
Senior R&D Scientist/Engineer in Micronozzle Technologies

Location: Copenhagen, Denmark.
Full-time on-site position (no remote work)
Travel: Expected <20% of work time
Reports to: Head of Technology R&D, CTO
Starting date: ASAP

Would you like to help us revolutionise the development and manufacturing of electronic, photonics, and optics industries? Welcome to ATLANT 3D – we would like to invite you for an amazing journey where you will be a part of a team working towards disrupting 60 years of micro and nanofabrication technologies and systems. We offer you a **once-in-a-lifetime experience**. What we develop is unique, and we are incredibly excited to make a difference.

We are looking for a senior R&D Scientist/Engineer in Microfluidic Technology for our R&D team to lead the development of novel micronozzles for direct atomic layer processing/patterning (DALP) technology for processing a multiplicity of materials delivered in liquid, gas, and a combination of both for its processing in our unique Nanofabricator systems.

You will join a highly skilled and dedicated team of engineers and scientists and become a key participant in developing innovative solutions within nanotechnology. Cross-functional collaboration is the key to our success. We believe in combining theory and simulation with hands-on prototyping and testing.

What is the job about

The job requires ongoing technological innovation to meet the ever-evolving feature miniaturization of the applications in the markets served by the company's technology. The key areas of expertise include but are not limited to microfluid dynamics design and simulations, thermal management, atomic layer deposition process and material, plasma generation, and related prototyping.

If you are our favorite candidate, you have expert knowledge in more than one of these areas. You have sufficient knowledge and expertise to understand all involved system technologies and effectively work with your peers. You will be responsible for developing, tracking, and maintaining the development of micronozzles, while creating project plans and executing projects on time and within budget. This pivot role in the R&D department will also actively participate in other R&D projects in a support role and collaboration with our academic and industrial partners and customers.

You will also have a solid tie-in to Engineering and the Product Development Process and Applications development to ensure that your R&D results can be transitioned for implementation and are sufficiently complete and documented.



What will be your responsibilities?

As R&D Scientist/Engineer in ATLANT 3D, we expect you to be a driver of innovation, drawing on input from the CTO, the Head of Technology R&D, augmented by the market road map defined by the teams under the CPO to expand the technology leadership of ATLANT 3D. As such, this also includes the drive toward enhancing the company's IP portfolio as defined by the company's IP executive committee.

Your overall responsibilities:

- Develop and implement plans for R&D of simultaneous microfluidic material delivery and evacuation to single and multiple nozzles technologies aimed at microfabrication with micron range resolution.
- Design, develop and test micronozzle and fluidic systems.
- Analyze complex data to find trends, provide solutions, and troubleshoot existin micronozzle designs and optimize their design.
- Develop and improve CAD design.
- Ensure that the developing plans are executed according to the agreed objectives, budgets, and timelines. Risk analysis and possible alternatives must be included in each program with clear criteria for success, sense of urgency must be shown in the project execution.
- Work with the Engineering and ApplicationsProduct Management teams to integrate the developed technology into product and applications development plans.
- Participation with Product Engineering in the evaluation and selection of critical component suppliers.
- Submit innovative ideas for patent or trade secret applications.
- Support Applications and Engineering teams in the factory as required by identified customer issues to meet company objectives.
- Provide guidance and mentorship to other colleagues and junior specialists.
- Collaborate with Engineering and Application teams to integrate R&D state of the art activities immediately into equipment product and applications development with clear goals and objectives and successfully transfer R&D project results with adequate documentation.
- Develop analytical and manufacturing methodologies for quality control.
- Work with vendors to procure and install new micronozzle development and characterisation equipment.
- Lead external R&D engagements with academic and industrial partners.
- Design DOEs, analyse the data, and report the key results as reports, process development documents, summaries of results and present during meetings.

Talent & professional capabilities

- You have a passion for technical leadership and innovation and are the world expert in microfluidics, MEMS or relevant fields and processes.
- M.Sc. or PhD in Applied Physics, Physics, Aerospace, Mechanical Engineering, Micro and Nanotechnology, Chemical Engineering or relevant fields.
- 7+ years of industrial work experience with micronozzle MEMS or/and microfluidics systems with the aptitude to manage the activities necessary to develop key technology components used in processing devices with the company's systems.



- Strong experience in designing, simulating, and implementing fluid dynamics, both liquid and gas, in corrosive and temperature-controlled environments is a must.
- Strong experience with the design, analysis and implementation of microfluidic systems.
- Strong experience with design and simulation tools for CFD, thermal transfer, and chemical reactions.
- Strong experience in mechanical 3D design in CAD systems such as SolidWorks is required.
- Experience with atmospheric plasma systems and ALD technologies is an advantage.
- Experience with laser micromachining and silicon microfabrication is an advantage.
- Experience and knowledge of ALD technology are advantages.
- Experience in the Design of Experiments (3+ years).
- Understanding of safety requirements in the lab.
- High general knowledge of relevant technologies and ability to communicate clearly with technology experts in their fields of expertise.
- Results driven to create a sense of urgency for R&D projects to arrive at conclusions.
- Ability to work with various international partners, suppliers, customers, and associated travels.
- Proficiency with computer systems and data analysis
- Full proficiency in verbal and written English and MS Office 365 tools is necessary.

People skills & competencies

- You are easily self-motivated and proactive in collecting inputs and addressing issues timely.
- You are results-driven, eager to create a sense of urgency for R&D projects and make optimal use of available resources to produce R&D results.
- You can work independently as well as a part of the team, manage multiple projects simultaneously and drive innovation.
- A well-developed judgment and strong decision-making skills allow you to work with other team members independently to produce results.
- A result-driven mindset and the ability to make optimal use of available resources to produce R&D results.
An open-minded mindset and creative as well as critical thinking.
- Excellent communication skills and you feel comfortable engaging with stakeholders across all functions and cultures – both internally and externally.
- You are self-driven and have chosen never to become complacent in life but aim to develop yourself and the people around you every day. You are also a natural challenger, not afraid to raise your opinion and challenge the status quo.
- You know success combines hard work, solid priorities and high quality.
- You know that working as a team and supporting a solid feedback culture will get us all where we want to go – faster!



We offer you the following:

- The opportunity to become part of a company poised to revolutionise the development and manufacturing of the electronic, photonics, and optics industry.
- An opportunity to have influence and make a significant contribution to a young and fast-growing company.
- International team collaboration and a great place to work where we like to be together
- Opportunities and support to advance your personal and career.
- Working with state-of-the-art, most advanced technologies and highly innovative customer projects.
- Interactions with international partners, suppliers, customers, and associated travel.

ATLANT 3D Nanosystems is a unique workplace driven by exceptional, innovative people. Each team member is unique in our company and contributes to building an international, intelligent, diverse and positive work culture nurtured by a sharp vision and authentic engagement. By joining us, you will have the opportunity to enhance your skills and develop and drive impact. As an agile organisation, we aim to empower our employees with flexibility, transparent management, and inspiring learning. And then we love and support you when you develop into a new role on your career path.

We love passionate and motivated people (like you!) to help us bring innovative solutions, drive impact and be a part of a unique, exciting growth journey.

Ready to start an exciting journey at ATLANT 3D Nanosystems? Be curious and read about us [here](#). If you want to know more about the position, please get in touch with the Head of People & Culture, Susie Sandberg, by [email](#) or mobile at +45 4290 9097.

