Electronic Supplementary Material (ESI) for RSC Advances.

Optical Role of the Thin Metal Layer in TiO_x/Ag/TiO_x Transparent and Conductive Electrode for Organic Solar Cells

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Supplementary Information

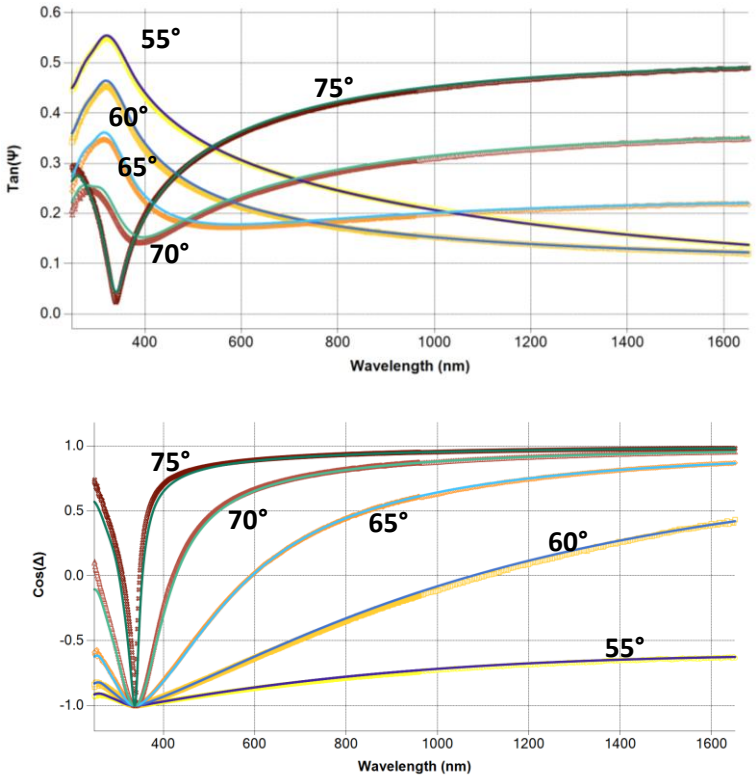

Figure S1- Comparison of the measured and obtained from an ellipsometric model (mixed of Tauc-Lorentz and Gauss laws) values of tan(Ψ) (top) and cos(Δ) (bottom) for a sample of 32 nm of TiO_x deposited on glass versus the electromagnetic spectra [250-1650] nm for five different incident angles (55° to 75°).

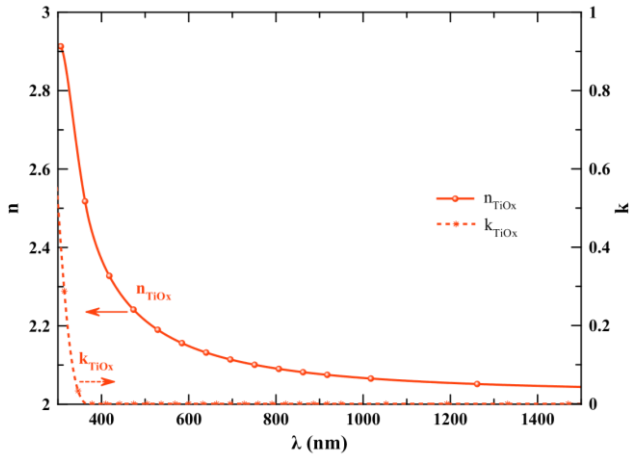

Figure S2- Optical constants n (left y-axis) and k (right y-axis) of the titanium dioxide versus wavelength.

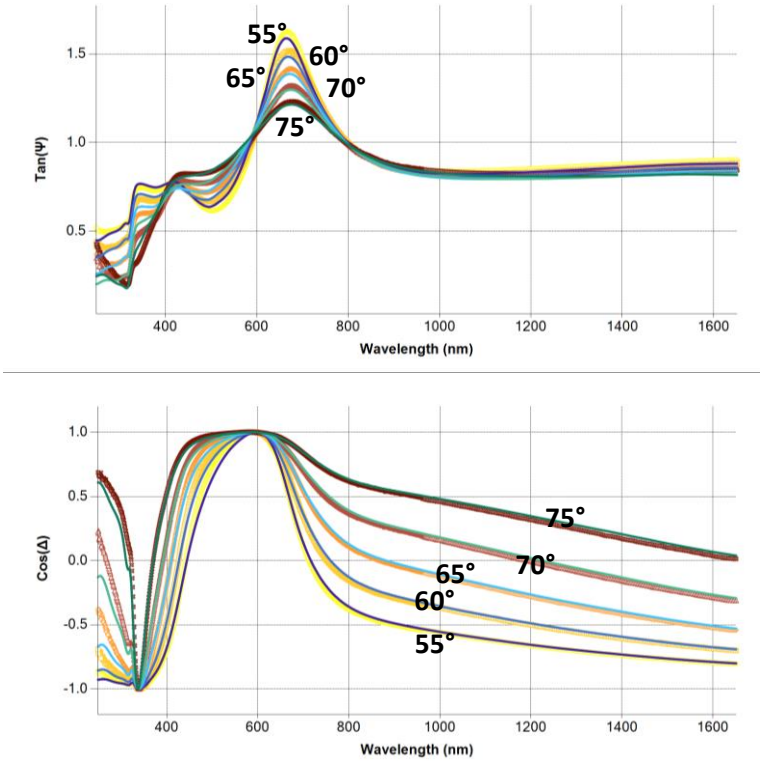

Figure S3- Comparison of the measured and obtained from an ellipsometric model values of tan(Ψ) (top) and cos(Δ) (bottom) for a Glass | TiO_x (37 nm) | Ag (13 nm) | TiO_x (42 nm) sample versus the electromagnetic spectra [250-1650] nm for five different incident angles (55° to 75°).

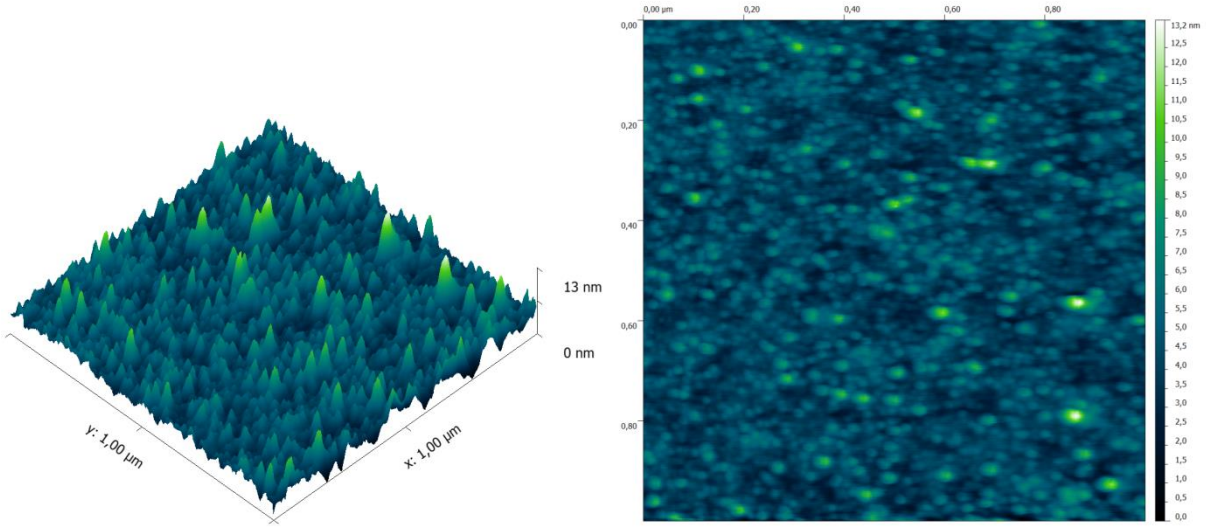

Figure S4- 2D (right) and 3D (left) images of the surface roughness of a 32 nm-thick monolayer of TiO_x deposited on glass with a RMS roughness of 1.14 nm.

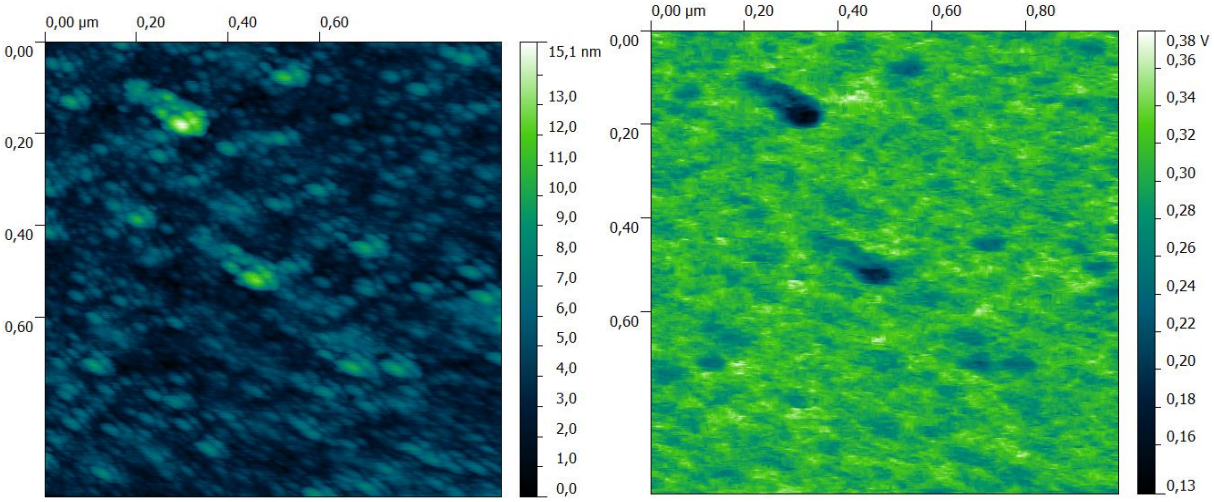

Figure S5- 2D images of the surface roughness (left) and surface potential (right) for the Glass | TiO_x (37 nm) | Ag (13 nm) | TiO_x (42 nm) sample (same as Figure S3 and S6) with a RMS roughness of 1.58 nm and a work function of 4.55 eV.

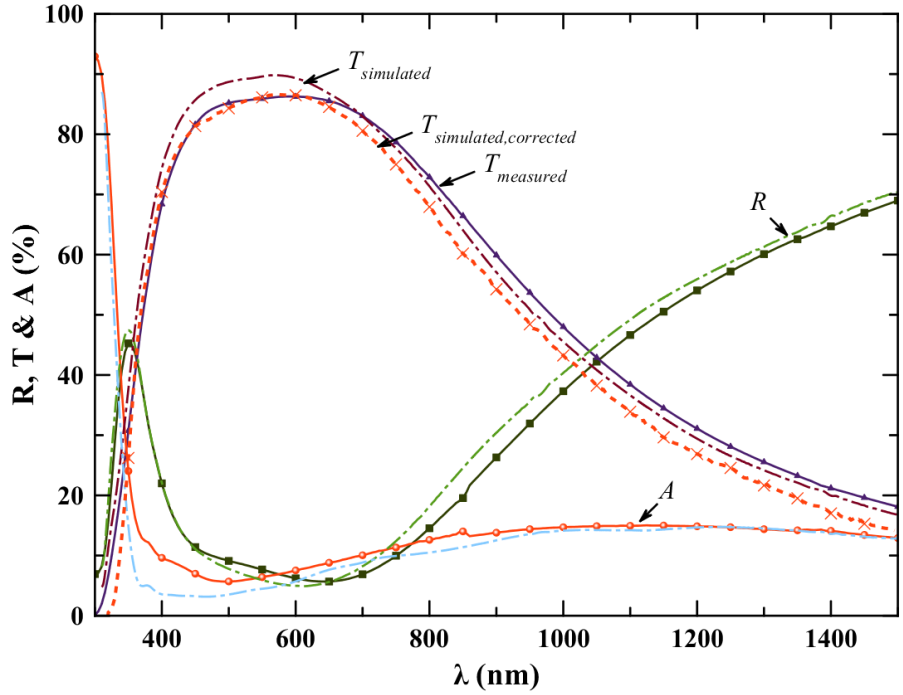

Figure S6 – Measured, simulated and corrected simulated optical properties (R, T & A) for the Glass | TiO_x (37 nm) | Ag (13 nm) | TiO_x (42 nm) sample (same as Figure S3 and S5) versus wavelength of the incident light.