

Abstract Submitted  
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**The effects of copper substrate structure and impurities on the quality of graphene growth** CARL W. MAGNUSON, SHANSHAN CHEN, Univ. of Texas at Austin, LUIGI COLOMBO, Texas Instruments, RICHARD D. PINER, RODNEY S. RUOFF, Univ. of Texas at Austin — Since we discovered growth of mono-layer graphene on Cu substrates, most researchers use the same 99.8% pure foil from Alfa-Aesar as cited in our original publication. We have investigated several other copper substrates for their suitability for graphene growth. We find that the purity and thickness of the copper foil have measureable effects on the quality of the graphene and growth parameters needed to obtain large mono-layer coverage. We will present our findings and summarize the effects that we have seen. Our methods for determining graphene quality include SEM, scanning micro-Raman, and AFM.

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