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Title:Edge surface modes in magnetically biased chemically doped graphene strips

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Abstract: The characteristics of surface modes along magnetically biased chemically doped graphene strips at terahertz frequencies are investigated. Both edge and bulk modes exist, with power densities concentrated near the edges and in the middle of the strip, respectively. It is shown that placing a perfect electric conductor plate near one of the strip edges shorts the modes propagating along this edge. This results in strong non-reciprocity, which may be used for the realization of non-reciprocal phase shifters.

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