

Abstract Submitted  
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**Proximity induced supercurrent in multilayer graphene** AKINOBU KANDA, HIDENORI GOTO, SHO TANAKA, YUKITOSHI NAGAI, University of Tsukuba and CREST-JST, YOUTI OOTUKA, University of Tsukuba, SHUNSUKE ODAKA, Tokyo Institute of Technology, AIST and CREST-JST, HISAO MIYAZAKI, KAZUHITO TSUKAGOSHI, AIST and CREST-JST — We report experimental study on gate-dependent superconducting proximity effect in multilayer graphene. In our sample, multilayer graphene (MLG), obtained by the micromechanical cleavage of Kish graphite, is placed on a  $\text{SiO}_2/\text{p}^+\text{-Si}$  substrate, and two superconducting (Ti/Al) electrodes are connected to the top of the MLG. Dependence of the critical supercurrent on MLG length and temperature will be discussed.

Akinobu Kanda  
University of Tsukuba

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