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Scalable chemical vapor deposition of single- and few-layer graphene LEWIS GOMEZ DE ARCO, YI ZHANG, AKSHAY KUMAR, CHONGWU ZHOU, University of Southern California — We report the implementation of a simple and scalable method to prepare single and few-layer graphene films by chemical vapour deposition. Micro Raman spectroscopy analysis of the synthesized films revealed the presence of single and few-layer graphene domains throughout the substrate. Synthesized graphene films were recovered on Si/SiO_2 substrates where back-gated FETs were fabricated. Four-probe measurements revealed sheet resistance of $\sim$68 kΩ/sq for the recovered films. I_{DS}-V_{DS} and transfer characteristics indicate a weak p-type behavior in the films and weak modulation of the drain current by the gate bias.

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