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Multi-Barrier Electron Tunneling Effects in Bilayer and Gapped Graphene DIPENDRA DAHAL, Hunter College, CUNY, GODFREY GUMBS, Hunter College, CUNY and Donostia International Physics Center (DIPC), ANDRII IUROV, University of New Mexico and Hunter College, CUNY — A detailed study has been made of electron tunneling through a square potential barrier in bilayer, gapped graphene and the relatively new material silicone. The investigation has covered dressed electron states by circularly polarized light of electrons in bilayer graphene for various angles of incidence and through a periodic sequence of potential barriers as well as a quasiperiodic arrangement. The spin degenerate states of silicone may be lifted by a perpendicular electric field. We report spin-dependent tunneling in silicene.

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