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Investigation of the Stability and Spintronic Properties of NbrhgeX (X= Cr, Co, Mn, Fe, Ni) Using Density Functional Theory

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Abstract : The compound NbRhGe has been predicted to be a semiconductor with excellent mechanical properties. It is an indirect band gap material. The potential of NbRhGe for non-volatile data storage via element addition is being studied using the Density Functional Theory (DFT). Preliminary results on the electronic and magnetic properties are suggestive for their application in spintronic.

Keywords : half-metals, Heusler compound, semiconductor, spintronic
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