# Seminář odd. 26
# Tenkých vrstev a nanostruktur

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TÉMA

## Chemical sensing by graphene field effect transistors

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Graphene's two dimensional nature, highly sensitive unique electrical properties and low intrinsic noise characteristics make it a prime candidate for the creation of a new generation of molecular sensors. Despite of high sensitivity of graphene sensors, their selectivity remains a major problem for their practical use. In this talk I present different strategies for selective sensing using graphene-based sensors. In particular, I show our recent experimental and theoretical results on small organic molecules adsorbed on graphene field effect transistor investigating the mechanism of charge transfer doping and the existence of molecular specific signatures in electrical conductivity measurements.

odborný garant: *Dr. Jan Kočka*