



## **Título: Prediction of a Large Local Magnetic Anisotropy in Permalloy**

### **Autores e afiliações:**

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### **Resumo:**

We investigated the microscopic origin of the vanishingly low magnetic anisotropy of Permalloy by first principles calculations, and relating the orbital moment anisotropy and local magnetic anisotropy.

We found that individual atoms in the alloy can have anisotropy energy at the same order of magnitude than bcc Fe or fcc Ni. Thus, the vanishingly small MAE would be the result of a proper configurational average."