

## Ultrathin metals and graphene for flexible optoelectronic devices

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Ultrathin materials are becoming essential for the functionalization of optical surfaces, including glass and crystalline materials. In the talk we will show how ultrathin metals and graphene can be exploited to create competitive transparent electrodes and modulate the optical response. We will also provide examples of applications enabled by these materials and techniques, including efficient indium-free light emitting diodes and solar cells, light deflectors for 3-D displays, heads-up displays, self-cleaning or easy-to-clean screens, and super-wetting surfaces for biology.