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CVD graphene growth on different substrates[1] P. HÄBERLE[2], A. CORTES, C. CELEDON, V. DEL CAMPO, UTFSM — Graphene growth on solid substrates have the advantage of growing high quality epitaxial graphene. In this sence it is important to choose substrates and precursors having in mind the final application and an efficiency if the process. In this work we grow graphene by CVD on three different substrates, changing temperatures and precursor concentration. For graphene growth on copper foil we heat the sample up to 1000 ° C in the presence of a hydrogen and acethylene flux. The same process is performed for graphene growth on copper oxide thin films. These thin films (∼400 nm) are prepared by conventional sputtering on SiO_2 substrates and the reduced inside the preparation chamber. The advantage of this process is that copper undergoes a dewetting process during graphene growth, so at the end we have graphene suported on the SiO_2 substrate. To monitor graphene growth we use Raman spectrometer. For graphene growth on Ru(0001) we heat the substrate, temperature between 840°C and 1000°C in ultra high vacuum (UHV). We introduce ethylene in the vacuum chamber and cool down the sample. To monitor graphene growth we use Low Energy Electron Diffraction.

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