

"The interplay between morphology and photocatalytic activity in ZnO and N-doped ZnO crystals"

Byzynski, Gabriela; Melo, Camila; Volanti, Diogo P.; Ferrer, Mateus M.; Gouveia, Amanda F.; Ribeiro, Cauê; Andrés, Juan; Longo, Elson

Supporting Information

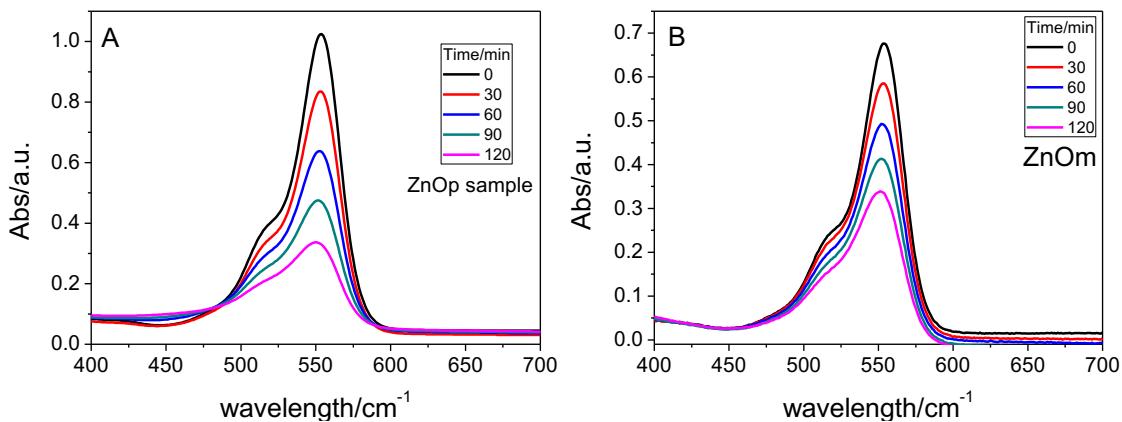


Figure S1. Uv-vis spectra of Rhod-B at different time of irradiation under UV-C illumination for ZnOp sample (A) and under visible illumination for ZnOm sample, which are similar compared with other samples.

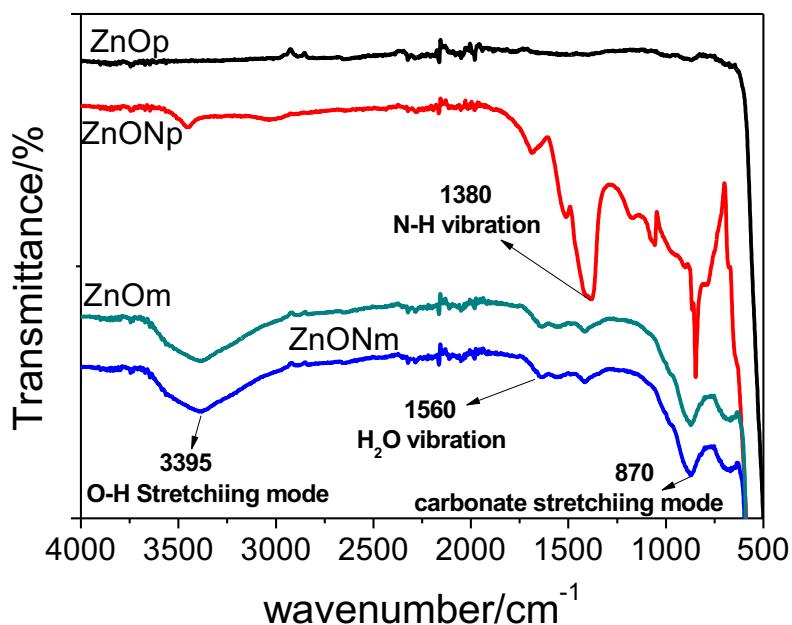


Figure S2: FTIR spectra of the samples ZnOm, ZnO:Nm, ZnOp, ZnO:Np.

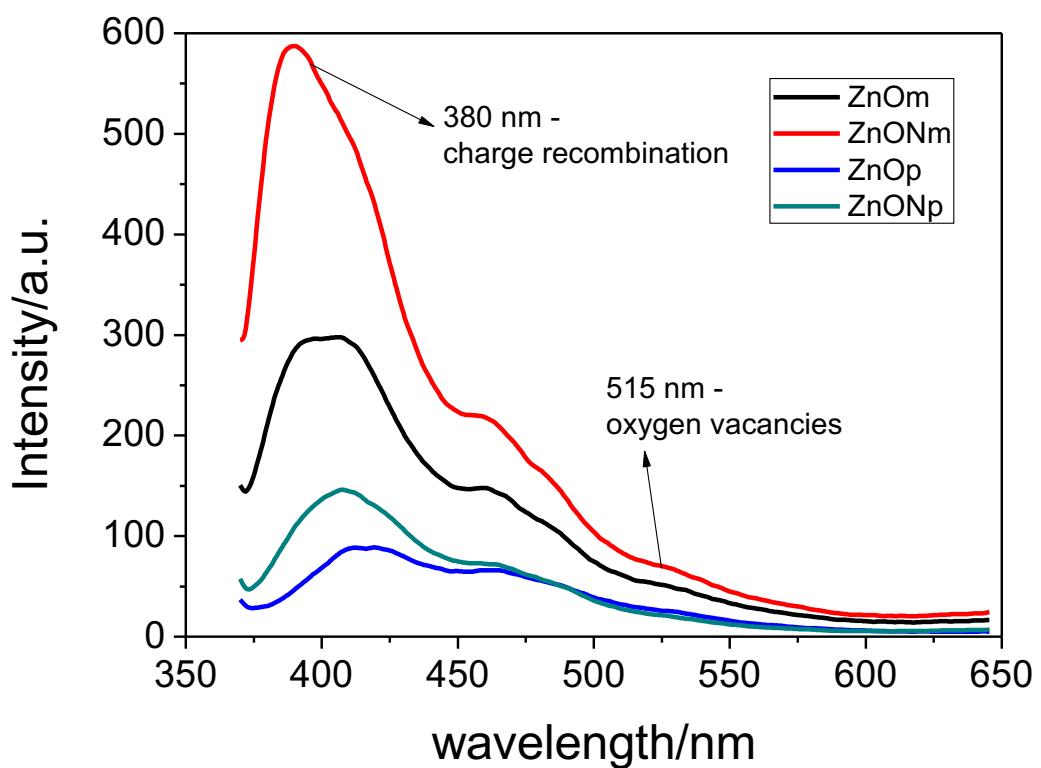


Figure S3: Photoluminescence Spectra of ZnO samples, indicating charge recombination peak and oxygen vacancies peaks for each sample.

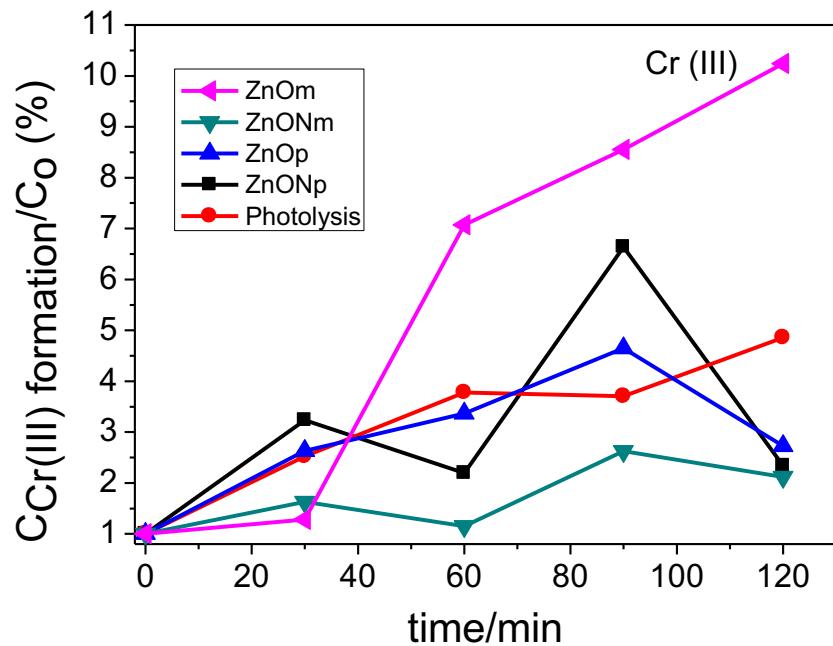


Figure S4. Photo-production for Cr(III) with ZnO samples under UV illumination.

Table S5. Rate kinetics (k' - ($\text{g}^2 \text{ m}^{-2} \text{ min}^{-1}$)) for Cr (III) formation under UVC light for different samples.

Samples	Cr (III)	
	k' UVC ($\times 10^{-3}$)	R^2
ZnOp	-3.95 ± 0.95	0.8437
ZnO:Np	-2.02 ± 0.67	0.7303
ZnOm	-18.1 ± 4.22	0.8137
ZnO:Nm	-4.71 ± 0.95	0.7281