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【206】On-surface synthesis and substrate transfer of aligned graphene nanoribbons

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On- surface synthesis enables fabrication of graphene nanoribbons (GNRs) with atomically precise edges and ribbon width which allows tuning their electronic bandgap. This feature makes GNRs interesting candidates for application in room temperature switching devices like field effect transistors (FETs). However, integrating GNRs as the active material in FETs poses great challenges concerning contact area and yield. This contribution addresses some of the critical challenges in the further development of GNR technologies, in particular on GNR fabrication, substrate transfer and GNR characterization.

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