

***Ab initio* insights on the effect of embedding lanthanide atoms on nitrogenated holey doped graphene (g-C₂N)**

Cecil Naphtaly Moro Ouma,^{*a} Kingsley Onyebuchi Obodo^b, Moritz Braun^b and George Odhiambo Amolo^c

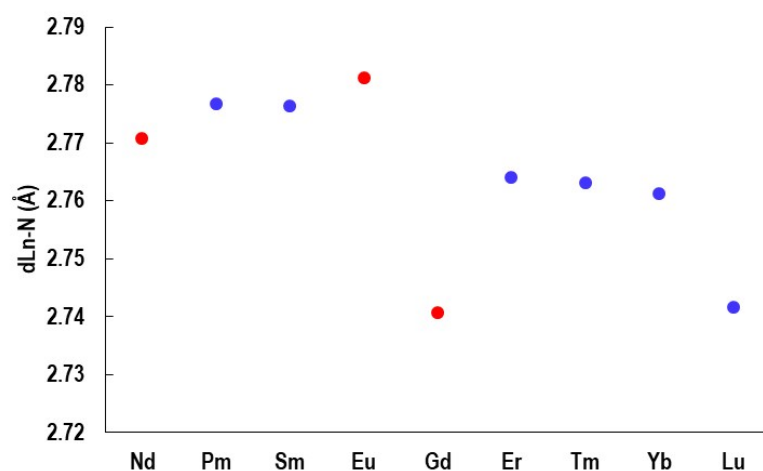
^a HySA Infrastructure Centre of Competence, Faculty of Engineering, North-West University (NWU), P. Bag X6001, Potchefstroom, 2520, South Africa.

^{*}E-mail: Moro.Ouma@nwu.ac.za, moronaphtaly84@gmail.com.

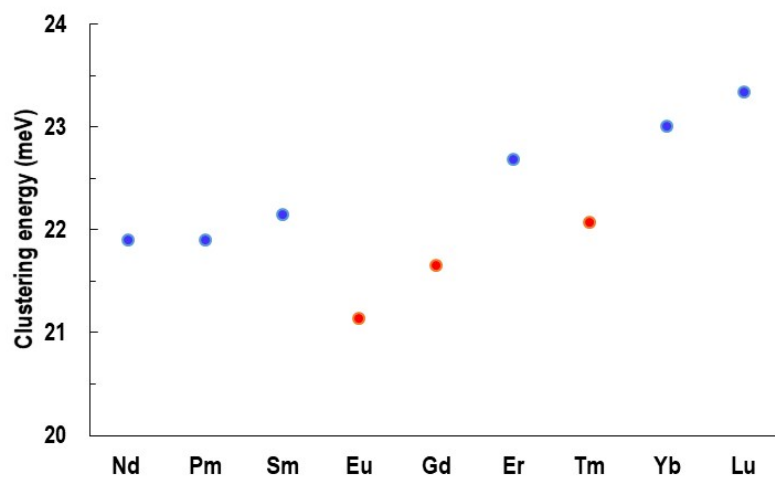
^b Physics Department, University of South Africa, P.O. Box 392, 0003 Pretoria, South Africa.

^c Department of Physics and Space Science, The Technical University of Kenya, P.O. Box 52428-00200 Nairobi, Kenya.

Supplementary Material



Supplementary Figure 1: Calculated lanthanide-nitrogen distance



Supplementary Figure 2: Calculated clustering energy