

Supplementary Material

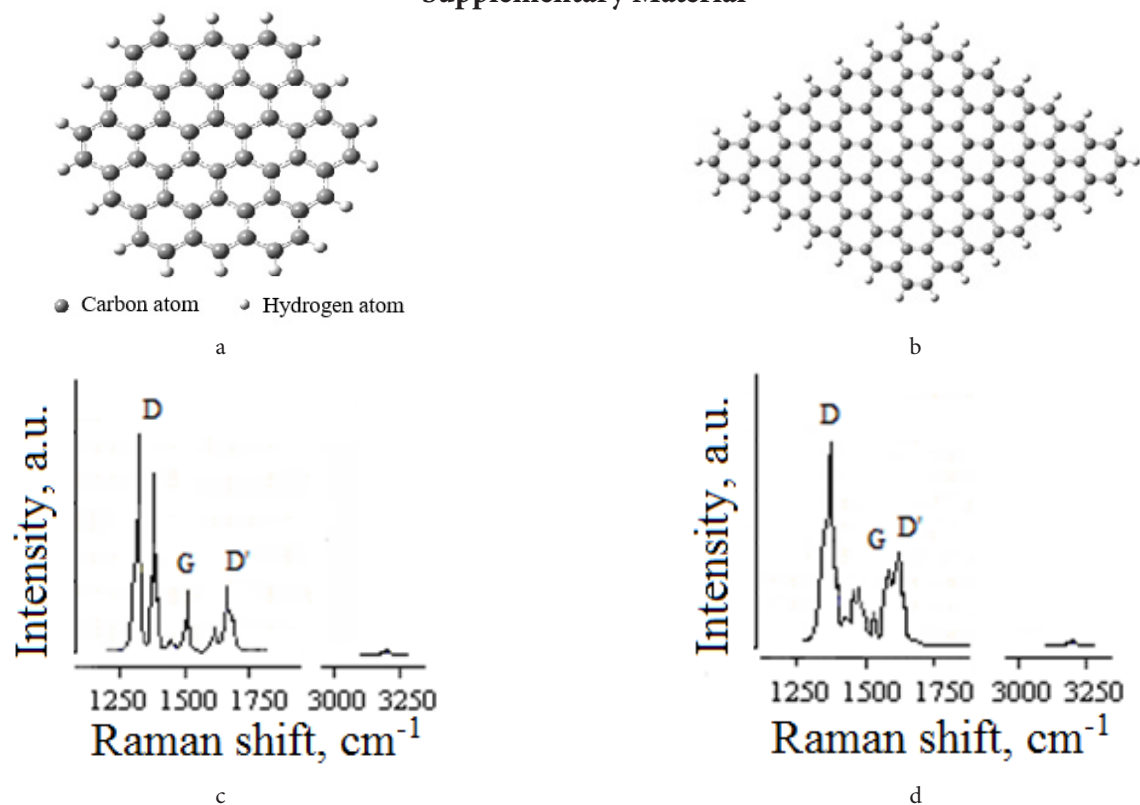


Fig. S1. Molecular models of graphene sheet in the form of hexagon (a) and rhombus (b). Their Raman spectra: hexagon (c) and rhombus (d).

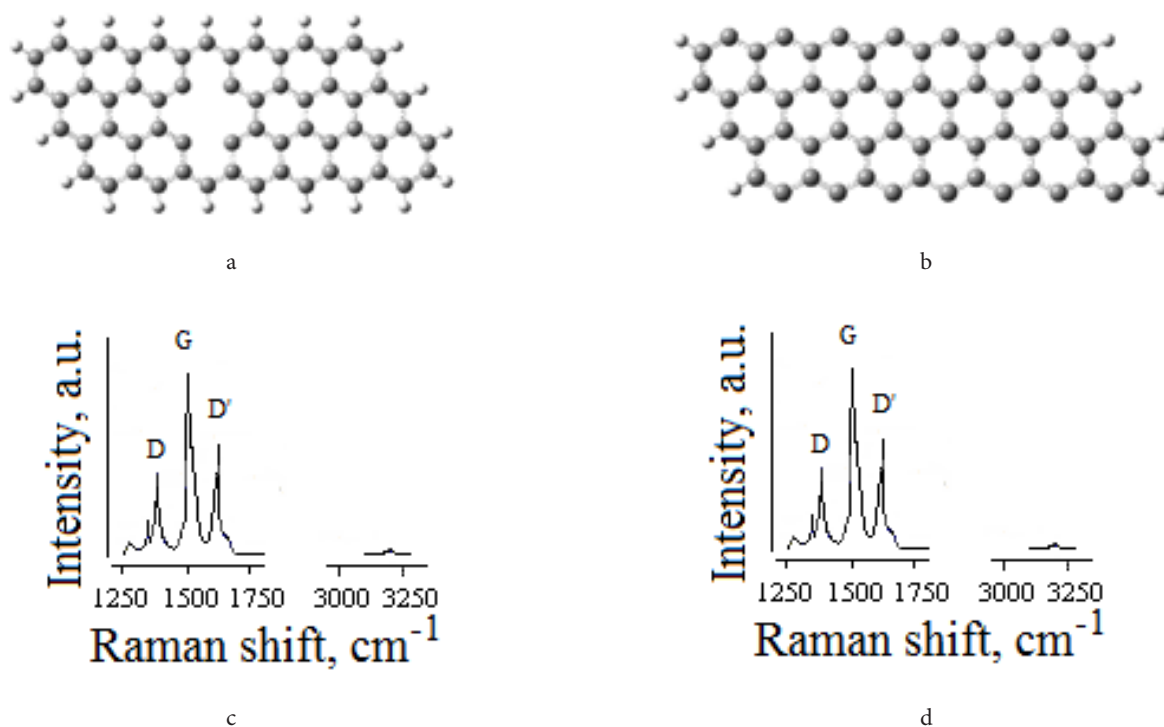


Fig. S2. Molecular models of graphene sheet with vacancy defect inside the graphene sheet (a) and the boundary defect due to the absence of hydrogen atoms (b). Their Raman spectra: defect inside the graphene sheet (c) and without hydrogen atoms at two borders (d).