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Trimer Defects as Single Photon Emitters in Hexagonal Boron Nitride

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Resumen

So far one of the most widely accepted point defects, associated with the emission of single photons in hexagonal boron nitride consists of three adjacent subtitutional C atoms, C_N-C_B-C_N, both the emission wavelength and the phononic replicas shows a perfect agreement between theory and experimental data.[1]

In this poster, we will review the basic properties of that color center, where some C atoms are acceptors-like, and others are donor-like. Then we will explore different types of trimer-like defects, beyond the paradigm of the donor-acceptor systems. This work is based on density functional calculations and simple models.

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Referencias

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