Graphene Device and Process Integration - Challenges ahead!

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Graphene research has matured from fundamental investigations of material properties to very specific demonstrations of devices and their potential for applications. In this talk, I will present several promising areas, where the exceptional properties of graphene may be exploited. Two examples are graphene-based hot electron transistors [1], [2] and graphene-membrane-based nanoelectromechanical systems [3], [4]. However, proper device and process integration remains challenging and currently prevents commercialization. Several such open issues will be discussed in detail [5], [6].

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