



Smoltek newsletter, June 2021

Hello,

Here are the highlights of this newsletter:

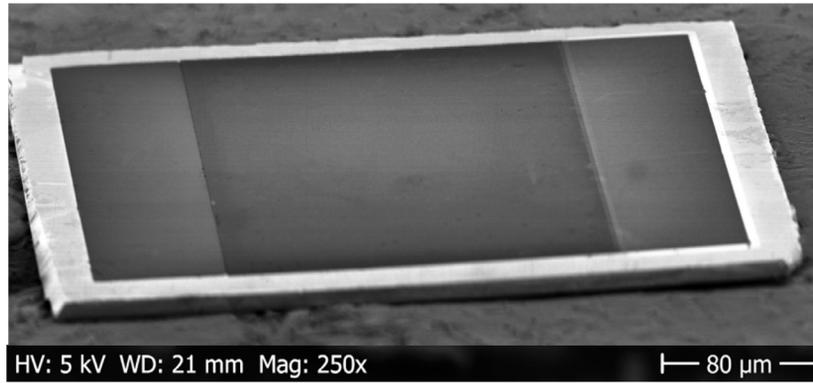
- Evaluation license project update
- CNF-MIM technical progress
- Strengthening the organization
- Interconnect technology proof-of-concept
- Whitepaper: Smoltek Electrolyzer Technology
- Smoltek aims to make electrolyzers more efficient
- 3 new patents granted
- Company Report 2020 released

Evaluation license project update

The second evaluation project that Smoltek signed in 2020 and extended in March this year is progressing. The Smoltek R&D team is fully preoccupied with the ongoing technology evaluation project trials, and will continue to be so over the summer and well until the end of August. The technical work as well as the business discussions with the customer is in progress according to the set schedule. However, the COVID travel restrictions are challenging as all meetings are still made remotely. Still, we are managing this to the best of our ability in close cooperation with the customer.

CNF-MIM technical progress

One crucial aspect in the Semiconductor industry for a commercial product based on Smoltek's CNF-MIM capacitor technology is the reliability. Important parameters are; The survival rate in various harsh environments and the capacitor's expected lifetime. At the recent virtual ECTC 2021 conference Smoltek presented initial results on this topic. We are now pleased to announce that the Smoltek R&D team has improved the reliability of the CNF-MIM technology further. The reliability under biasing and temperature test conditions was tested within the framework of our collaboration with the customer of the ongoing evaluation license project. The result is now significantly better, as the failure rate was reduced by 51%.



HV: 5 kV WD: 21 mm Mag: 250x

80 μm

Prototype of the thinnest capacitor in the world

Strengthening the organization

As Smoltek has intensified its internal work to industrialize the CNF-MIM technology Anders Stänkelström has been contracted as new project manager for identifying manufacturers in the supply chain for cost-effective production of CNF-MIM capacitors in high volumes.



Anders Stänkelström, Project Manager Sourcing

Interconnect technology proof-of-concept

Smoltek has successfully delivered samples of vertically connect stacked chips as part of a paid proof-of-concept project related to the Interconnect application (SmolINCO™). The result is now being analyzed by the customer, before the next step will be decided, in cooperation with Smoltek.

Whitepaper: Smoltek Electrolyzer Technology

By using carbon nanofibers in water electrolyzers we see a possibility to increase the active catalyst area in membrane electrolyzers which also can decrease the required catalyst load. The result: More effective electrolyzers at a reduced cost.

Read the whitepaper: <https://www.smoltek.com/smoltek-innovation>



Introducing Smoltek Electrolyzer Technology (pdf)

Smoltek aims to make electrolyzers more efficient

The subsidiary Smoltek Innovation's focus for the coming months is to get in contact with partners for making a proof-of-concept on the electrolyzer technology.

Press release: https://news.cision.com/smoltek-nanotech-holding-ab/smoltek-aims-to-make-today-s-electrolyzers-for-fossil-free-hydrogen-production-more-efficient_c3374016

3 new patents granted

Smoltek's IP-portfolio is the foundation of our licensing business model, and the key for us in the dialogue with potential customers. Therefore, we are very pleased to see that it has now expanded with 3 recently granted patents to comprise 68 granted patents in total.

Read about the patents: <https://www.smoltek.com/post/smoltek-has-been-granted-three-new-patents>

Company Report 2020 released

The company report is a condensed English version of the company's annual report for 2020. Link to company report: <https://www.smoltek.com/about-smoltek>

As regards regulatory company reports, the interim report for April-June 2021 will be published on July 16th.

Industry highlights

Technology news worldwide produces vast numbers of news on a daily basis. Here are some interesting articles that we find insightful and hopefully give you a glance of the general development.

Semiconductor: Chip shortage solutions

<https://www.bloomberg.com/opinion/articles/2021-06-22/how-global-foundries-may-go-from-forgotten-to-savior-of-the-chip-shortage>

Energy conversion, Nanotechnology can improve electrolyzer efficiency:

<https://www.h2-view.com/story/smolteks-nanotechnology-set-to-improve-the-efficiency-of-pem-electrolyzers/>

Summer holidays with Covid-19 restrictions

The summer has hit the Swedish Westcoast giving us clear skies and warm temperatures. This matches well with the upcoming vacation period. However, different mutations of the Covid-19 disease are still in play, which means that keeping distance will be an important part of this summer as well. Let's continue to stay safe together by supporting vaccination schemes and obeying rules and recommendations as provided by the authorities.

Stay tuned for more news on our website, newsfeed updates and social media postings.

/Regards,



Marie Landfors, Interim CEO

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