GALLIUM NITRATE NUCLEATION LAYERS AND THEIR ROLE IN THE GROWTH AND PROPERTIES OF GaN

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Nitrate semiconductors have gained popularity because of their good electrical properties and ability to work at high temperatures. The influence of the nucleation layers on the properties of semiconductors has been widely studied. I focus on the effect the nucleation layers of GaN have on its properties. The nucleation layer and film evaluation on the substrate is determined by a difference in substance and epilayer lattice constants. These differences are responsible for defects and dislocations making it hard to obtain acceptable device performance in targeted applications. I use the research and current finding of scientist[1,2,3] to explain the growth and investigation process of GaN.
GaN is and ongoing research material and the effects of the nucleation layer is just one of its interesting aspects.

References

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