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Studies of single layer FeSe nanoribbons on $SrTiO_3$[1] ZHUOZHI GE, CHENHUI YAN, DANIEL AGTERBERG, MICHAEL WEINERT, Univ of Wisconsin, Milwaukee, LIAN LI, West Virginia University — Nanoribbons of single layer FeSe are grown on $SrTiO_3$ substrates by molecular beam epitaxy, and their topographic and electronic properties studied by in situ scanning tunneling microscopy/spectroscopy. Systematic tunneling spectroscopy investigation carried out at 6K shows a superconducting gap of 20 meV for ribbons larger than 5 nm. Furthermore, edge states are also detected at the edges of these ribbons, suggesting the coexistence of topological and superconducting states in single layer FeSe/ $SrTiO_3$.

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