Electronic Supplementary Material (ESI) for RSC Applied Interfaces.

Green Synthesis of disordered N-doped Carbonaceous Aerogel from Waste for the Removal of Over-the-counter Drugs and Environmental Assessment

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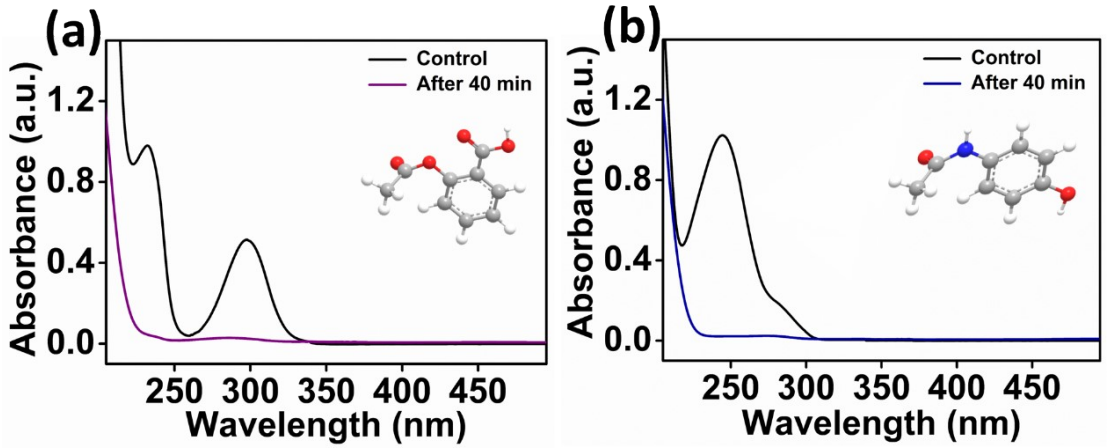

Fig. S1 UV-vis spectra of **(a)** ASP and **(b)** PCM before and after 40 minutes of adsorption.

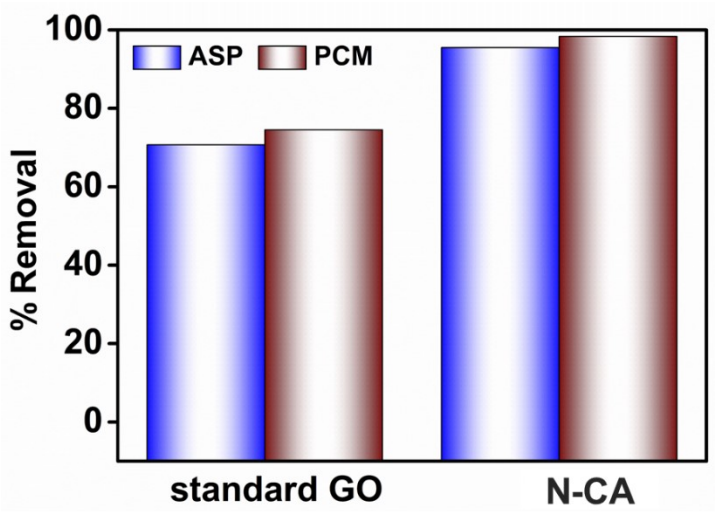

Fig. S2 Comparative adsorption efficiency of N-CA with GO towards the adsorption of ASP and PCM.

Table. S1 Pseudo first order and pseudo second order kinetics for ASP and PCM adsorption.

Pseudo First Order

	C_0 (mg L^{-1})	k_1 (min^{-1})	R^2	q_e, cal (mg g^{-1})	q_e, exp (mg g^{-1})
ASP	20	0.1932	0.8638	32.3832 ± 26.8674	12.4183
PCM	15	0.1662	0.8837	9.5751 ± 6.0409	9.6159

Pseudo Second Order

	C_0 (mg L^{-1})	k_2 (min^{-1})	R^2	q_e, cal (mg g^{-1})	q_e, exp (mg g^{-1})
ASP	20	0.0139	0.9975	10.6838 ± 0.1873	12.4183
PCM	15	0.0362	0.9989	7.8474 ± 0.0887	9.6159

Table. S2 Langmuir and Freundlich adsorption isotherm for ASP and PCM adsorption.

Langmuir Isotherm

	C_0 (mg L^{-1})	K_L (mg g^{-1})	R^2	q_m (mg g^{-1})	R_L
ASP	20	0.0384	0.9842	138.6963 ± 7.8687	0.5658
PCM	15	0.0836	0.9973	117.7856 ± 2.7219	0.4437

Freundlich Isotherm

	C_0 (mg L^{-1})	K_F (mg g^{-1})	R^2	n
ASP	20	6.7234	0.8305	2.1101 ± 0.4349
PCM	15	11.9017	0.9133	2.1408 ± 0.2976