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Spin transport studies in encapsulated CVD graphene AHMET AVSAR, JUN YOU TAN, YUDA HO, GAVIN KOON, BARBAROS OEZYILMAZ, Department of Physics, National University of Singapore — Spin transport studies in exfoliated graphene on SiO2/Si substrates have shown spin relaxation times that are orders of magnitude shorter than the theoretical predictions. Similar to the charge transport case, the underlying substrate is expected to be the limiting factor. The recent work Zomer, P. J. et al. [1] shows that spin transport over lengths up to 20um is possible in high mobility exfoliated graphene devices on boron nitride (BN) substrates. Here we discuss our initial attempts to repeat such spin transport experiments with CVD graphene on BN substrates. The effect of encapsulation of such devices with an extra BN layer will be also discussed. [1] Zomer, P. J.; Guimaraes, M. H. D.; Tombros, N.; van Wees, B. J. ArXiv:1209.1999, 2012

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