

Abstract Submitted
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Effects of disorder in the biased graphene bilayer JOHAN NILSSON, ANTONIO CASTRO NETO, Boston University — We discuss the effects of disorder on the peculiar electronic properties of a biased graphene bilayer, which is a semiconductor that has the property that its band-gap can be controlled externally by the field effect. We focus on the low-energy region inside of and near the band-gap and have studied the properties of bound states as well as possible effects due to a finite density of impurities such as impurity band formation and band gap renormalization.

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