

# Photocatalytic Degradation and Antibacterial Properties of Fe<sup>3+</sup>-Doped Alkalized Carbon Nitride

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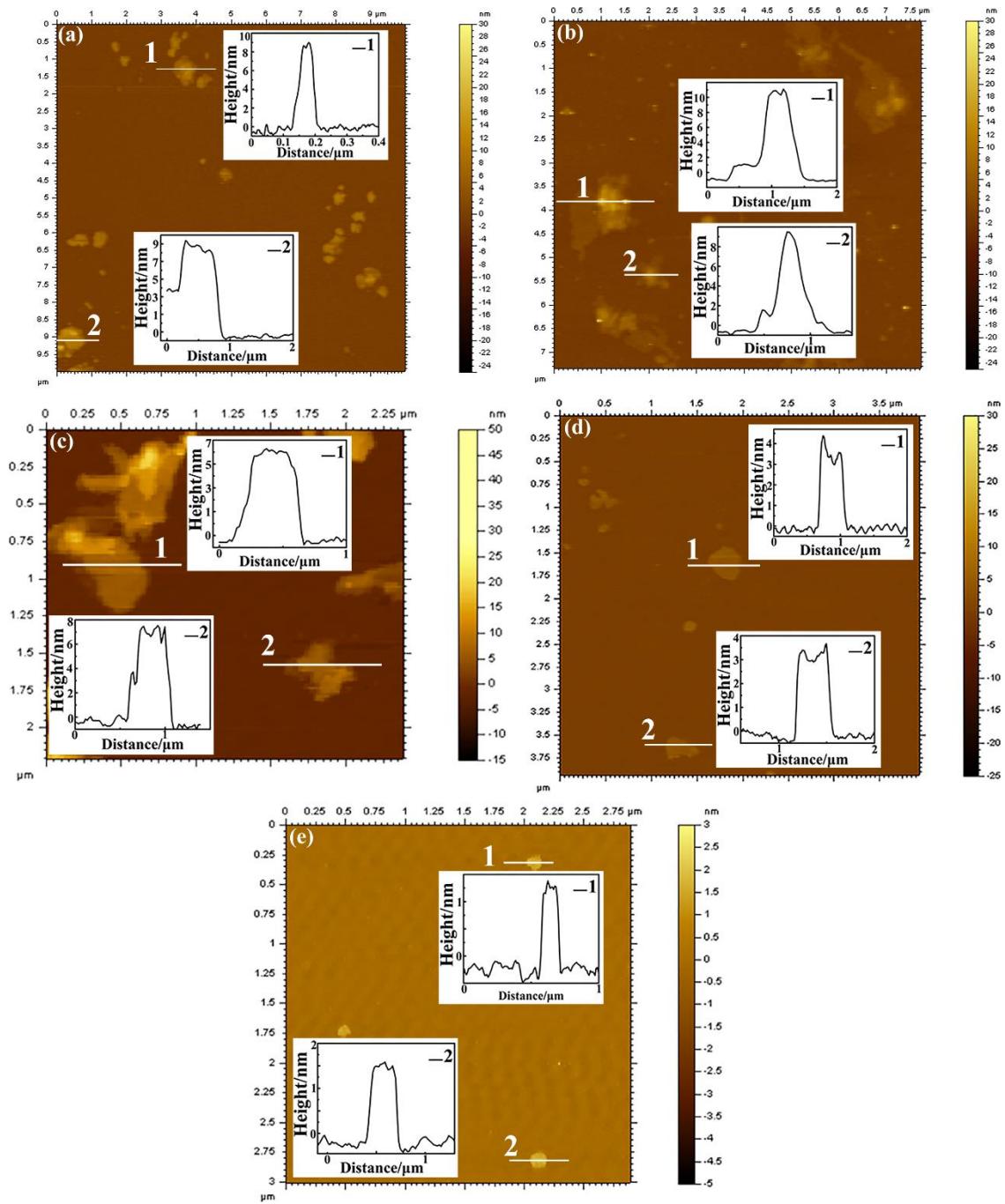
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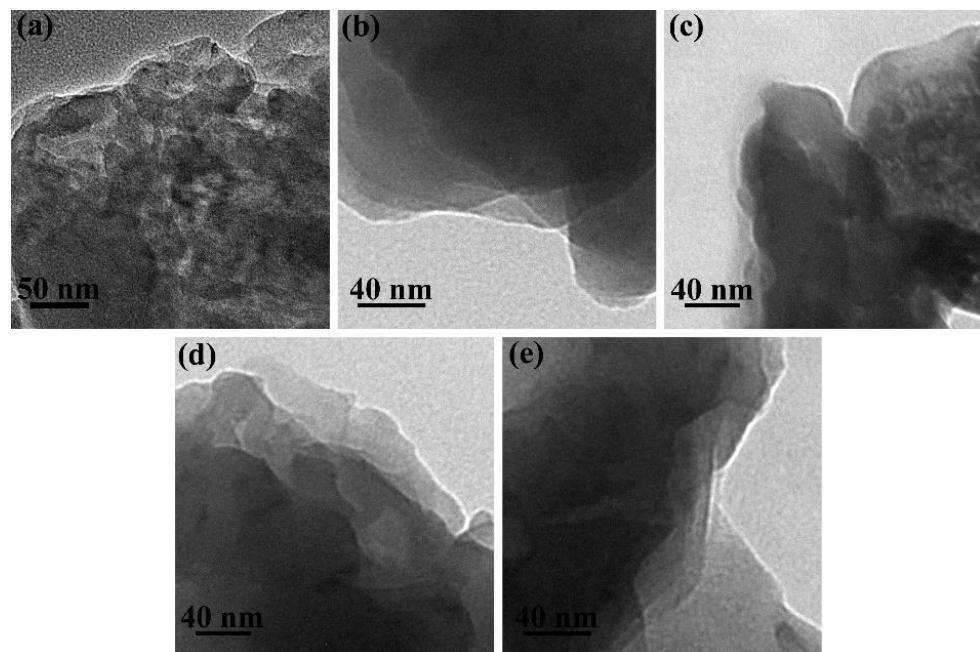
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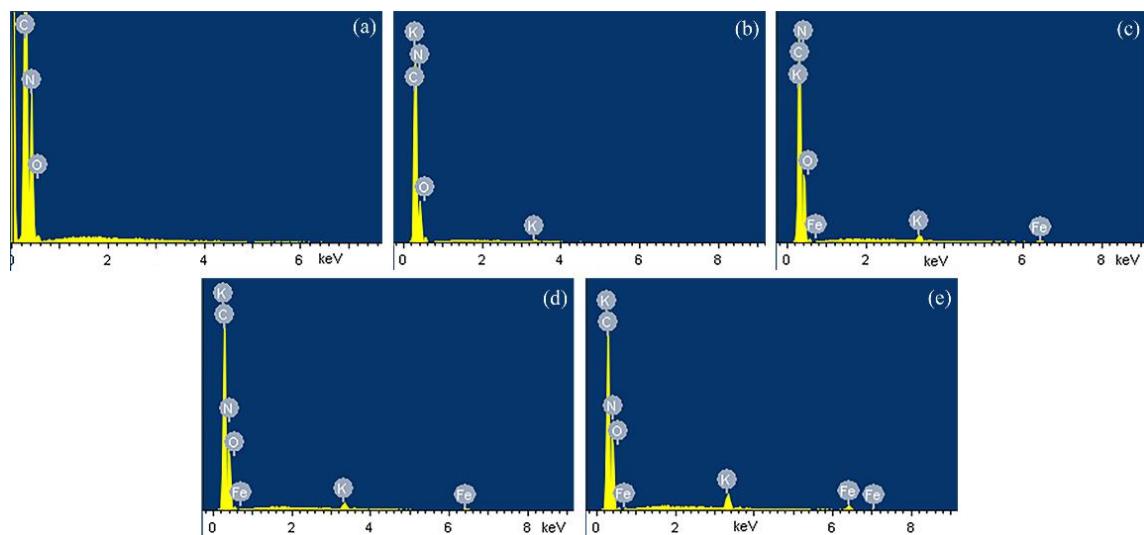
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**Figure S1.** AFM images of (a) CN, (b) ACNK, (c) AKCN-0.006Fe, (d) AKCN-0.010Fe, and (e) AKCN-0.014Fe.



**Figure S2.** TEM images of (a) CN, (b) ACNK, (c) AKCN-0.006Fe, (d) AKCN-0.010Fe, and (e) AKCN-0.014Fe.

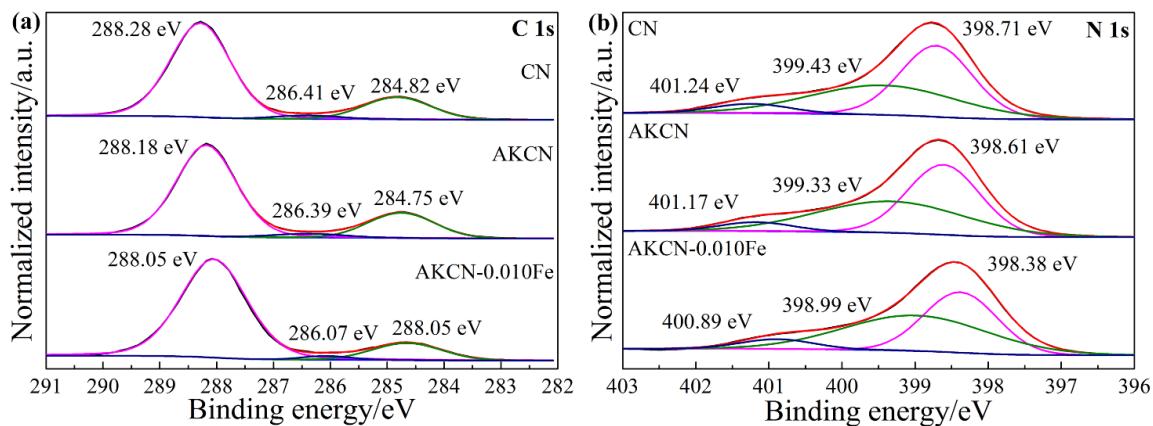


**Figure S3.** EDS results of (a) CN, (b) ACNK, (c) AKCN-0.006Fe, (d) AKCN-0.010Fe, and (e) AKCN-0.014Fe.

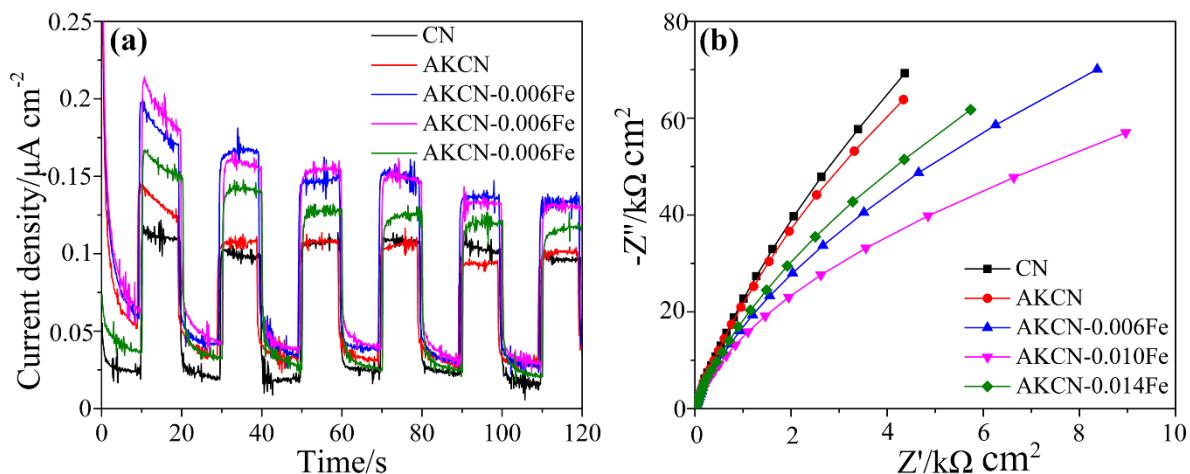
**Table S1.** The elemental composition of all samples.

Samples	Elements content (at%)				
	C	N	O	K	Fe
CN	10.40	80.56	9.05	0	0
AKCN	14.47	70.73	14.52	0.28	0

AKCN-0.006Fe	11.79	81.12	6.17	0.63	0.29
AKCN-0.010Fe	11.72	78.35	8.96	0.63	0.34
AKCN-0.014Fe	9.92	83.23	4.66	1.34	0.86



**Figure S4.** C 1s and N 1s XPS spectra of CN, AKCN and AKCN-0.010Fe.



**Figure S5.** (a) Photocurrent and (b) EIS Nyquist plots of the prepared samples.