

Master's thesis proposal

## Design and characterization of highly efficient GaN-based power converters

Fraunhofer IAF is one of the world's leading research institutions in the field of III-V semiconductors and synthetic diamond developing technologies for use in communication, energy, mobility, industry and medicine. In our microelectronics department we assign a master thesis in the field of GaN power electronics.

## The master's thesis includes:

- Literature research.
- Design and construction of a demonstrator to characterize the energy efficiency of GaN-based power converters.
- Characterization of IAF GaN power transistors and integrated circuits for converter use.
- Circuit simulation and computer-aided design of power converters (board design).
- Measurement characterization of the efficiency at different operating conditions.



## What we offer:

A thesis at Fraunhofer IAF allows you to apply the knowlege you have acquired during your studies to specific research projects. With us, you can work scientifically and gain project experience at the same time. We offer modern laboratory equipment, supervision by experienced scientists and a variety of opportunities for further education.

## Send your application to:

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