

Ga vacancies in GaN: challenge for theorists and experimentalists

Despite large spread of GaN-based devices in 1990s, several fundamental questions about GaN properties remain unanswered. One of them is a role or even a presence of Ga vacancies in GaN. According to the first-principle calculations, the Ga vacancy formation energy is too high for their presence in significant concentrations. However, this is in contradiction with experiments. In this work, new findings obtained by variable energy positron annihilation spectroscopy are shown and discussed.

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