

## SUPPLEMENTARY MATERIALS

### Carbon materials for effective purification of aqueous solutions from tributyl phosphate

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Table S1. XPS elemental compositions of studied sorbents, at. %.

Sample	C	O	S	Al
A	89.0	9.5	–	1.5
B	95.6	4.3	0.1	–
C	94.7	5.3	–	–
D	93.0	7.0	–	–

Table S2. Contents of different carbon species in studied samples determined by XPS, at. %.

Species (Binding energy) / Sample	A	A after 3M HNO <sub>3</sub>	B	B after 3M HNO <sub>3</sub>
C–C (sp <sup>2</sup> ) ~284.4 eV	62.3	36.4	64.6	34.0
C–C (sp <sup>3</sup> ) ~284.8	21.2	20.3	24.8	13.6
C–O (epoxy, C–OH) ~286.7	5.0	5.9	5.4	3.6
O=C–O ~288.6	1.8	8.3	1.1	4.8

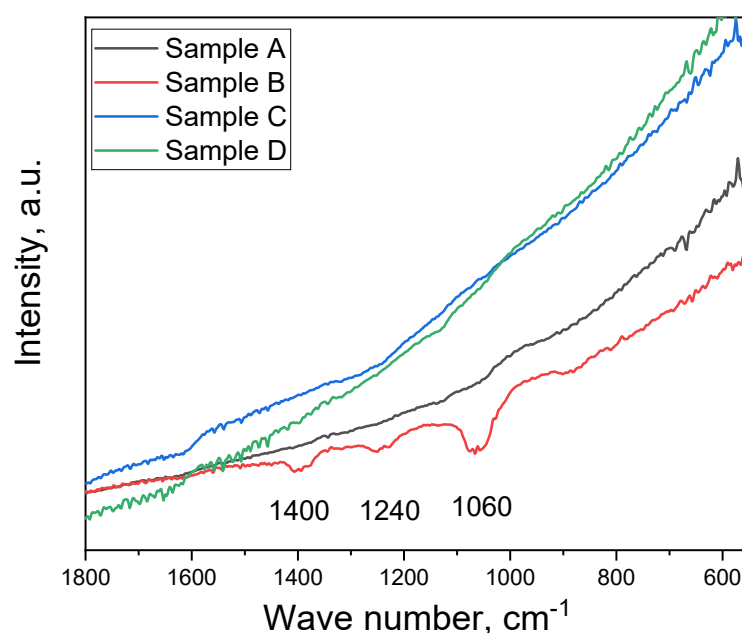
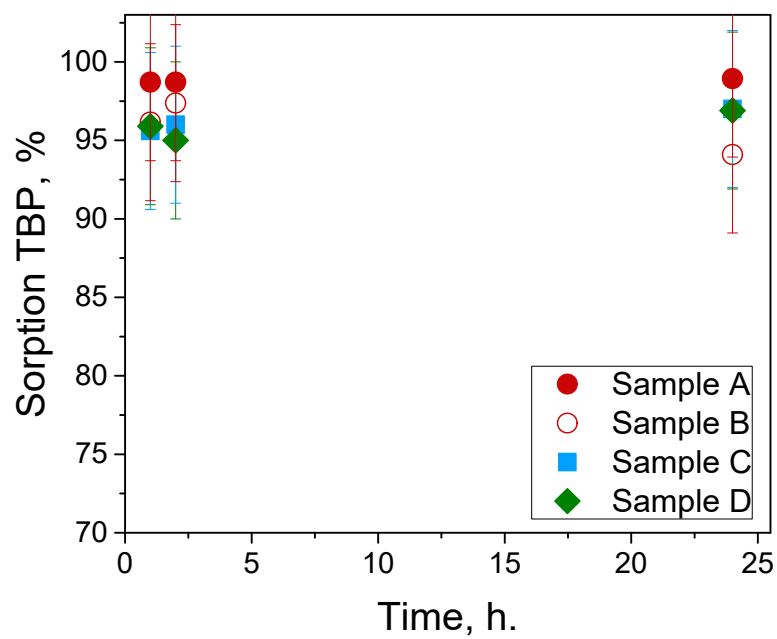
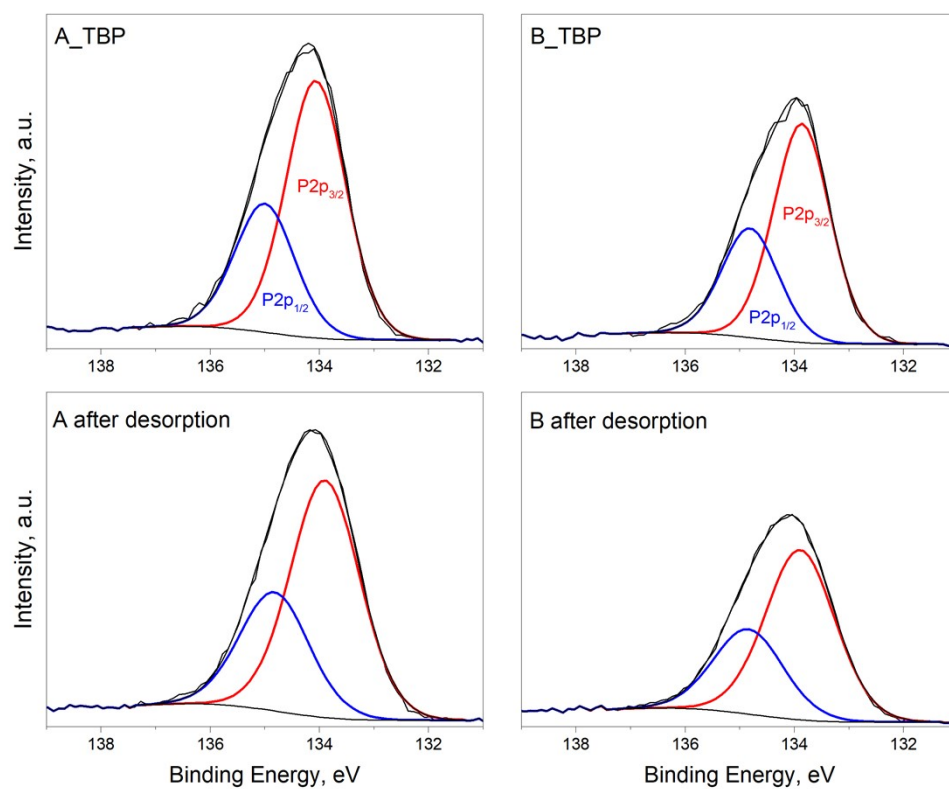


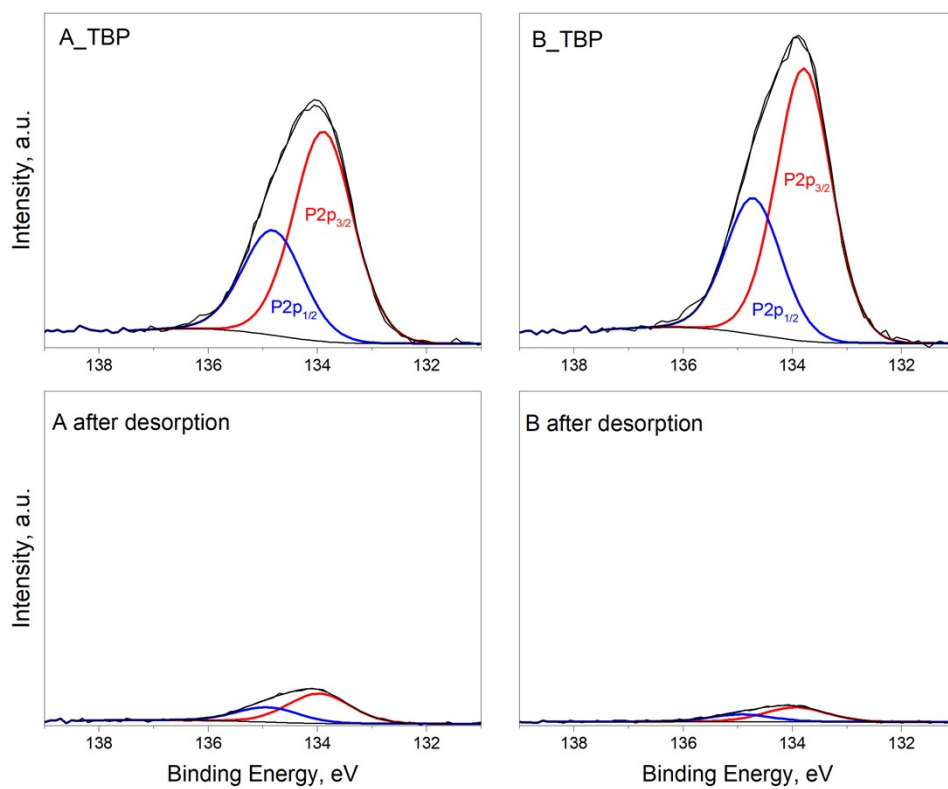
Figure S1. IR spectra of studied samples.



**Figure S2.** Kinetics of TBP sorption in 0.5M HNO<sub>3</sub> ([TBP]/[sorbent] = 0.4 g/g).



**Figure S3.** P2p XPS spectra of samples A and B before and after thermal desorption of TBP.



**Figure S4.** P2p XPS spectra of samples A and B before and after kerosene desorption of TBP.