

Abstract Submitted
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Using graphene to track the conductivity of C_{60} CLAUDIA OJEDA-ARISTIZABAL, SEITA ONISHI, HAIDER RASOOL, CELESTE CARRUTH, ALEX ZETTL, UC Berkeley — C_{60} exhibits superconductivity when intercalated with alkali metals [1,2]. This intercalation originates charge doping as well as a modification of the lattice constant, giving rise to an increased density of states at the Fermi energy of C_{60} . Here we study the change of the electronic transport in C_{60} by charge doping alone. We deposit C_{60} on a graphene device that has two metallic electrodes and a back gate. By measuring the conductance of graphene, we track any changes in the conductance of C_{60} , connected in parallel to graphene. We will show preliminary transport data that demonstrates charge transfer into C_{60} .

[1] A. F. Hebard, M.J. Rosseinsky, R. C. Haddon, D. W. Murphy, S. H. Glarum, T.T. M. Palstra, A. P. Ramirez and A. R. Kortan. Nature 350, 600 (1991).

[2] R. M. Fleming, A.P. Ramirez, M.J. Rosseinsky, D. W. Murphy, R.C. Haddon, S. M. Zahurak and A. V. Makhija. Nature 352, 787 (1991).

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