First principles simulations of amorphous GeSe compounds for memory selectors

Researchers:

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Idioma Indefinido

Descrição:

Proyecto asignado a través de la Red Española de Supercomputación [2].

The project will develop structural models of amorphous GeSe, a glassy semiconductor which is being used in the development of switching memories to be used in the context of neuromorphic computing. We will use First-Principles, Density Functional Theory methods to obtain models of the structure of these amorphous materials, of which little is known experimentally. These structural models are an imperative requisite for further studies of the electronic properties of these materials, which will allow us to gain undernstanding on how to tune their composition (via doping) and structure (via preparation conditios) to optimize their performance in memory devices. The work is part of the EU H2020 project INTERSECT [3].

Ligações

[1] https://icn2.cat/
[2] https://www.res.es/
[3] http://intersect-project.eu