N-doped Mesoporous Inverse Opal Structures for

Visible-light Photocatalysts

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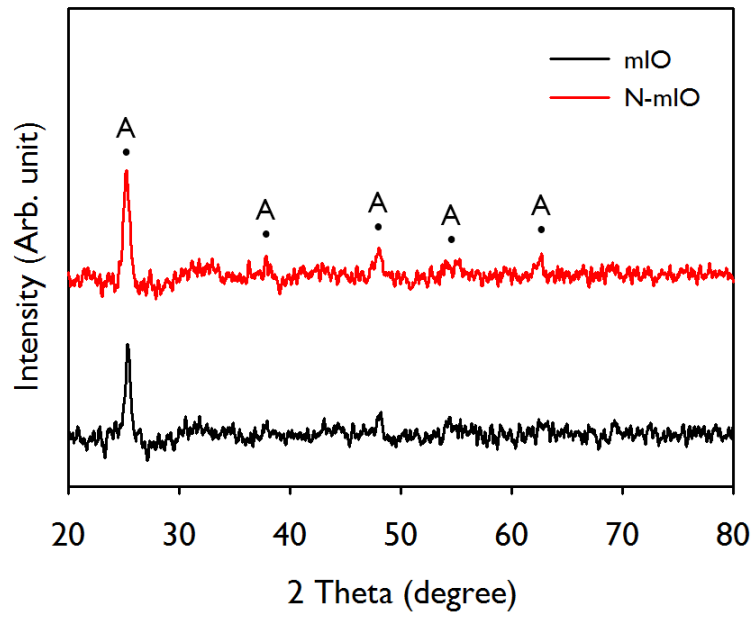
Republic of Korea

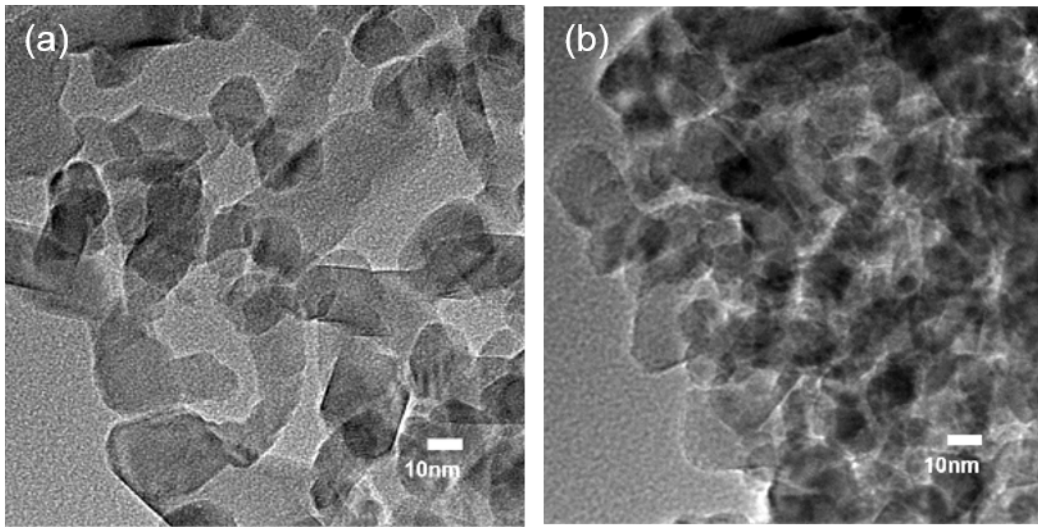Figure S1. XRD spectra of the mIO and the N-mIO.

Figure S2. TEM images of (a) the mIO and (b) the N-mIO. No residue on the surface is observed after the doping.
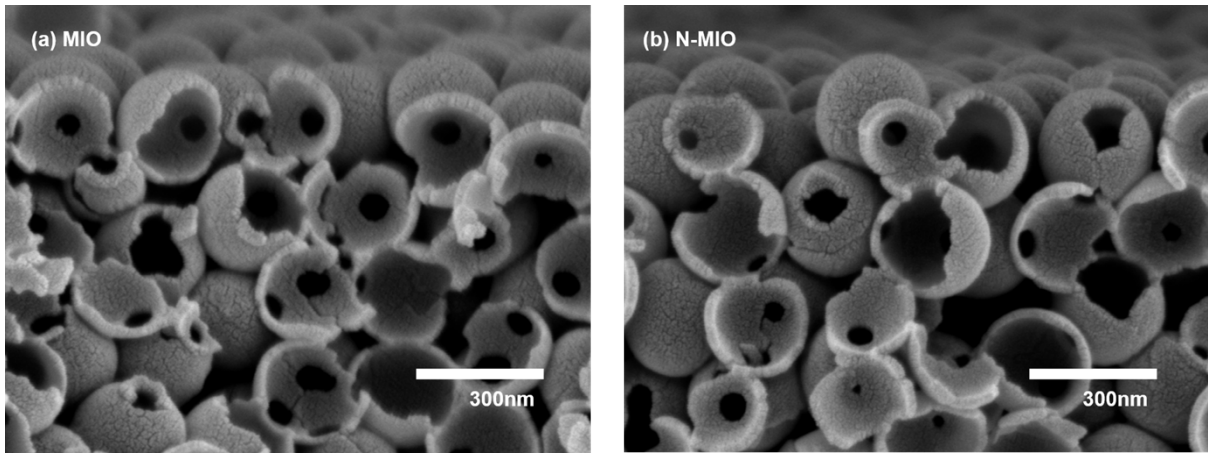
Figure S3. (a) SEM images of the macroporous TiO$_2$ IO film (MIO). (b) SEM image of the N-doped macroporous TiO$_2$ IO film (N-MIO). The N-MIO TiO$_2$ film is prepared under the same conditions as the high-N-mIO TiO$_2$ IO film.
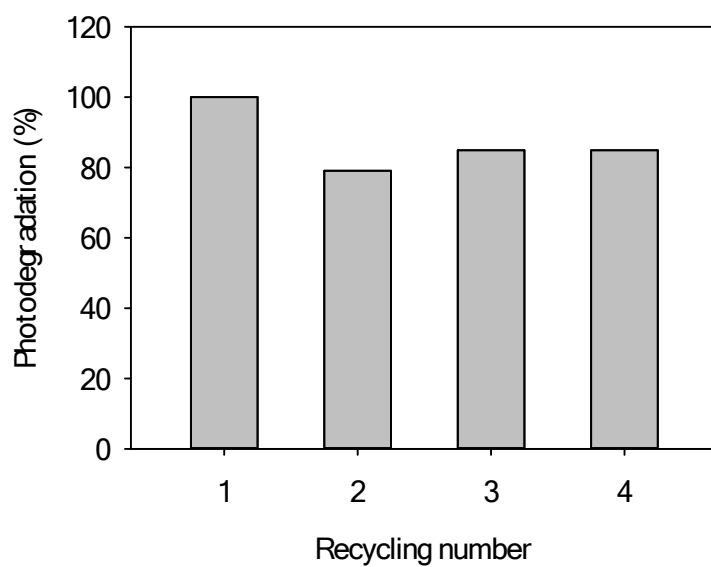
Figure S4. Recycling test of the N-mIO photocatalyst. The photodegradation of initial cycle was set to 100%. The photocatalyst was washed with ethanol and dried at 80°C after each cycle. The photodegradation for 2-4 cycle was maintained at 83% of that of initial cycle.

Table S1. EDX results showing the percentage of each component in mIO, low-N-mIO, and high-N-mIO.

wt%	mIO	low-N-mIO	high-N-mIO
C	13.27	11.82	11.14
N	-	3.74	9.38
O	69.72	66.08	63.49
Ti	17.01	18.37	15.99