
Carbon nitride quantum dots modified TiO₂ inverse opal photonic crystal for solving indoor VOCs pollution

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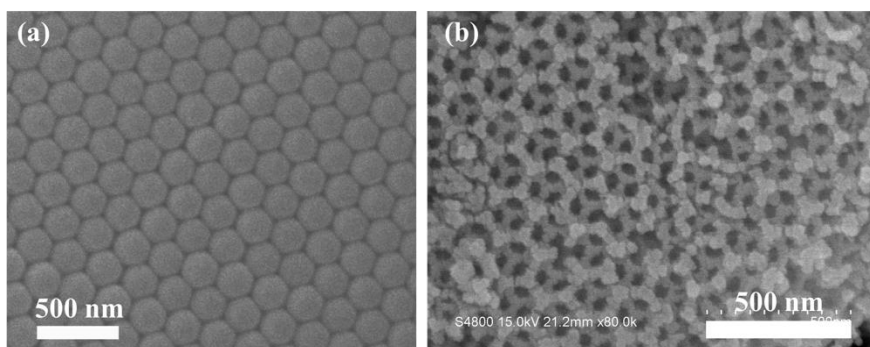


Figure S1. SEM image of (a) PS template (b) TiO₂ IO

Table S1. The comparison of the photocatalytic degradation efficiencies of toluene into CO₂ (η_t , toluene) over different samples

| Concentration (ppm) | TCN IO | TiO ₂ IO | P25 | bulk-TiO ₂ |
|---------------------------|--------|---------------------|------|-----------------------|
| Initial CO ₂ | 498 | 487 | 513 | 440 |
| Final CO ₂ | 4675 | 4223 | 2156 | 3131 |
| Generated CO ₂ | 4177 | 3736 | 1643 | 2691 |
| Photodegraded toluene | 597 | 534 | 235 | 384 |
| Initial toluene | 643 | 649 | 636 | 639 |
| η_t , toluene (%) | 93 | 82 | 37 | 60 |

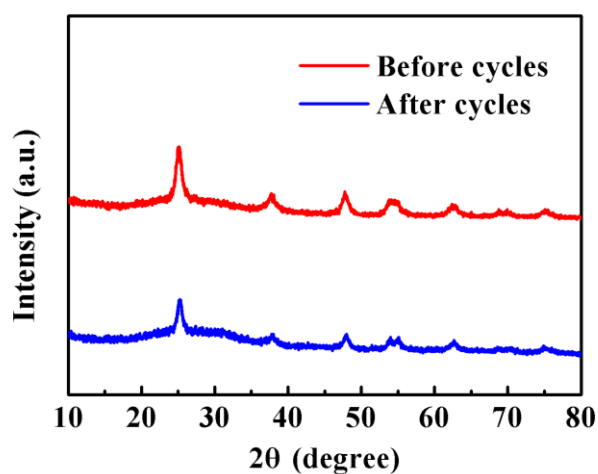


Figure S2. X-ray diffraction (XRD) of TCN IO



Figure S3. Reactor device