

Table S1: The central composite design and the corresponding responses obtained by the HPLC method for the studied PPCPs.

Std	Run	Block	Factor 1 A:mass of sorbent	Factor 2 B:des. vol	Factor 3 C:des. time	Response 1 R1	Response 2 R2	Response 3 R3	Response 4 R4	Response 5 R5	Response 6 R6	Response 7 R7	Response 8 mean
2	1	Block 1	1.00	-1.00	-1.00	571	443	466	81	62	103	262	0.760648
14	2	Block 1	0.00	0.00	1.68	664	499	511	80	39	135	291	0.789617
7	3	Block 1	-1.00	1.00	1.00	543	430	471	21	28	109	288	0.566487
18	4	Block 1	0.00	0.00	0.00	730	455	487	96	53	134	291	0.840359
6	5	Block 1	1.00	-1.00	1.00	506	395	424	52	35	61	162	0.543764
19	6	Block 1	0.00	0.00	0.00	666	486	509	84	64	149	361	0.889151
4	7	Block 1	1.00	1.00	-1.00	587	440	458	77	41	102	275	0.716146
11	8	Block 1	0.00	-1.68	0.00	508	388	411	74	24	91	251	0.606844
5	9	Block 1	-1.00	-1.00	1.00	549	431	459	93	43	125	274	0.752939
3	10	Block 1	-1.00	1.00	-1.00	514	414	449	30	13	128	278	0.53305
15	11	Block 1	0.00	0.00	0.00	754	464	531	68	55	146	373	0.860361
10	12	Block 1	1.68	0.00	0.00	649	472	473	65	45	123	277	0.749747
13	13	Block 1	0.00	0.00	-1.68	547	414	430	62	29	115	282	0.656154
9	14	Block 1	-1.68	0.00	0.00	321	297	359	32	16	107	229	0.453746
20	15	Block 1	0.00	0.00	0.00	712	440	449	74	45	139	314	0.78793
16	16	Block 1	0.00	0.00	0.00	690	470	481	80	49	132	359	0.828185
8	17	Block 1	1.00	1.00	1.00	671	477	491	38	90	127	315	0.793625
12	18	Block 1	0.00	1.68	0.00	678	564	504	46	27	141	333	0.723381
17	19	Block 1	0.00	0.00	0.00	680	467	479	66	48	137	333	0.796148
1	20	Block 1	-1.00	-1.00	-1.00	524	318	417	46	47	131	183	0.614837

Table S2: The spiked concentration of different PPCPs in real samples for validation study

Sample	Component ($\mu\text{g L}^{-1}$)						
	Et-P	Pro-P	But-P	DIC	Ibu	BZ-3	4-MBC
S1	1	1	1	2	4	2	2
S2	2	2	2	3	8	4	3
S3	4	4	4	4	15	8	4
S4	10	10	10	10	25	20	10

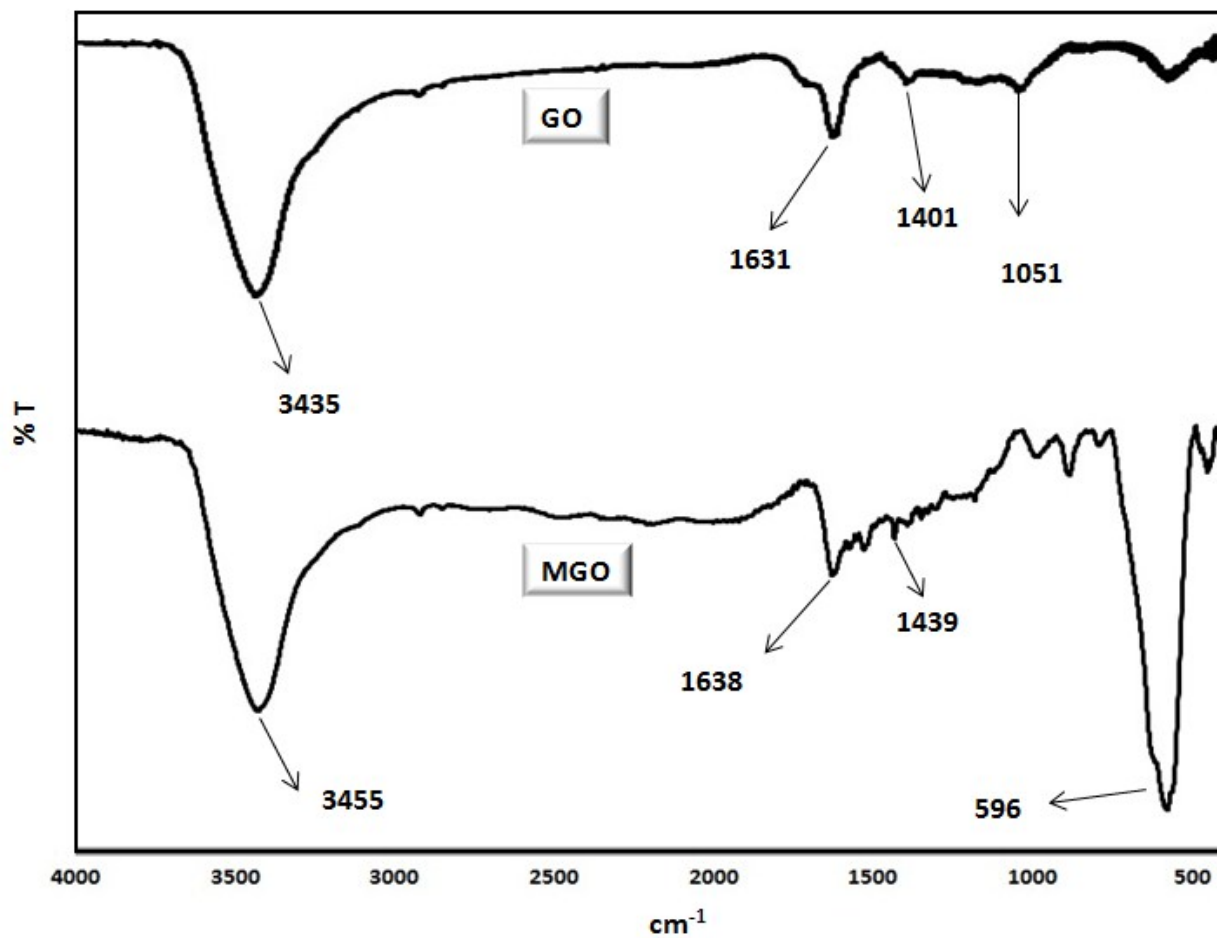


Fig. S1: FT-IR spectra of GO and MGO.

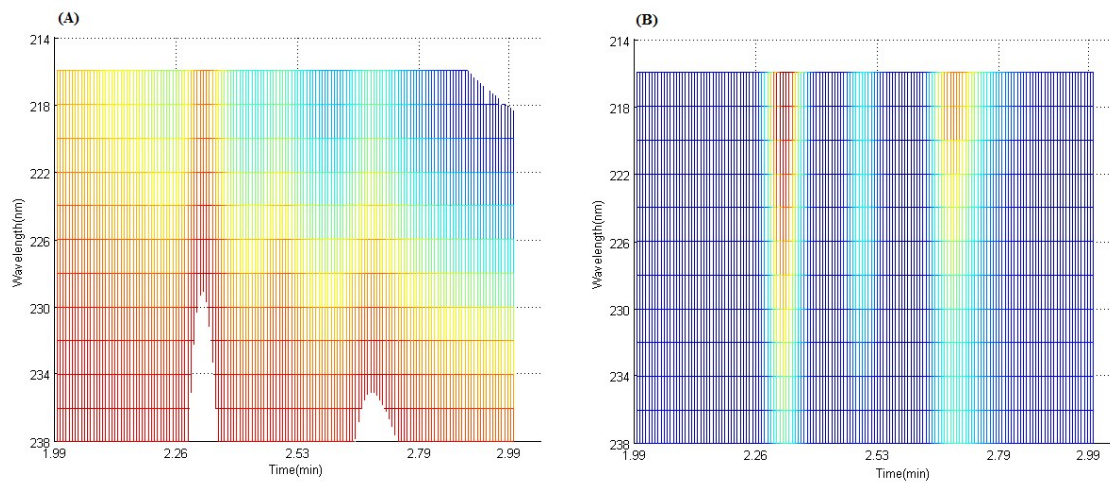


Fig. S2: Contour plots of matrix subset of corresponding to Ibu in spiked real sample: (A) before and (B) after background elimination.