Supporting Information

Novel synthesis of Ag decorated TiO_2 anchored on zeolites derived from coal fly ash for the photodegradation of bisphenol-A

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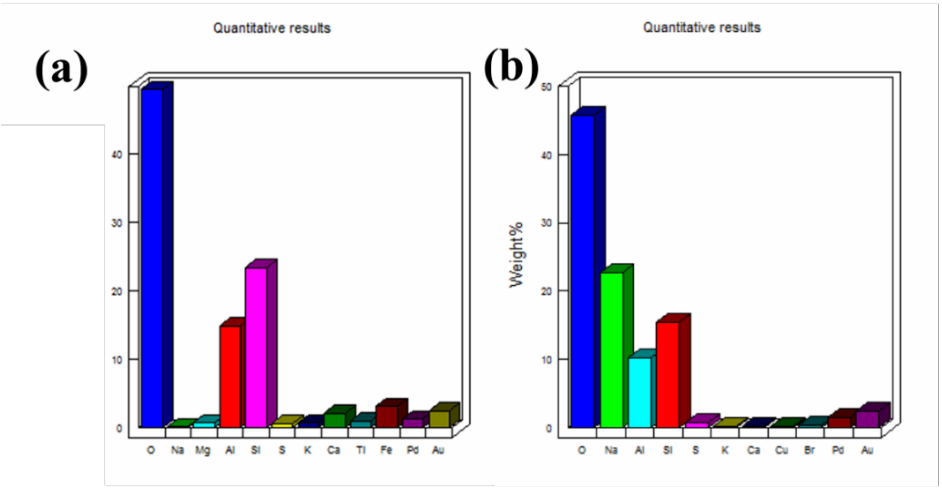
(S1) Composition of CFA as determined by XRF

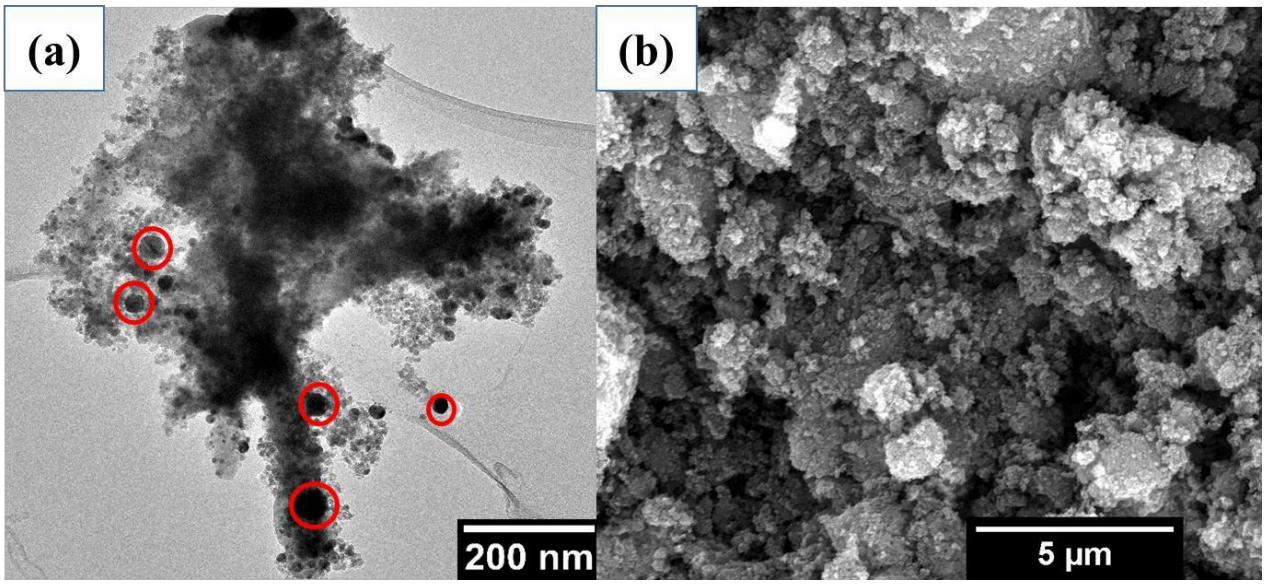
Mineral	%/mass
SiO_2	58.14
Al_2O_3	28.79
Fe_2O_3	0.57
FeO	4.64
MnO	0.047
MgO	1.04
CaO	3.5
Na_2O	0.05
K_2O	0.77
TiO_2	1.57
P_2O_5	0.7



(S2) EDS plots showing chemical composition of (a) CFA and (b) CFA_Zeo.

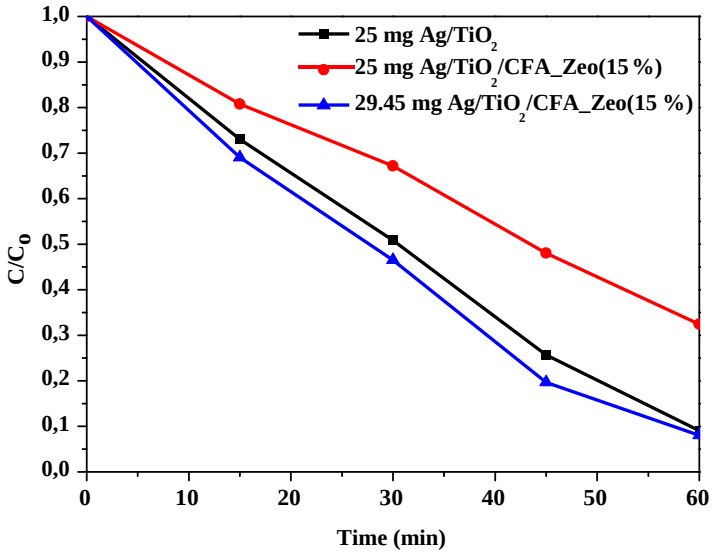
(S3) EDS Elemental composition of CFA and CFA_Zeo

Sample	Si/Na	Si/Al
CFA	22.7	1.57
CFA_Zeo	1.31	1.11



(S4) (a)TEM image of Ag/TiO_2/CFA_Zeo(15 %) and (b) SEM image of Ag/TiO_2/CFA_Zeo(15 %).

(S5)

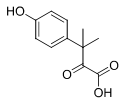
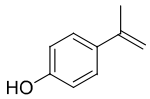
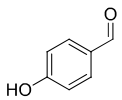
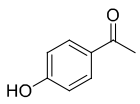
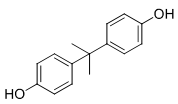


(S5) Photodegradation of BPA under visible light

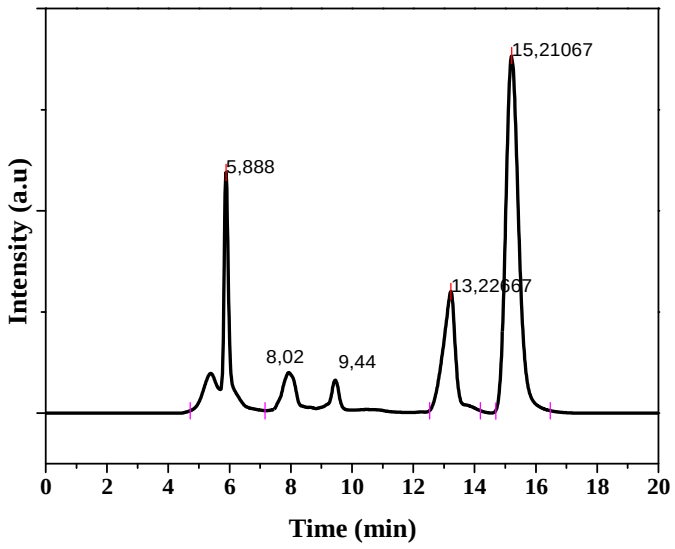
(S6) Mass of $Ag/TiO_2/CFA\_Zeo(15\ \%)$ used for the photodegradation of BPA over 7 experiments

Experiment number	Mass of sample (mg)
1	25.08
2	24.92
3	24.32
4	24.06
5	23.88
6	23.56
7	23.33

(S7)

Molecular structure	**Molecule name**	**Retention time (min)**	**m/z (negative mode)**	**References**
	3-(4-hydroxyphenyl)-3-methyl-2-oxobutanoic acid	5.88	207	[1–3]
	4-(prop-1-en-2-yl)phenol	8,02	133	[3–5]
	4-hydroxybenzaldehyde	9,44	121	[1–3,6]
	1-(-4-hydroxyphenyl) ethanone	13,22	135	[3–5,7]
	4,4'-(propane-2,2-diyl)diphenol (BPA)	15,22	227	

(S8)



(S8) HPLC-UV chromatogram of BPA photodegraded using Ag/TiO_2/CFA_Zeo(15 %)

References

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