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In-situ Raman Spectroscopy of Flexible Graphene Oxide Films Containing Pt Nanoparticles in The Presense of Atomic Hydrogen

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Abstract : In-situ Raman spectroscopy of flexible graphene-oxide films examined upon exposure to hydrogen gas, air, and synthetic air. The changes in D and G peaks are attributed to defects responding to atomic hydrogen spilled over from the catalytic behavior of Pt nanoparticles distributed all over the film. High-resolution transmission electron microscopy images (HRTEM) as well as electron energy loss spectroscopy (EELS) were carried out to define the density of the samples.

Keywords : in situ Raman Spectroscopy, EELS, TEM, graphene oxide, graphene, atomic hydrogen
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