

Press Release

Heraeus Electronics Hosts ALL2GaN Event Showcasing Advances in High-Efficiency Power Electronics

April 2, 2024 – Heraeus Electronics is proud to announce that it will host an upcoming ALL2GaN event from April 9-10, 2024, at its facilities in Hanau. This event will focus on the groundbreaking developments in high-efficiency power electronics, particularly focusing on the capabilities of GaN chips to revolutionize the industry with higher efficiency, power density, and smaller sizes.

Heraeus Electronics is proud to be part of the EU-funded research project “ALL2GaN” (Affordable smart GaN IC solutions for greener applications). This initiative involves 45 partners and aims for a 30% energy efficiency improvement with GaN compared to silicon, contributing to a reduction of 218 million tonnes of CO₂ in support of the Green Deal and EU’s 2050 climate neutrality goal.



GaN chips present unique challenges and opportunities for packaging technologies, including significant reductions in bond pad size. At the ALL2GaN event, industry professionals and experts will come together to explore these advancements and their implications. Heraeus Electronics will showcase its latest innovations tailored to meet the demands of miniaturization and high power density required by GaN chips.

During the event, Heraeus Electronics will highlight its Fine Pitch Sinter pastes and an adapted Die Top System/Bonding wires, designed to optimize the performance of GaN chips. The company has already made significant progress in processing GaN semiconductors, with promising results indicating superior shear forces and enhanced robustness with pressure sinter pastes.

Preliminary test results with finer Cu and Al wires have been promising, and prototype samples with small Die Top Systems have been successfully produced. Heraeus Electronics is actively collaborating with customers to refine layout designs, ensuring optimal performance and reliability.

Michael Jörger, Global Head of Business Line Power Electronic Materials, emphasizes the importance of ALL2GaN for Heraeus Electronics, stating, “The participation in such joint projects is one pillar of success in order to develop and introduce innovative materials for power electronics faster and even more successfully.”

For further details and media inquiries about the ALL2GaN event and Heraeus Electronics' role in advancing GaN technology, please contact Manuel Fischer (manuel.fischer@heraeus.com), Press Contact for Heraeus Electronics. Discover more about the ALL2GaN project at the official project website: <https://www.all2gan.eu/home>

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For additional information on Heraeus Electronics and their contributions to semiconductor technology, visit www.heraeus-electronics.com.

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About Heraeus

The Heraeus Group is a broadly diversified and globally leading family-owned technology company, headquartered in Hanau, Germany. The company's roots go back to a family pharmacy started in 1660. Today, Heraeus bundles diverse activities in the Business Platforms Metals and Recycling, Healthcare, Semiconductor and Electronics as well as Industrials. Customers benefit from innovative technologies and solutions based on broad materials expertise and technological leadership. In the 2022 financial year, the group generated revenues of €29.1 billion (US\$30.6 billion*) with approximately 17,200 employees in 40 countries. Heraeus is one of the top 10 family-owned companies in Germany and holds a leading position in its global markets.

(* calculated with 2022 average exchange rate, 1€ = 1.0530 US\$)

About Heraeus Electronics

Heraeus Electronics is a leading manufacturer of materials for the assembly and packaging of devices in the electronics industry. The company develops material solutions for the automotive, power electronics and advanced semiconductor packaging market and offers its customers a broad product portfolio - from materials and material systems to services.

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