

Abstract Submitted
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Graphene grown on Ni surface: quantitative analysis IRMA KULJANISHVILI¹, DMITRIY DIKIN, Northwestern University, ALICE RILEY, Hendrx College, PAVAN PATEL, VENKAT CHANDRASEKHAR, Northwestern University — CVD growth of graphene on various substrates, e.g. Copper or Nickel, has become an increasingly popular method for production of large films. Unlike copper mediated growth, the CVD growth process of graphene on Nickel film is not self-limiting, hence understanding the main factors and/or conditions that influence the growth of one or few layers of graphene on Nickel is important. We will present our results on CVD growth of graphene on Nickel films deposited on Si/SO₂ substrates. We will discuss our results of single and few layer graphene synthesis and our attempts to explain the growth mechanism of graphene. Correlation between SEM and AFM/EFM studies and optical characterization of graphene will be presented. A.R. acknowledges the support of International Institute of Nanotechnology REU Program

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