Electronic properties of defected zigzag nanoribbons with reconstructed edges in the uniform magnetic field

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The electronic structure of the carbon nanostructures was investigated for a lot of forms: plain graphene, graphene nanotubes, graphitic nanocone, graphitic wormhole and graphene nanoribbons. Furthermore, some additional defects were considered: spin-orbit interaction and magnetic field. In the case of graphene nanoribbons, a wide spectrum of variants can be investigated with various properties. The magnetic field can significantly modify these properties. The resulting electronic structure shows similarities with fractal structures.