



Press release Smoltek Nanotech Holding AB (publ)

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This press release is an English version of the previously published Swedish version, which has interpretive precedence.

Smoltek's CNF-MIM Capacitors Demonstrate 1,000x Lower Current Leakage in a New Life Test

Smoltek Nanotech Holding AB (publ) ("Smoltek" or the "Company") announces that the company's CNF-MIM capacitors demonstrate excellent stability in a new 1,000-hour life test at 85°C under applied 2 volts. No degradations were observed, and the capacitors exhibited more than 1,000 times lower current leakage compared to the previous life test, thus strengthening Smoltek's position in ongoing dialogues with industrial players and partners.

Ultra-low leakage increases reliability by reducing continuous stress and heat generation during operation. In large-scale AI data centers as well as HPC applications, this leads to more stable long-term performance, fewer field failures, and most importantly, less heat generation and power consumption – factors that our customers consider critical.

This follow-up test brings the CNF-MIM capacitors closer to commercialization, building on the previous reliability results announced in [November 2025](#). The test results further strengthen confidence in the long-term stability of the technology under realistic operating conditions.

Compared to the previous test, the new capacitors demonstrate more than 1,000x lower current leakage while maintaining stability throughout the 1,000-hour test. This corresponds to an impressive insulation resistance of 1,000 GΩ at the rated voltage.

"In November 2025, we reported that our CNF-MIM capacitors showed minimal changes during a 1,000-hour reliability test, with one capacitor failing early in the test. This new 1,000-hour operational life test on a subsequent batch marks a major step forward, demonstrating exceptionally stable behavior with zero failures - most notably with leakage remaining in the picoampere range, while capacitance and ESR remain unchanged," says Farzan Ghavanini, CTO at Smoltek.

In parallel with the internal test, Smoltek has started an external operational life test of the CNF-MIM capacitors, expecting the final outcome within the next two weeks (mid-February 2026). The external test results are expected to strengthen the company's ongoing discussions with potential industrial partners.

Test results in brief

In the test, the capacitors were continuously operated for 1,000 hours at 85°C while a constant voltage of 2 volts was applied – conditions designed to simulate real-world use in demanding chip environments. The capacitors were characterized before and after completion of the operational life test.

- Capacitance density: 170 nF/mm² (no change after test)
- Equivalent Series Resistance (ESR): 1500 mΩ (no change after test)
- Insulation resistance: 1000 GΩ corresponding to 2 pA leakage current at 2 V DC (no change after the test)

For further information

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Smoltek Nanotech Holding is a deeptech company that provides a technology that enables the production of conductive nanostructures on various materials. The company's nanostructure manufacturing technology can be used in several industrial sectors. Customers are found in the global process industry and semiconductors. The products that the company develops are used in equipment to produce fossil-free hydrogen and in semiconductors to further miniaturize microchips. The company protects its unique carbon nanotechnology through an extensive patent portfolio. Smoltek's share is listed on the Spotlight Stock Market under the ticker SMOL. Smoltek is a development company and forward-looking statements regarding time to market, production volume and price levels should be interpreted as forecasts and not commitments.