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Metal nanoparticle-graphene superstructures as electrodes for solar cells[1] ANNA ZANIEWSKI, MARIA SCHRIVER, GLORIA LEE, A. ZETTL, Dept. of Physics, UC Berkeley — We present metal nanoparticle and graphene superstructures as a potential electrode for solar cells. We show the effect of various metallic nanoparticles on the work function, sheet resistance, and optical properties of graphene layers. The geometries studied include nanoparticles on single layer graphene, and embedded in a graphene sandwich. We discuss the application of these electrodes to organic and silicon solar cells.

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