**Fig. S1.** Schematic for preparing RGO-AgNPs membranes [71]

**Fig. S2.** a, b) SEM images of (a) clean silicon wafer and (b) RGO/AgNP membrane on the surface of silicon wafer after the adhesion experiments. (c–f) Photographs of (c) clean silicon wafer, (d) GO, (e) RGO, and (f) RGO/AgNP after the viability experiments. [71]
**Fig. S3** SEM image of the GCE/rGO (a), GCE/rGO/AuNPs (b, c and d). [83]

**Fig S4**. Rh123 absorption by rGO/AuNPs composite. [92]
Fig.S4. Image of process to synthesis RGO/Pd-Cu NPs composite by a two-step method. [94]