

Editor's Comments

The authors give no indication with regard to the motivation of their work. There are many computer calculations of the electronic structure of carbon allotropes. Why did these authors undertake a new one? Do their results differ from others' results, do their results agree?

The ground state energies should be given per molecule, 0% error is not professional.

Author's feedback

The motivation behind this work simply lies in the use of an all electron/full potential computer code FHI-aims. Other numerous computer calculations exist, but to the best of our knowledge none uses an all electron full potential code that uses numeric atom-centered orbitals to compute for Carbon basic allotropes. Therefore, we undertake a new one in order to re-investigate the electronic structure of these allotropes as well as to check the accuracy and efficiency of FHI-aims in computing the electronic properties of solids.

Well, our results differ from other results with a little difference. Hence, our results agree with other results. For example, we got 5.58 eV for E_g of diamond while experimental and other computer work reported 5.5 and 5.44 eV respectively. In the case of fullerenes we reported an entirely different result from what is obtainable in the literature. We explained the possible reason for the discrepancy.

For the ground state energies per atom, we have full details of the energies for each structure in separate manuscript. We are planning to send it for publication, so we can't use it here in order to avoid repetition. We hereby reported the bulk ground state energies in this paper. 0% error has now been rectified.