

## Theoretical Investigations on Optical Properties of GaFeMnN Quaternary Compound

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**Abstract :** Using first principles calculations based on the density functional theory and local spin density approximation, we investigate optical properties of GaFeMnN quaternary compound. Results show that optical properties confirm that GaFeMnN can be a good candidate in the design of thin film solar cells in the visible and ultraviolet parts of the spectrum, and a good sensor in the infrared

**Keywords :** GaN, optical absorption, semi-metallic, dielectric function

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