Electronic Supplementary Information (ESI)

**Controllable Synthesis of Silver Nanoparticle-Decorated Reduced Graphene Oxide Hybrids for Ammonia Detection**

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![Raman spectra of RGO and RGO/Ag hybrids](Fig. S1 Raman spectra of RGO and RGO/Ag hybrids.)
Fig. S2 FET measurement of pure RGO.
Fig. S3 (a-d) SEM images of RGO flakes decorated with different loadings of Ag NPs controlled by deposition time.
Fig. S4 SEM images of Ag NPs on a gold electrode with deposition time of 1h. Electrical test showed the circuit was still open.
Fig. S5 Dynamic sensing response to 10,000 ppm NH$_3$ for another RGO/Ag hybrid sensor.