

Supplementary Material

Experimental and Computational Analysis of NO_x Photocatalytic Abatement Using Carbon-Modified TiO₂ Materials

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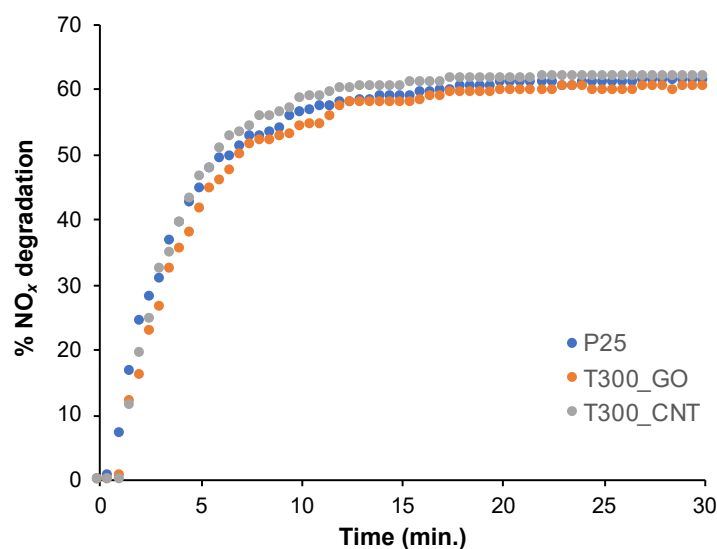


Figure S1. Photocatalytic degradation of NO_x during 30 min. under solar light on P25 (blue), T300_GO (orange) and T300_CNT (grey).

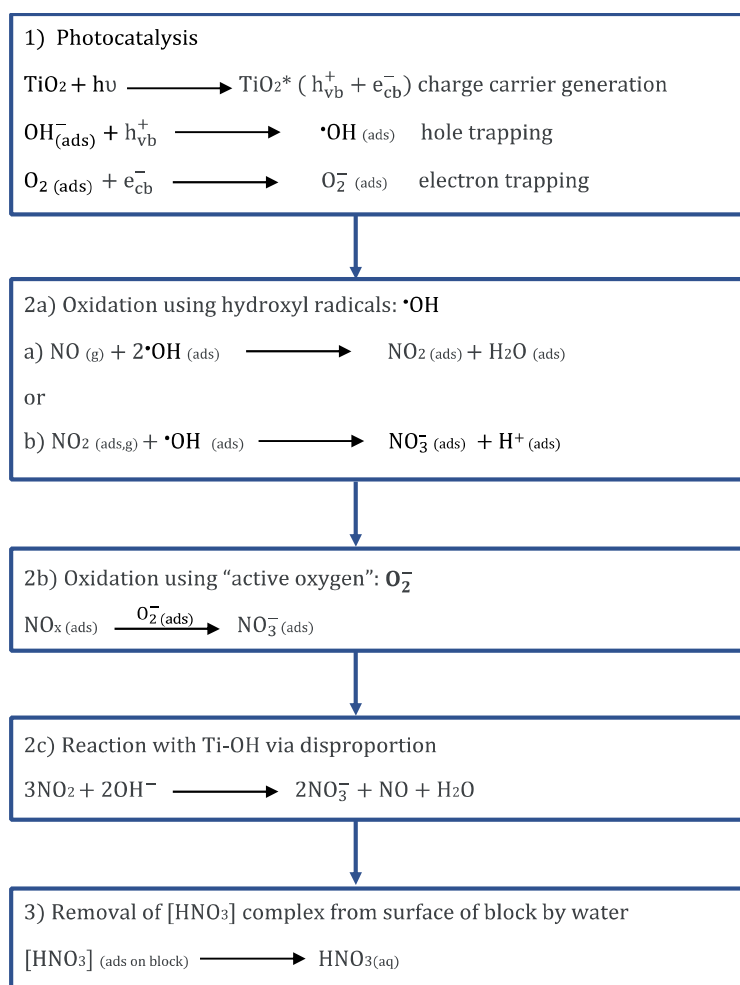


Figure S2. NO_x degradation reaction scheme (adapted from Dalton *et al.*, *Environmental Pollution*, 2002, **120**, 415-422 [1]).

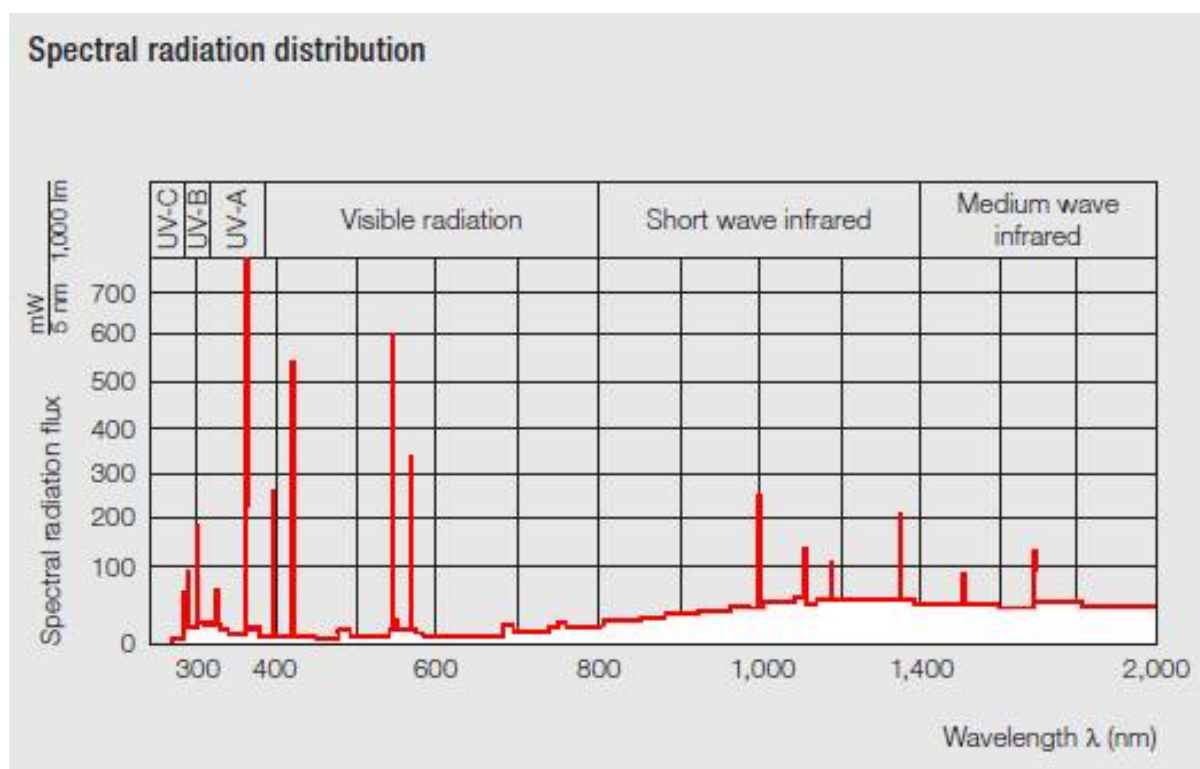


Figure S3. Osram Ultra-Vitalux, 300 W emission spectrum (adapted from <https://www.osram.com>).

Table S1. Degradation of NO and NO₂ in 10 min at a concentration around 200 ppb.

Samples	NO			NO ₂		
	C _{in} (ppb)	C _{out} (ppb)	Decrease (%)	C _{in} (ppb)	C _{out} (ppb)	Increase (%)
P25	194.00	74.00	61.9	3.00	12.00	300.0
T300_CNT	190.00	71.00	62.6	5.00	10.00	100.0
T300_GO	182.00	68.00	62.6	10.00	20.00	100.0

Table S2. Degradation of NO and NO₂ in 30 min at a concentration around 200 ppb.

Samples	NO			NO ₂		
	C _{in} (ppb)	C _{out} (ppb)	Decrease (%)	C _{in} (ppb)	C _{out} (ppb)	Increase (%)
P25	194.00	63.00	67.5	3.00	13.00	333.3
T300_CNT	190.00	64.00	66.3	5.00	10.00	100.0
T300_GO	182.00	61.00	66.5	10.00	15.00	50.0

Reference

1. Dalton, J.S.; Janes, P.A.; Jones, N.G.; Nicholson, J.A.; Hallam, K.R.; Allen, G.C. Photocatalytic oxidation of NO_x gases using TiO₂: a surface spectroscopic approach. *Environmental Pollution* **2002**, *120*, 415–422, doi: 10.1016/S0269-7491(02)00107-0.