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Plasma based synthesis of conductive polymer nanostructures: from nanoparticles to thin films¹ JOHANNES BERNDT, CEDRIC PATTYN, GREMI CNRSUniversity of Orleans, ANA DIAS, Tcnico Lisboa - Universidade de Lisboa, EVA KOVACEVIC, GREMI CNRSUniversity of Orleans — This contribution deals with polymerization processes in aniline containing low temperature plasmas. The work is focused on the synthesis of conductive polymers which are produced either as thin films (deposited on advanced nanocarbons like carbon nanotubes, carbon nanowalls and graphene) or as nanoparticles. The work will discuss some general strategies for the plasma based synthesis of conductive polymers (based on plasma and material diagnostics as for example in-situ FTIR, mass spectroscopy, etc) and will give as well some examples for applications.

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