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Electronic Transport in Exfoliated Bismuth Selenide[1] ANDREW BESTWICK, JAMES WILLIAMS, PATRICK GALLAGHER, DAVID GOLDHABER-GORDON, JAMES ANALYTIS, IAN FISHER, Stanford University — Recent theoretical and experimental work has identified bismuth selenide as a promising candidate for studies of three-dimensional topological insulators due to its large bulk semiconducting gap crossed by topological Dirac surface states. We report on the fabrication and measurement of mesoscale exfoliated bismuth selenide devices, including the effects of electric-field-effect gating and magnetic field on transport and possible signatures of topological states. We will also discuss fabrication strategies to mitigate surface disorder and doping

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