

R&D Simulation Engineer / Scientist

About Topsil GlobalWafers A/S

Topsil GlobalWafers A/S is a global leader in highpurity silicon production, specializing in Float Zone (FZ) crystal growth for advanced power electronics. Our crystals are used in demanding applications such as renewable energy, electric transportation, medical equipment, and highefficiency industrial systems—where reliability and material quality are essential.

Our mission is to push the boundaries of ultrapure silicon through precision engineering, innovative research, and close collaboration with customers and partners worldwide. At Topsil, we believe that technological progress happens when skilled people are empowered to explore, experiment, and grow.

About the Role

We are expanding our Research & Development team and seeking a Simulation Engineer / Scientist. The successful candidate will join a team of simulation experts within the R&D organization and contribute significantly to our flagship project on developing nextgeneration FZ crystals for the global power electronics industry.

Key Responsibilities

- You will work on the development of new and improved models which can simulate FZ crystal growth to gain insights into the processes and underlying physics.
- You will perform simulations to help design systems / processes for FZ crystal growth, process improvements, and technology innovation projects.
- You will work closely with R&D test engineers / scientists to design and evaluate FZ experiments to be used in the validation of simulation models.
- You will collaborate closely with universities / research institutions on various projects related to simulation work.
- Prepare reports, presentations, and technical recommendations based on your findings.

About you

You enjoy developing simulation models to gain insight into the process, machine parts and motivated by seeing how your simulations / designs work in real world environments. You are a team player, you take initiative when needed and work well with others -both independently and collaboratively. You like continuous learning, reading scientific papers and applying new knowledge to your work.

We would love to hear from you if you have:

- MSc or PhD in engineering, physics, applied mathematics or similar.
- Advanced knowledge of COMSOL is highly preferred. Knowledge of other simulation software is an advantage.
- We carry out Multiphysics simulations in the areas of Electromagnetism, Heat Transfer, Solid Mechanics and Fluid Mechanics. Successful candidate is expected to have deep knowledge of Multiphysics simulations in at least two of these domains. Proven experience in solid mechanics is a plus.
- Experience of validating simulation results against test data or analytical solutions.
- Understanding of the governing equations, Finite Element Method (FEM), numerical methods, and underlying math.
- Skilled in geometry preparation & mesh generation.
- Knowledge of using optimization tools in simulations & using GPUs is an advantage.
- Experience in FZ crystal growth, or related processes is an advantage but not a

requirement.

- We reach our common goals and solve problems together. We value colleagues who share knowledge, support one another, and contribute to a constructive team environment.

What Topsil Can Offer You

- A flexible and trust-based work environment
- Professional and personal development opportunities
- A flat, collaborative organization
- A social and inclusive community with activities such as a running club, a yoga club and events organized by our staff association
- Pension at PFA with a company paid amount of 8,9% and a self-paid amount of 4%.
- Health insurance – also offered by PFA

How to Apply

We will conduct interviews regularly so if this role sounds like a good match for your experience and interests, please send us a cover letter, CV, and any other relevant documents via Jobindex as soon as possible. Please briefly explain relevant simulation work you carried out in the cover letter.

If you have any questions, you can reach out to Yalin Kaptan, Simulation Team Leader at yak@gw-topsil.com

We look forward to hearing from you!

Topsil is an innovative manufacturing company and a leading supplier of ultra-pure silicon to the global semiconductor industry. The company has business partners worldwide, and also collaborates internationally with universities and private organizations on research and development.

Topsil's ultra-pure silicon is primarily used for the most demanding applications, and our products are developed based on years of experience and significant investments in new technology, facilities, and equipment. The products are used in, among other things, electric vehicles, high-speed trains, the power grid, wind turbines and other green technologies, as well as for more specialized applications within, for example, the medical and detector industries.

There are exceptionally high-quality requirements for our products and production processes, and we work, among other things, in accordance with the IATF 16949:2016 Automotive Quality Standard and are ISO-certified in environment, energy, and occupational health and safety.

We are now more than 240 employees, all gathered at our site in Frederikssund, where we keep production running 24/7. With us, you will have daily contact with a broad diversity of people and professions. We appreciate a good laugh and have an informal tone, with respect for the individual.

You can read more about us at www.topsil.com and on our

LinkedIn: <https://www.linkedin.com/company/topsil/>