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氧化石墨烯对水中内分泌干扰物双酚 A 的吸附性能

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Elimination of Bisphenol A from Water *via* Graphene Oxide Adsorption

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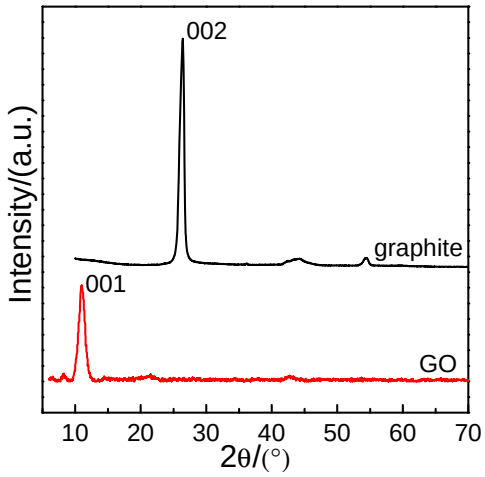


Fig.S1 XRD patterns of graphite and GO

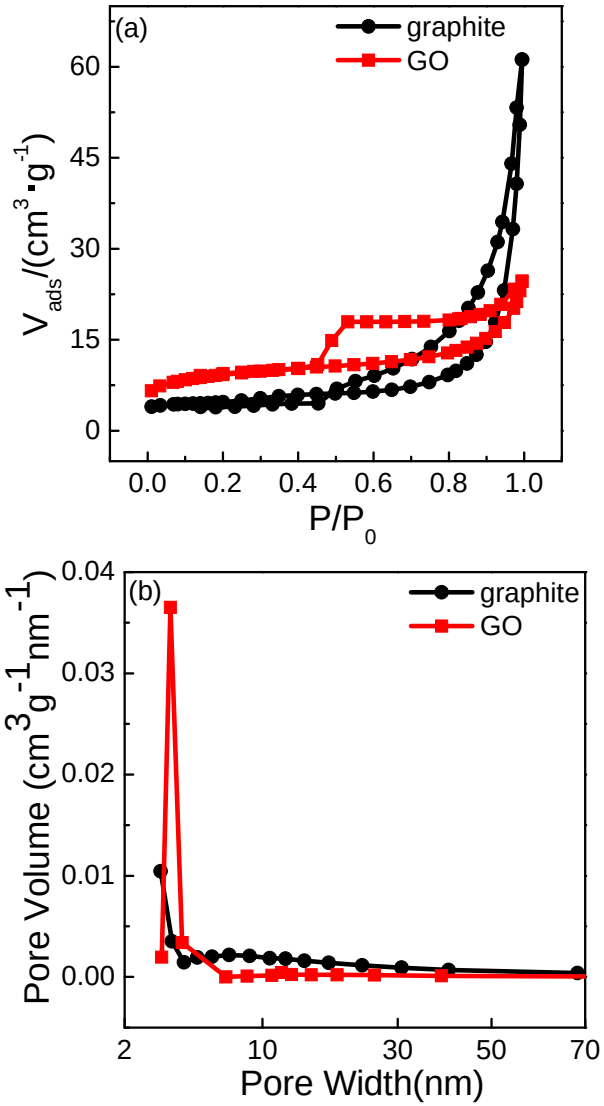


Fig.S2 (a) Nitrogen adsorption-desorption isotherms of graphite and GO; (b) the pore size distribution of graphite and GO

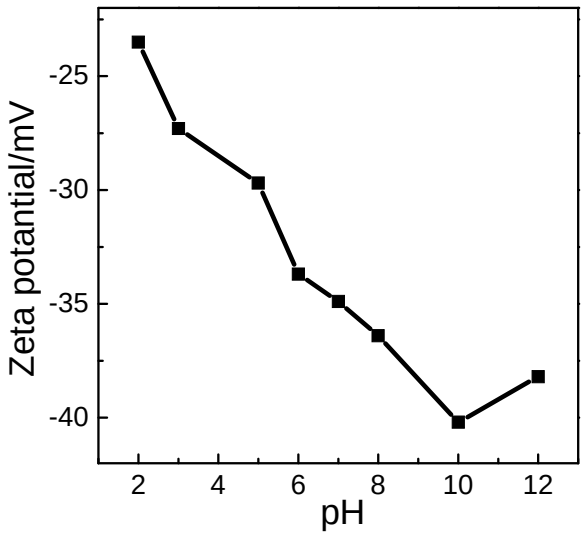
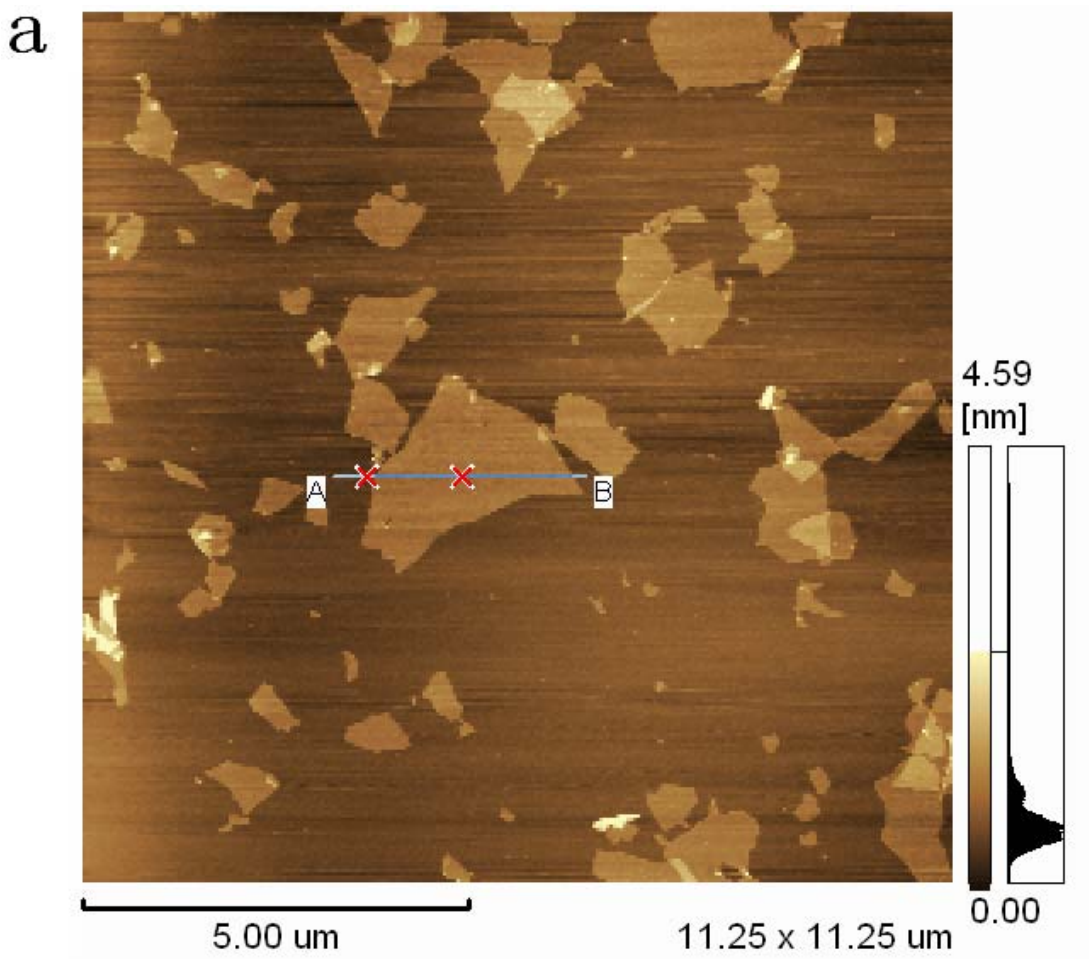
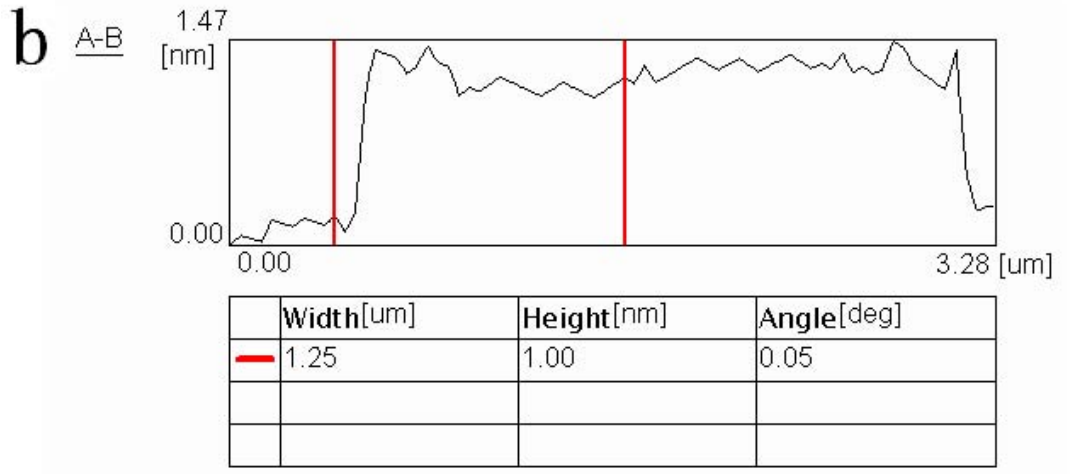


Fig.S3 Zeta potential analysis of GO dispersion





	Width[um]	Height[nm]	Angle[deg]
—	1.25	1.00	0.05

Fig.S4 (a) AFM image of GO; (b) cross-section analysis of GO

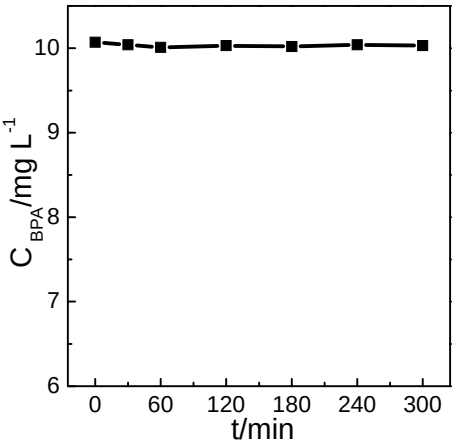


Fig.S5 The blank experiment of BPA concentration change without GO *vs* time

Table S1 Adsorption capacity of BPA by GO in comparison to other literature values

Adsorbent	*pH*	*T*/(°C)	S_{BET}/($m^2 \cdot g^{-1}$)	MAC^a/($mg \cdot g^{-1}$)
GO	6.0	25	32	87.8
Porous carbon produced at 400 °C from Moso bamboo[1]	NA[b]	23	3	2.1
Porous carbon produced at 700 °C from Moso bamboo[1]	NA[b]	23	251	11.4
Porous carbon produced at 1000 °C from Moso bamboo[1]	NA[b]	23	300	41.8
AC purchased from Wako[1]	NA[b]	23	1350	56.5
AC purchased from Takeda[2]	NA[b]	25	1119	23.5
Carbonaceous material produced at 600 °C from wood chips[2]	NA[b]	25	NA[b]	4.2-18.2
Carbonaceous material produced at 800 °C from wood chips[2]	NA[b]	25	NA[b]	24.1-31.4
As-grown carbon nanotubes[3]	6.0	7	78	61.0
Modified carbon nanotubes[3]	6.0	7	95	69.9
Surfactant-modified zeolite synthesized from coal fly ash (with low CaO content)[4]	9.6	25	51	56.8
Mesoporous silica MCM-41 (Aldrich)[5]	6.2-7.2	25	1030	9.0

[a] Maximum adsorption capacity obtained from the Langmuir model or from the adsorption capacity at the highest initial concentration. [b] Data not available.

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