



先端光量子科学アライアンス 談話会

光量子科学研究センター セミナー

“Ultrathin carbon films: synthesis and applications”

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日時：平成 25 年 11 月 22 日(金) 10:30-12:00

場所：東京大学理学部1号館2階 201B 号室

Abstract

Nanocarbon materials and especially graphene has attracted a widespread attention recently. However the problem of graphene synthesis directly on an insulator is still unresolved. This is an eagerly awaited breakthrough that should open up a route for monolithic integration of graphene and silicon photonics. In the presentation, recent results on the graphene chemical vapor deposition directly on dielectric substrates are presented. The second part of the talk is focused on the pyrolytic carbon (PyC) films that can be deposited in dielectric substrates of arbitrary size and shape. These films consisting of intertwined graphene ribbons may have thickness from 5 to 50 nm. Applications of PyC films for fabrication of transparent electrodes, microresonators, microwave shields etc are discussed.

紹介教員: 五神真教授 (物理学専攻)