

عنوان مقاله:

The effect of edge passivation on the stability and magnetic properties of  $\beta$ 12borophene nanoribbon

محل انتشار:

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خلاصه مقاله:

We investigate the stability, magnetic and electronic features of pristine zigzag borophene nanoribbons (ZBNRs) and those edge-passivated by H and N atoms. The calculations were performed using density functional theory approach. The results show that the stability of the nanoribbon increases by passivating the edges. The magnetic features of borophene nanoribbon are affected by the hanging bond of the edges. Hydrogenation can remove the magnetism on the edge, but the passivation by N atoms can increase the magnetic properties. Based on the obtained results, we suggest that N-passivated ZBNRs are promising candidates in nanospintronic devices

کلمات کلیدی:

.Transport properties, Nitrogenpassivated, BoropheneNanoribbon, Spintronic

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