

## Publication

## Solution-Synthesized Extended Graphene Nanoribbons Deposited by High-Vacuum Electrospray Deposition

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Solution-synthesized graphene nanoribbons (GNRs) facilitate various interesting structures and functionalities, like nonplanarity and thermolabile functional groups, that are not or not easily accessible by on-surface synthesis. Here, we show the successful high-vacuum electrospray deposition (HVESD) of well-elongated solution-synthesized GNRs on surfaces maintained in ultrahigh vacuum. We compare three distinct GNRs, a twisted nonplanar fjord-edged GNR, a methoxy-functionalized “cove”-type (or also called gulf) GNR, and a longer “cove”-type GNR both equipped with alkyl chains on Au(111). Nc-AFM measurements at room temperature with submolecular imaging combined with Raman spectroscopy allow us to characterize individual GNRs and confirm their chemical integrity. The fjord-GNR and methoxy-GNR are additionally deposited on nonmetallic HOPG and SiO<sub>2</sub>, and fjord-GNR is deposited on a KBr(001) surface, facilitating the study of GNRs on substrates, as of now not accessible by on-surface synthesis.

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