Abstract Submitted
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Study of magnetotransport across the neutrality point in CVD graphene[1] RAMESH G. MANI, Georgia State University, Atlanta, GA 30303 — Hall effect compensation and a residual resistivity $\rho_{xx} \approx h/4e^2$ are experimentally examined over the p↔n transition about the nominal Dirac point in CVD graphene. The observed characteristics are reproduced in a model with a parabolic distribution $f(V_N)$ of neutrality potentials, V_N, and simultaneous electron- and hole- conduction. The results suggest that, broadly about the gate-induced n ↔ p transition, charge transport is characterized by domain confined ambipolar currents, which leads to compensation in the global Hall effect and the observed residual resistivity.

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