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Titania photonic crystal photocatalysts functionalized by graphene oxide nanocolloids

Angeliki Diamantopoulou[1], Elias Sakellis[2], George Em. Romanos[2], Spyros Gardelis[1], Nikolaos Ioannidis[2], Nikolaos Boukos[2], Polycarpos Falaras[2,*], Vlassis Likodimos[1]*

[1]*Section of Solid State Physics, Department of Physics, National and Kapodistrian University of Athens, Panepistimiopolis, 15 784, Greece*

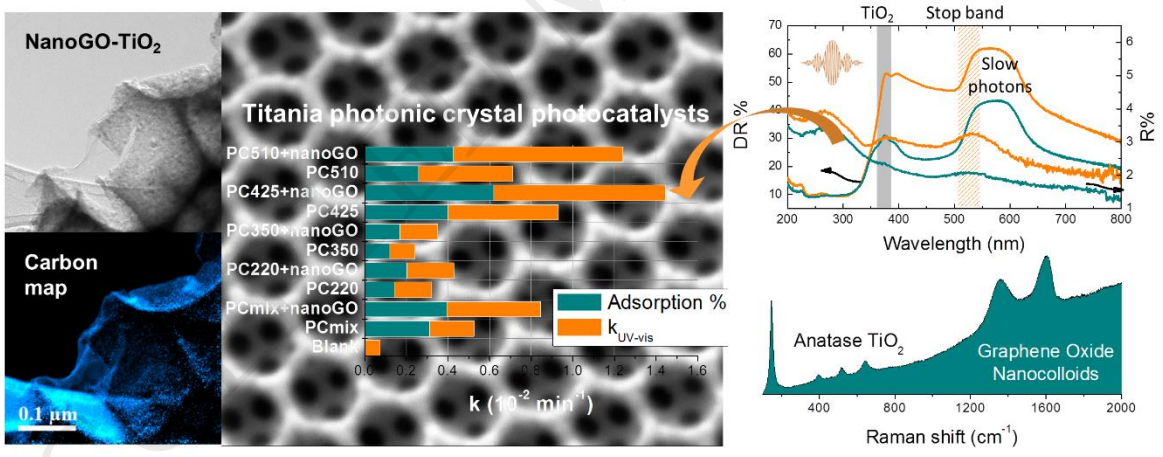
[2]*Institute of Nanoscience and Nanotechnology, National Center for Scientific Research "Demokritos", 15341 Agia Paraskevi, Athens, Greece*

**Corresponding authors*

E-mail address: vlikodimos@phys.uoa.gr; Tel.: +30 2107276824

E-mail address: p.falaras@inn.demokritos.gr; Tel.: +30 2106503644

Graphical abstract



Highlights

- Photonic band gap engineered TiO_2 inverse opals were fabricated by co-assembly.
- TiO_2 photonic films were surface functionalized by graphene oxide nanocolloids.
- NanoGO functionalization enhanced pollutant adsorption by the inverse opals.
- Slow photon amplified dye degradation was evinced for UV-Vis and visible light.
- Interfacial electron transfer improved further the photocatalytic efficiency.