

Will Gallium Nitride Substrates Replace Silicon in Electronic/Power Devices

Where Can You Buy Gallium Nitride?

SOUTH BOSTON, MASSACHUSETTS, UNITED STATES, February 19, 2020 /EINPresswire.com/ -- Gallium Nitride (GaN) has been around for a few decades. Recently the need to conserve power that comes from a wall socket or to increase the range of electric cars has pushed GaN devices to the industry forefront with the promise to replace Silicon in the near future.

In some instances, the future is already here. In certain applications, a GaN system is less expensive to operate than Silicon devices in electric cars. For example, less GaN devices are required to do the same job as Silicon devices. GaN devices are also smaller than Silicon based semiconductor devices and run cooler.

Dr. Martin Kuball from the University of Bristol states that if GaN devices are used throughout a system, say an electric car, then the cost is less as you would not require as many silicon devices.

And exciting real-world application is in power cords. Currently, your laptop workstation requires an expensive power supply to convert AC to DC current.

But shortly Dr. Kuball states:

"So it will get to the point where you just have a cable going straight from the outlet in your laptop, and you need basically this gallium nitride electronics to make that happen."

Dr. Martin believes that Gallium Nitride Semiconductor Devices will also make the following more efficient:

Solar Cells
Power Transmission
Electric Vehicle Endurance
Replace Current Power Supply
LEDs
Lasers

So, when will we see more Gallium Nitride Devices?

"The main obstacle for widespread adoption is basically people just need to get used to it. It's a different component. You wouldn't take your normal circuit you put in there, you have a silicon component in there. You would normally not just take a gallium nitride component in there and replace that silicon component, so you have to replace or optimize the whole electronics around. But people tend to be conservative. They know it works and they have to start rebuilding the circuits a little bit to make full advantage of this. That's happening right now, but that takes some time."

Dr. Martin Kuball University of Bristol Where can you buy GaN on Sapphire, Silicon Carbide and Sapphire? Visit https://order.universitywafer.com

Christian Baker UniversityWafer, Inc. +1 6174131577 email us here Visit us on social media: Facebook Twitter LinkedIn

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