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Electronic properties of carbon nanodisks and nanocones ANDREA LATGE, Instituto de Fisica, UFF, Niteroi-RJ, Brazil, PABLO ULLOA, MONICA PACHECO, Departamento de Fisica, UTFSM, Valparaiso, Chile, LUIZ EDUARDO OLIVEIRA, Instituto de Fisica, UNICAMP, Campinas-SP, Brazil — The electronic properties of graphene nanodisks and nanocones are calculated following a tight-binding approach. The total density of states of both structures are found to be quite similar when a large number of atoms is considered, including the peak at the Fermi energy associated with the contribution of the border atoms. We have also calculated, for both systems, the local density of states which highlight the differences of the electronic structures due to the particularities of the spatial symmetry of the nanodisks and nanocones. Moreover, the electronic properties are throroughly discussed via the analysis of the joint density of states and absorption spectra of the nanostructures.

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