

Supporting Information

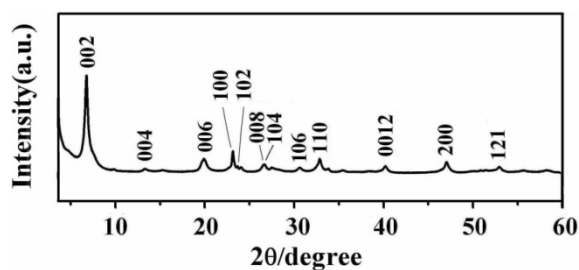


Figure S1. XRD patterns of C1A-HCT (HCT after reaction with methylamine).

Table S1. CHN elemental analysis for C_nO-HCT (n=10, 18)

Sample name	N (%)	C (%)	H (%)
C10O-HCT	0.08	25.79	4.56
C18O-HCT	0.04	18.41	3.47

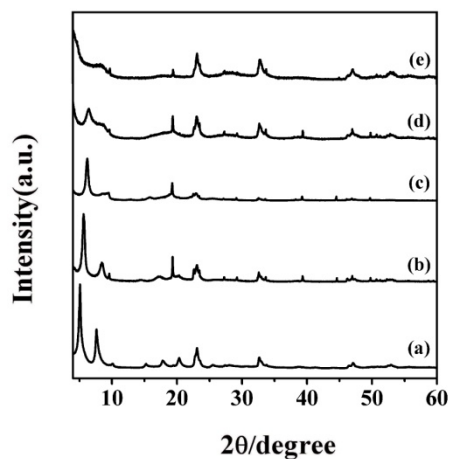


Figure S2. XRD patterns of (a) C10O-HCT, (b) C10O-HCT after a single recycle of photo catalytic degradation test with MO, (c) C10O-HCT after two recycles of photo catalytic degradation test with MO, (d) C10O-HCT after three recycles of photo catalytic degradation test with MO, (e) C10O-HCT after four recycles of photo catalytic degradation test with MO

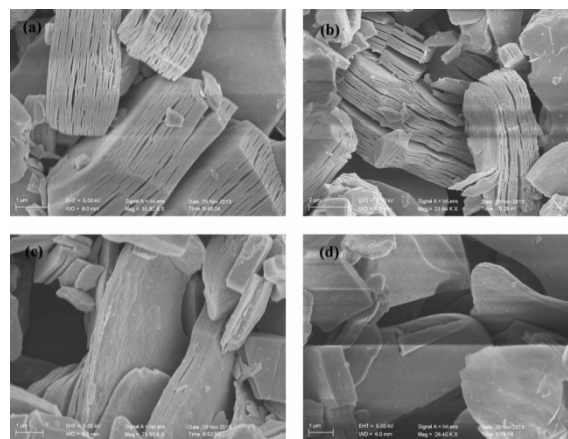


Figure S3. SEM images of (a) C10O-HCT after a single recycle of photo catalytic degradation test with MO, (b) C10O-HCT after two recycles of photo catalytic degradation test with MO, (c) C10O-HCT after three recycles of photo catalytic degradation test with MO, (d) C10O-HCT after four recycles of photo catalytic degradation test with MO

Figure S2 demonstrates the XRD patterns of its left after the photocatalytic degradation test with MO. The interlayer distance drops gradually from (a) to (e). Meanwhile, the peak width becomes wider, which indicates that the perovskite sheets of C10O-HCT become thinner. In that case, more photocatalytic-active (001) face will be exposed in the test. Just as we can see from Figure S3, the nanosheets were exfoliated after the fourth recycle. In these causal cycles, the photo catalytic properties were enhanced for each recycle after.