

SUPPORTING INFORMATION

Iron Supported On Bioinspired Green Silica for Water Remediation

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Table S1: ICP-MS concentration data recorded for heavy metals in river and tap water samples.

Metal	River Water (ppb)^b	Tap water (ppb)^b
Cr	4.3 ± 0.4	14.3 ± 0.4
As	0.7 ± 0.1	2.5 ± 0.1
Cd	5.5 ± 0.1	12.7 ± 0.1
Ca ^a	43,600 ± 1000	11,500 ± 1000
Fe	60.1 ± 0.2	249.9 ± 0.2
Mn	3.4 ± 0.1	9.9 ± 0.1
Mg ^a	6000 ± 1000	8500 ± 1000
Pb	3.1 ± 0.1	54.8 ± 0.1
Ni	12.0 ± 0.2	50.4 ± 0.2
Zn	2.7 ± 1	353.9 ± 1
Cu	12.0 ± 0.3	60.3 ± 0.3

^a Measured by FAAS.

^b Reported values are based on an average result of three experiments.

Table S2: Concentration ($\mu\text{g cm}^{-3}$) of As(V) in filtered solutions, as measured by ICP-OES.

Sample	Prior to sorbent addition	After sorbent addition	As(V) recovered	Recovery %
Distilled Water	1.045	<0.005	1.042	99.68
River water	1.075	<0.005	1.052	97.86
Tap Water	1.041	<0.005	1.000	96.06

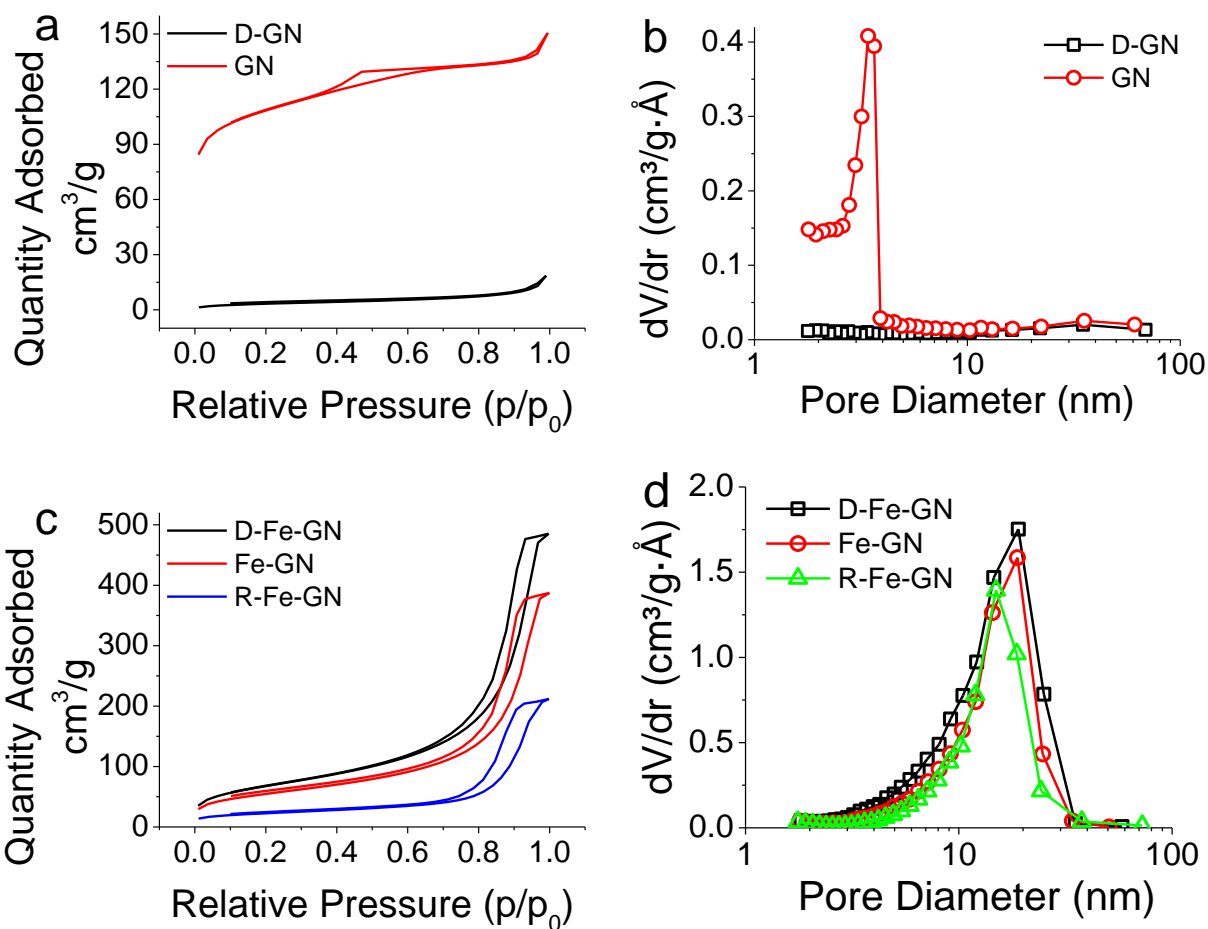


Figure S1: Nitrogen adsorption isotherms (a,c) and pore size distribution (b,d) for GN without (a,b) and with (c,d) iron.

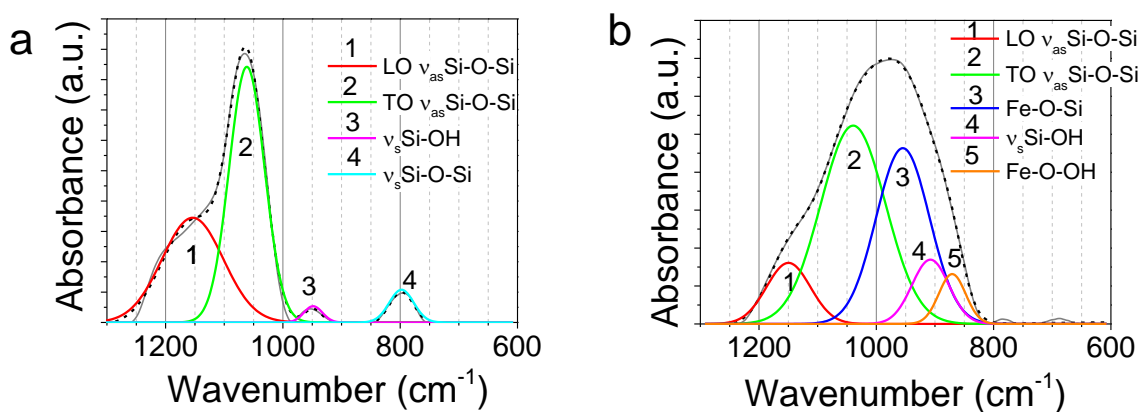


Figure S2. The deconvolution of $\sim 1100\text{cm}^{-1}$ region for sample without (a) and with (b) iron. In the sample without iron (D-GN), the usual silica peaks were identified (**Figure S2a**), which included asymmetric Si-O-Si stretching modes at $\sim 1150\text{cm}^{-1}$ and $\sim 1060\text{cm}^{-1}$ (transverse and longitudinal optic modes, TO and LO, respectively), symmetric Si-O-Si stretching modes at $\sim 800\text{cm}^{-1}$ and silanol (Si-OH) bonds at $\sim 950\text{cm}^{-1}$.