Dopant Stability in Multifunctional Doped TiO₂'s under Environmental UVA Exposure.

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Supplementary Information

XPS modelling of principal dopant environments in our study can be found below. Tungsten and Tantalum are easily reduced to lower oxidation states in the presence of the argon gun used to depth profile each sample thus this is accommodated within our analysis. Phosphorus 3- and 5+ display little change in the presence of an argon gun with no extra states introduced as a result. The graphs given below as example (surface) graphs to give an indication as to how each environment was modelled. Binding Energy values were calculated relative to adventitious carbon and all peak environments confined with relative peak highs and FWHM's



Figure 1: Modelled XPS environments for Tantalum



Figure 2: Modelled XPS environments for Tungsten



Figure 3: Modelled XPS environments for Phosphorus