

# Seminar

## Graphene Technologies for Bioelectronics

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Graphene based sensors have received widespread attention due to its unique properties as, high electrical conductivity and high surface area. The 2D structure of graphene allows all carbon atoms to be exposed to the surrounding, which makes it a good platform for adsorbing and detecting molecules, leading to increased sensitivity. Graphene is also a biocompatible material, providing a highly biocompatible microenvironment for the immobilization of biocompounds, such as antibodies, enzymes, DNA, and aptamers. Therefore, these properties make graphene an appealing transducer material in biosensors. This presentation will provide an overview on the fundamentals and applications of graphene and its derivatives (like graphene oxide (GO) and reduced graphene oxide (rGO)) based technologies and devices for the development of biosensors, highlighting field effect transistors (FETs) and capacitors. Besides that, taking advantage of the easily preparation of GO, a simple preparation rGO microfibers will be presented.

## REMEMBER

### Graphene Technologies for Bioelectronics

Thursday, 6 February 2020 – 12:00 pm

Place: ICN2 Seminar Hall

Hosted by: Prof. Arben Merkoçi, Nanobioelectronics & Biosensors Group Leader at ICN2

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