfilter for blood cell separation and its novel improvements. I: 16th IEEE International Symposium on the Physical and Failure Analysis of Integrated Circuits, 2009. IPFA 2009. IEEE conference proceedings 2009 p. 759-763.
24. Wang, Kaiying; Aasmundstveit, Knut E; Jakobsen, Henrik: "Surface evolution and bonding properties of electroplated Au/Sn/Au." 2nd Electronics System Integration Technology Conference (ESTC) (Sept. 2009).
25. Dong, Tao; Su, Qianhua; Yang, Zhaochu; Karlsen, Frank; Jakobsen, Henrik; Egeland, Eirik Bentzen; Hjelseth, Snorre: Fully integrated micro-separator with soft-magnetic micro-pillar arrays for filtrating lymphocytes. IEEE Engineering in Medicine and Biology Society. Conference Proceedings 2010 p. 6522-6526.
26. Krushinitskaya, Olga Grigorievna; Tønnessen, Tor Inge; Jakobsen, Henrik; Johannessen, Erik: Membrane dynamics of an implantable osmotic glucose sensor. 10th Annual Diabetes Technology Meeting (DTM2010); 2010-11-11 - 2010-11-13.
27. Tao Dong, Zhaochu Yang, Qianhua Su, Nhut Minh Tran, Eirik Bentzen Egeland, Frank Karlsen, Yulong Zhang, Matteo Joseph Kapiris and Henrik Jakobsen: "Integratable non-clogging microconcentrator based on counter-flow principle for continuous enrichment of CaSki cells sample." Microfluidics and Nanofluidics; Vol. 10, No. 5, pp. 855 – 865 (2011).

28. Liu, Guohua; Hoivik, Nils; Wang, Kaiying; Jakobsen, Henrik: Free-standing TiO₂ Nanotube Membranes from Electrochemical Anodization. I: 2011 11th IEEE International Conference on Nanotechnology (NANO 2011): Proceedings. IEEE conference proceedings 2011 ISBN 978-1-4577-1515-0. p. 1011-1015.
29. Liu, Guohua; Hoivik, Nils; Wang, Kaiying; Jakobsen, Henrik: Facile fabrication of self-organized, free-standing titanium dioxide nanotube membranes. I: MME 2011: Proceedings of the 22nd Micromechanics and microsystems technology Europe workshop: 19-22 June 2011 Tønsberg, Norway. Tønsberg: Vestfold University College 2011 ISBN 978-82-7860-224-9. p. 214-217.
30. Liu, Guohua; Hoivik, Nils; Wang, Kaiying; Jakobsen, Henrik: Reducing solvent evaporation rates for the detachment of anodic TiO₂ nanotubular membranes. Materials Research Society Symposium Proceedings 2012; Volume 1442.
31. Å. Sandvand, E. Halvorsen, K. E. Aasmundtveit, H. Jakobsen: «Influence of Sensor-Packaging Hermiticity-Level on Long-Term Drift for a Piezoresistive MEMS Pressure-Sensor.» Sep 2015.

OTHER PUBLICATIONS AND CONTRIBUTIONS

1. Henrik Jakobsen: "Complementary MOS-Circuits – Fabrication Technology." Technical report to the Norwegian Research Council, 1974 (in Norwegian).
2. Terje Henriksen, Henrik Jakobsen: "Complementary MOS-Circuits. Design and Fabrication of Test Circuit." Technical report to the Norwegian Research Council, 1974 (in Norwegian).
3. Henrik Jakobsen: "Microelectronics – Small components give great opportunities", the Blindern-Conference '92, Oslo.
4. Henrik Jakobsen, Geir Schmidt, Lisbeth Quale og Sverre Horntvedt: "Mikroteknologi i Vestfold", Konferanse om Høgskole og Samfunn i Samhandling, Tønsberg, 2005.
5. Henrik Jakobsen: "Om utviklingen av en mikroteknologi industri i Norge. Historisk tilbakeblikk – Hva har vi lært? Teknologidagene, Kongsberg, 2006.
6. Jakobsen, Henrik: De små tingene som skaper store muligheter, forandringer og forbedringer for oss alle. 2007-09-21; HIVE.
7. Jakobsen, Henrik: Kompetanse som drivkraft i næringsutvikling: Lokale utfordringer og tiltak for å øke kompetanse. 2007-10-04; HIVE.
8. Jakobsen, Henrik: Mikro- og nanoteknologi i Vestfold: En satsing både på akademisk forskning og industriell utnyttelse. 2007-09-14; HIVE.
9. Jakobsen, Henrik: Mikrosystemsatsningen muliggjør at det minste blir det største. 2007-06-26; HIVE
10. Jakobsen, Henrik: Satsing på mikro- og nanoteknologi i Institutt for Mikrosystemteknologi (IMST): Presentasjon for Stortingets næringskomité. 2007-10-10; HIVE.
11. Jakobsen, Henrik: Strategisk satsing på Mikro/Nano ved Høgskolen i Vestfold og Norwegian Centre of Expertise Microsystems. 2007-03-26; HIVE.
12. Jakobsen, Henrik: Strategisk satsing på mikrosystemteknologi ved Høgskolen i Vestfold og Norwegian Centre of Expertise Microsystems: Presentasjon for Odd Fellow Losje nr.40 VERN. 2007-05-30; HIVE.
13. Jakobsen, Henrik; Hansen, Stein Ivar: Mikroteknologimiljøet i Vestfold: En langsiktig satsing på industriell verdiskaping og høyteknologiske arbeidsplasser. 2007-01-12; HIVE.
14. Jakobsen, Henrik: Veien fra tradisjonsrik ingeniørutdanning mot senter for næringsutvikling. 2008-11-21; HIVE.
15. Jakobsen, Henrik: Hva er mikro- og nanoteknologi? 2009-12-01, HIVE.
16. Jakobsen, Henrik: Mikro og nano er en del av alles hverdag - men hva er det? 2009-09-27, HIVE
17. Jakobsen, Henrik: Muligheter med bruk av mikro- og nanoteknologi. 2009-08-27, HIVE.
18. Jakobsen, Henrik: Måling av atmosfæretrykket på planeten Mars med mikrosensor fra Vestfold. 2009-09-27; HIVE.
19. Jakobsen, Henrik: Virksomheten ved Institutt for Mikro- og Nano System Teknologi (IMST). 2009-09-HIVE.
20. Jakobsen, Henrik: Virksomheten ved Institutt for Mikro- og Nano System Teknologi (IMST). 2009-12-10; HIVE.
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PATENTS

1. Terje Kvisterøy and Henrik Jakobsen: "Arrangement for Encasing a Functional Device and a Process for the production of the same"; EP92909972.9.
 2. Henrik Jakobsen and Terje Kvisterøy: "Sealed Cavity Arrangement"; US Patent 5591679.
 3. Terje Kvisterøy and Henrik Jakobsen: "Force Sensor"; Approved US Patent Application 08/848301.
 4. Daniel Lapadatu, Terje Kvisterøy, Henrik Jakobsen: "Micromechanical Device"; US 6684699.
 5. Terje Kvisterøy and Henrik Jakobsen: "Method for Manufacturing of Angular Rate Sensors"; US 6319729 B1.
 6. Henrik Jakobsen: "Multi-layer Device"; EP Patent Application No. 03851626.2.
 7. Henrik Jakobsen: "Method for manufacturing thin asymmetric springs"; EP 06119036.9, US 11/539762, Japan 2006-241839.
 8. Henrik Jakobsen: "Robust capacitive pressure sensor"; US2005076719.
 9. Henrik Jakobsen: "Micromechanical support structure with built-in stress sensor". EP 07101491.4 and US 12/015175
 10. Tao Dong, Frank Karlsen, Henrik Jakobsen et. al.: "Improved Cross Flow and Counter Flow Fluid Processing Device"; GB Application NP108QQ; July 31, 2009.
 11. Terje Kvisterøy, Henrik Jakobsen: Vacuum sensor.
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RESEARCH PROJECTS/GRANTS

- STEGS – Innovasjonsprosjekt i næringslivet - NFR BIA ES583757 (2017 – 2020)
 - 4P - Precision Piezoresistive Pressure Platform"; Innovasjonsprosjekt i næringslivet - NFR BIA ES507447 (2013 – 2017)
 - "Newpack", partly funded by the Norwegian Research Council through KMB-project 153047 from the ICT area of the BIA-program.
 - "Mikrosystem for hjerteovervåking", partly funded by the Norwegian Research Council through the strategic high-school project (SHP) 156318.
 - "Norwegian Centre of Expertise – Microsystems" (2006 - 2015), funding from the national NCE-program through Innovation Norway, Vestfold Fylkeskommune, Horten kommune and industry.
 - Partnership project with University of California, Berkeley within Engineering, Microsystems and Nanotechnology, funded by Partnership program in Higher Education Norway - North America (2008-2011) through project NNA-2008/10004.
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RECENT PhD STUDENTS

- 2003 - 2009 PhD – Christopher Grinde; "Micromechanical inertia sensors with capacitive readout".
 - 2007 - 2012 PhD – Olga Krushnitskaya; "Tissue interaction of synthetic nanoporous membranes for use in a BIOMEMS implantable glucose sensor".
 - 2013 - 2017 PhD – Åsmund Sandvand: "High-Stability Piezoresistive Pressure Sensors".
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PROFESSIONAL ACTIVITIES

- Chairman of the national scientific advisory board for monolithic integrated circuits (1973-1976).
- Member of an ad-hoc group to evaluate national co-operation within the electronic components (1973-1974). The work lead to the starting of EKF (Electronics Industry's Component Forum, later called Electronics Industry's Design Forum, now part of Abelia Innovation).
- Member of a working group that re-initiated the Electronic Coast Cooperation in Vestfold (1996 – 1998).
- Participated in starting up the European Network for Excellency within Microsystems (NEXUS) in 1994/95.
- Member of the Scientific Committee for the international conference "Advanced Microsystems for Automotive Applications." (1996 - 2009).
- Member of the Conference Technical Committee for the conference "SENSOR", a conference taking place every second year in Nuremberg, Germany (2000 - 2006).
- Member of the expert team for the area Natural Sciences and Technology within the Norwegian Research Council (1997 – 2000).

- Member of the working group that initiated the Norwegian Microtechnology Center (NMC) (1998 - 2004) and the close cooperation between SINTEF, University of Oslo, NTNU, SensoNor and HiVe.
- Chairman for a national work group who has written advice on funding policy for the Research Council's Support of Research within Electronics and Electrical Power (1998).
- One of the initiators to found the innovation company Microtech-Innovation (MTI) in Horten (2001).
- Leader for the Nordic delegation to the World Microsystem Summit (MMS) Conference 2004 in Grenoble and 2005 in Dallas.
- Member of the scientific board at HiVe (2005 - 2007).
- Chairman of the board for Microtech-Innovation AS (2006 - 10).
- Chairman of the board for Norwegian Centre of Expertise – Micro and nanotechnology (2006 - 2011).
- Chairman of the board for the regional network Electronic-Coast in Vestfold (2006 - 2011).