

Supporting Information

Manuscript title: TiO₂/Nanoporous Silicon, Hybrid Contact for Heterojunction Crystalline Solar Cell

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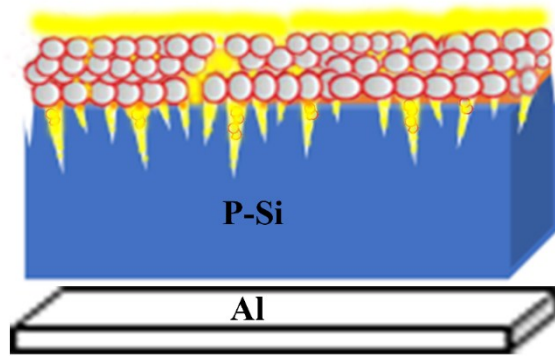
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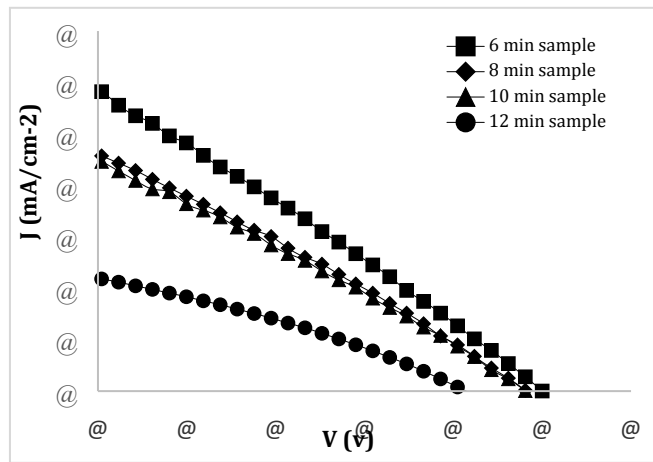
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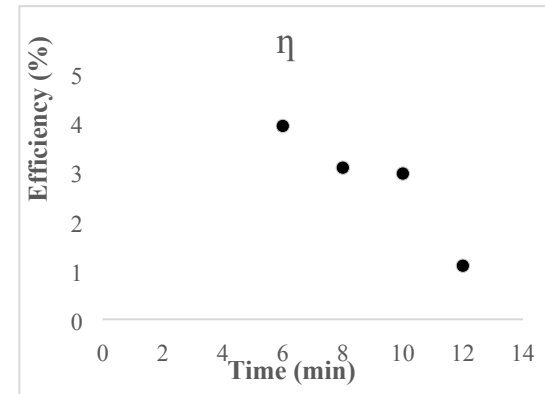
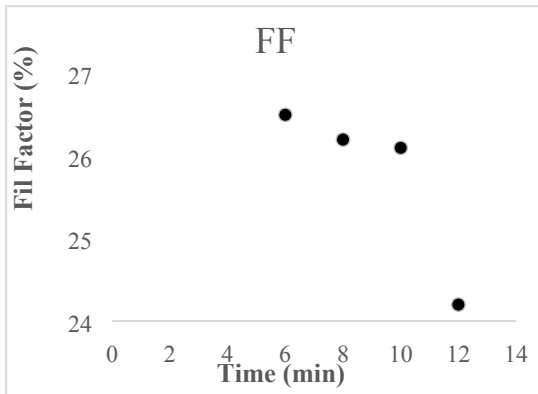
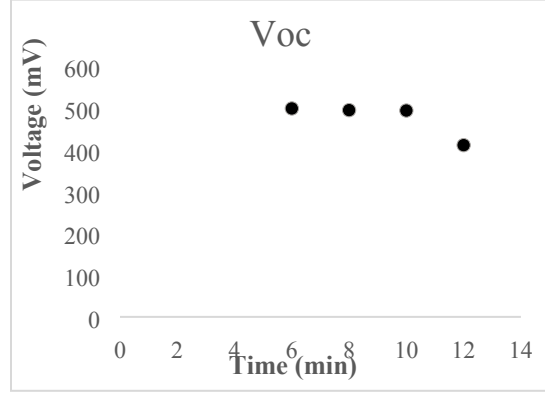
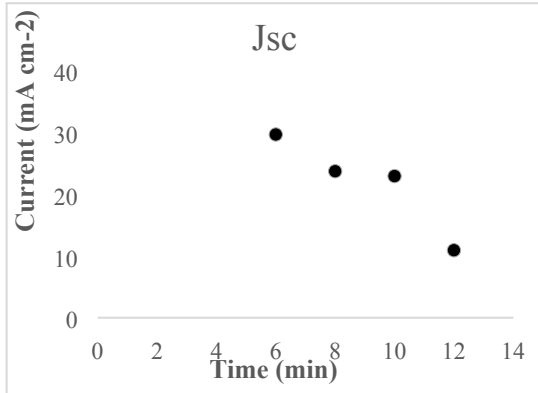
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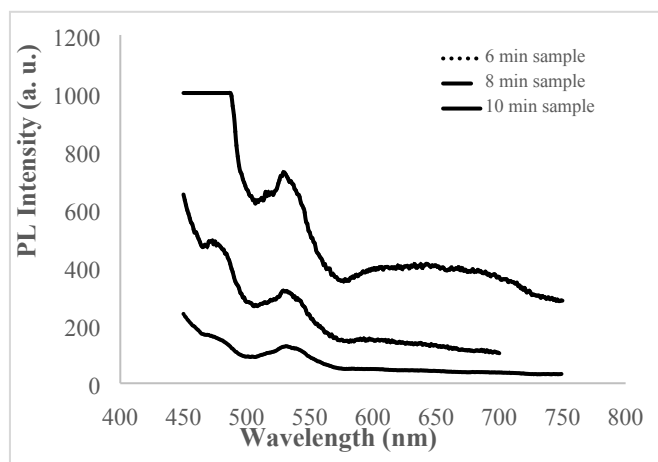
S1. Hybrid solar cell; n-type semiconductor (brown) has been kept just in the base of pores sidewall; porous structure has provided desirable substrate for TiO_2 nanoparticles (circle) immobilization also channels to p-type silicon; ITO (yellow) may diffuse through the channels; local p-n heterojunction have formed through minor diffusion of TiO_2 nanoparticles to the p-type pores.



S2. Typical J-V measurements for ITO/TiO₂/PPS/PS solar cells with different duration of anodization.



S3. Comparison of photovoltaic parameters in various anodization time.



S4. PL measurement (excitation wavelength= 400 nm)