Supporting information

Table S1. Values of lateral size of graphene sheets, transmittance and sheet resistance of thin films depend on production method.

No.	Production method	Lateral size of graphene sheets (μm)	Transmittance (%)	Sheet resistance (Ω/sq)	Ref.
1	thermal reduction of GO at 1100 °C	0.2-2.5	/	1.8±0.08k	5
2	thermal reduction at 1100°C of spin-coated GO thin films	0.36	80	10^2-10^3	27
3	combination of chemical and thermal reduction of GO thin films	7	65	70k	28
4	graphene sheets produced by CVD	Centimeter scale	97.4	120	2
5	chemical reduction of GO thin films	2	80	350	29
6	graphite dispersion in surfactant-water solution	< 1μm	62	970k	30
7	graphene prepared by micromechanical cleavage of graphite	< 1μm	98	400	3
8	graphite exfoliation in water-surfactant solution	< 1μm	90	10M–10k	31
9	graphene nanosheet film was formed via self-assembly at the liquid-liquid interface	8-10 μm	70	10^2	32
10	electrochemical exfoliation of highly oriented pyrolytic graphite	4 μm	96	43k	20
11	graphene prepared from easily soluble graphite	few μm	80	3.56k	33
12	electrochemical exfoliation of graphite into graphene in aqueous solutions of inorganic salts	18.7 μm	80	1.81k	34
13	electrochemical exfoliation of highly oriented pyrolytic graphite	Up to 2 μm	76	440	35
14	spin-coating of graphene oxide (GO) aqueous dispersions, or vacuum-filtration of liquid-phase exfoliated (LPE) graphene	/	/	100k	36