† Electronic Supplementary Information

**Thinning Vertical Graphenes, Tuning Electrical Response: from Semiconducting to Metallic**

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**Fig. S1** Schematic shows the integrated plasma nanofabrication system that includes the inductively coupled plasma enhanced CVD and the integrated magnetron sputtering system.
Fig. S2 (a) SEM image of Cu NP decorated VGS1 networks. (b) High-resolution TEM image shows Cu material deposited on the graphitic edges of the VGS1 structure and the corresponding EDX spectrum in (c) shows the presence of Cu and carbon in VGS1.