

Integrated Adsorption-Photodegradation of Organic Pollutants by Combined Photoactive Carbon Xerogel/Titania adsorbent

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Supplementary information

Table S1. Parameters calculated from piecewise linear fittings to Intra-particle diffusion model, corresponding to Figure 7.

Concentration mg L ⁻¹	Stage 1	Stage 2	Stage 3
50			
C	3.93	75.9	104
k _{ip1}	21.3	4.36	0.872
R ²	0.950	0.978	0.971
100			
Intercept	4.22	145	207
k _{ip 2}	45.9	7.36	0.953
R ²	0.943	0.791	0.956
150			
C	10.7	139	210
k _{p 3}	42.0	9.89	1.08
R ²	0.909	0.984	0.996
200			
C	10.4	185	218
k _{ip 4}	50.0	3.77	0.525
R ²	0.938	0.696	0.784

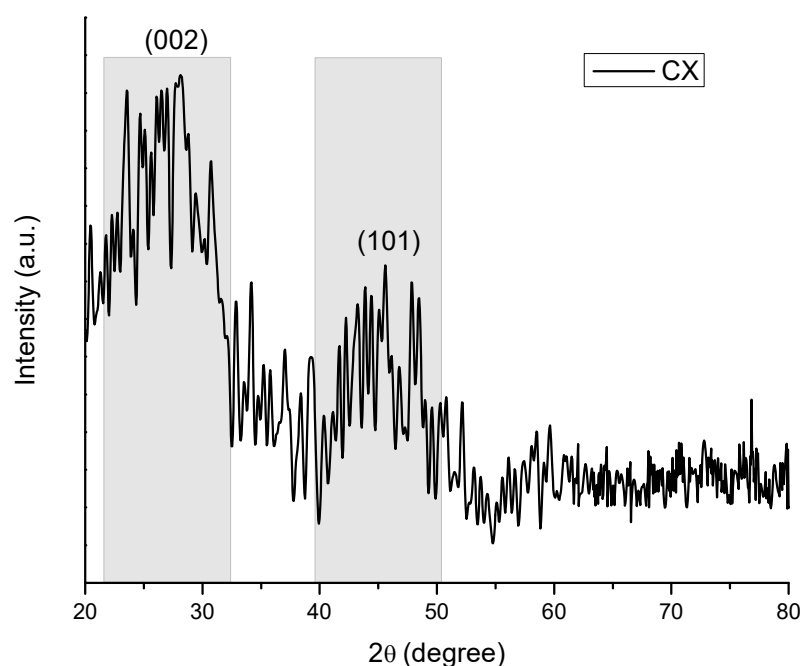


Figure S1. X-ray diffraction (XRD) spectrum of Carbon Xerogel (CX) indicating two broad diffraction peaks of CX at $2\theta = 24^\circ$ and $2\theta = 44^\circ$, represented by highlighted region in light grey. These findings are similar to previously described XRD pattern obtained for CX derived from resorcinol-formaldehyde [46,47].

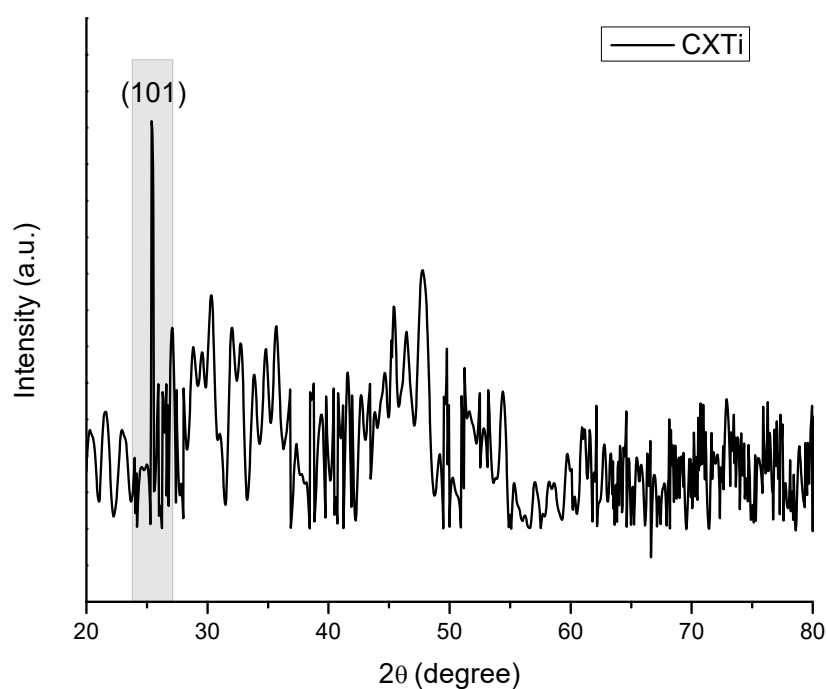


Figure S2. X-ray diffraction spectrum of Carbon Xerogel/TiO₂ (CXTi) indicating the presence of anatase phase at $2\theta = 25^\circ$, represented by highlighted region light grey. These findings are similar to previously described carbon/titania systems [48].