

Abstract

This work is focused on preparation of graphene by epitaxial growth on silicon face of silicon carbide. In the introduction, the interesting properties of graphene are briefly described, and its possible applications are mentioned. Subsequently, the methods of preparation are discussed with an emphasis on epitaxial growth and the role of hydrogen on the process itself. Further, the possible ways of measuring graphene samples are explained and three of them are analyzed in more detail - Raman spectroscopy, atomic force microscopy, and Hall effect measurement. The experiment itself is focused on the effect of argon-hydrogen atmosphere on the growth of graphene.