

ANALOG OF THE DAVYDOV SPLITTING  
IN CARBON GRAPHITE-LIKE STRUCTURES

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S u m m a r y

The brief analysis of the origin of Davydov splitting (DS) of phonon, electron, *etc.* spectra is presented. The problem how to increase the DS value is still important. So, in addition to molecular crystals, the layered crystals are perspective candidates. In particular, the bilayer graphenes (BG) are suitable structures for that. The calculation of the values of analogous DS in the nonstationary dipole approximation (electron exchange model) demonstrates the giant electron band splitting for all  $k$  of the Brillouin zone. The experimental results for distorted multicrystal ultrathin carbon layers demonstrate the new possibilities for increasing this splitting.