Electronic Supplementary Material (ESI) for RSC Advances

Supporting information

Acidic and alkaline shock pretreatment to enrich acidogenic biohydrogen producing mixed culture: Long term synergetic evaluation of microbial inventory, dehydrogenase activity and bio-electro kinetics

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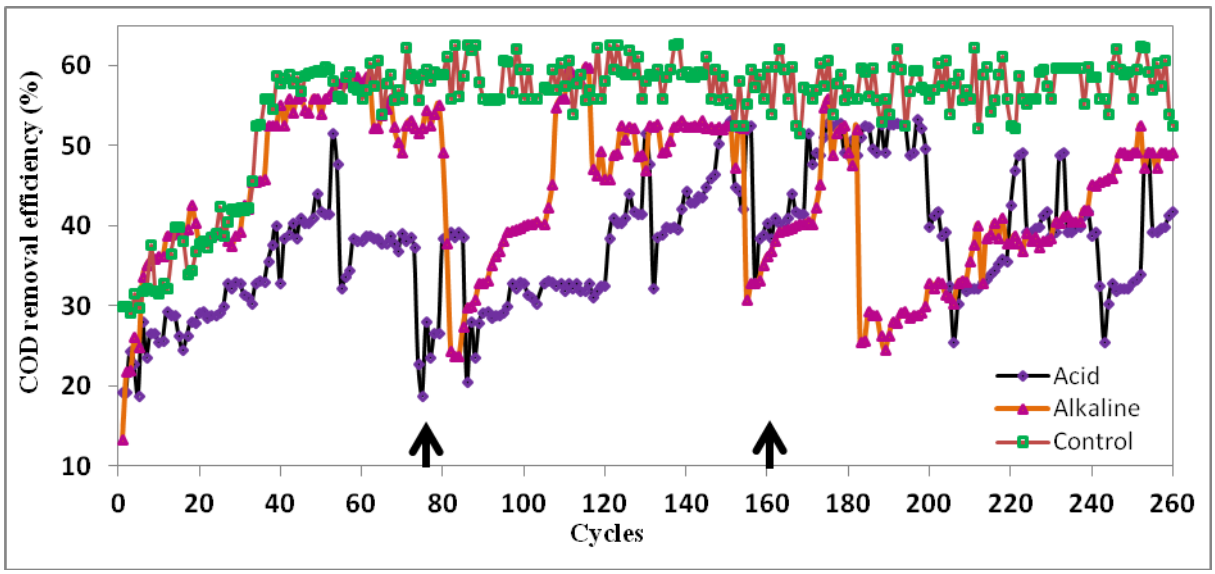
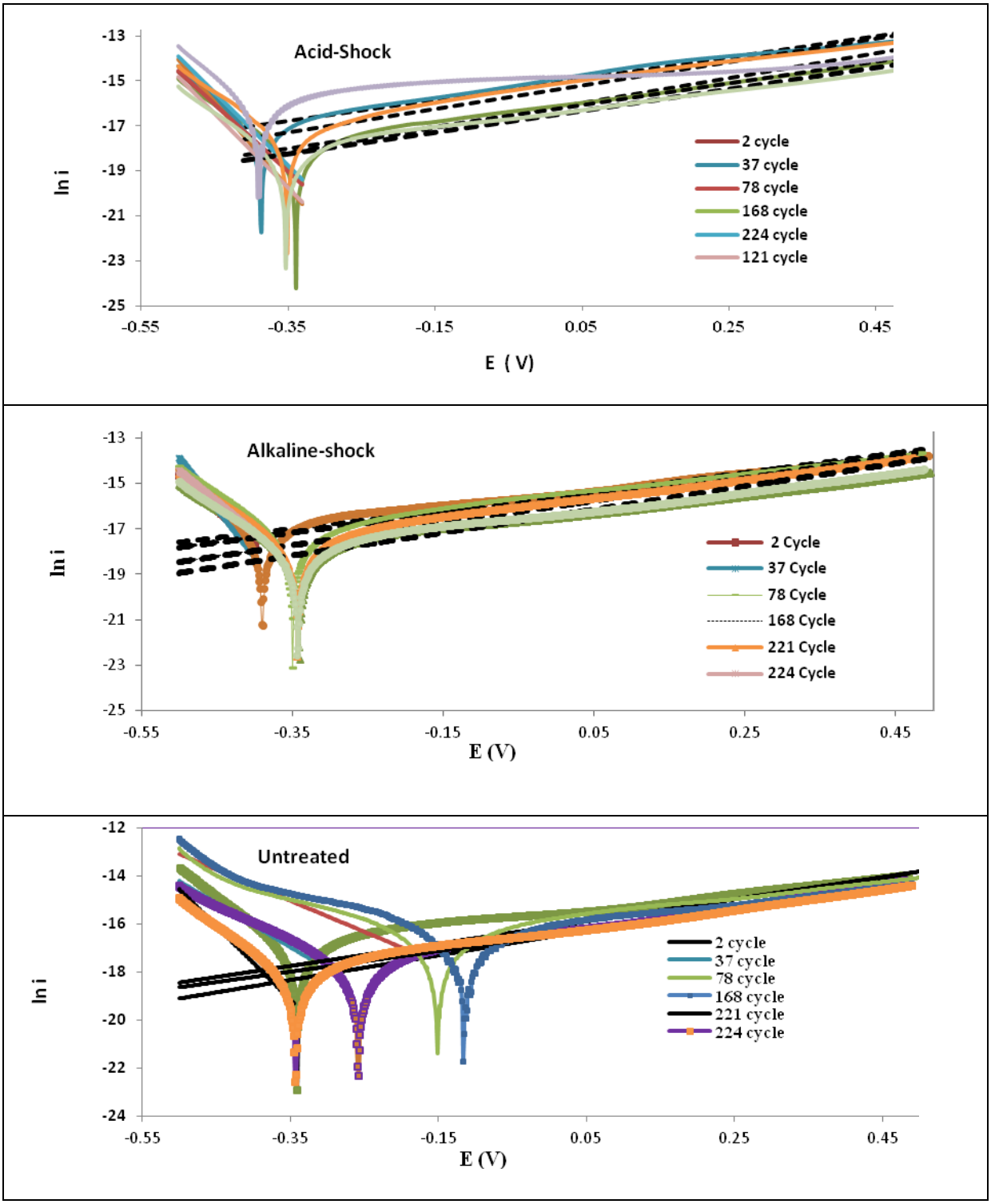
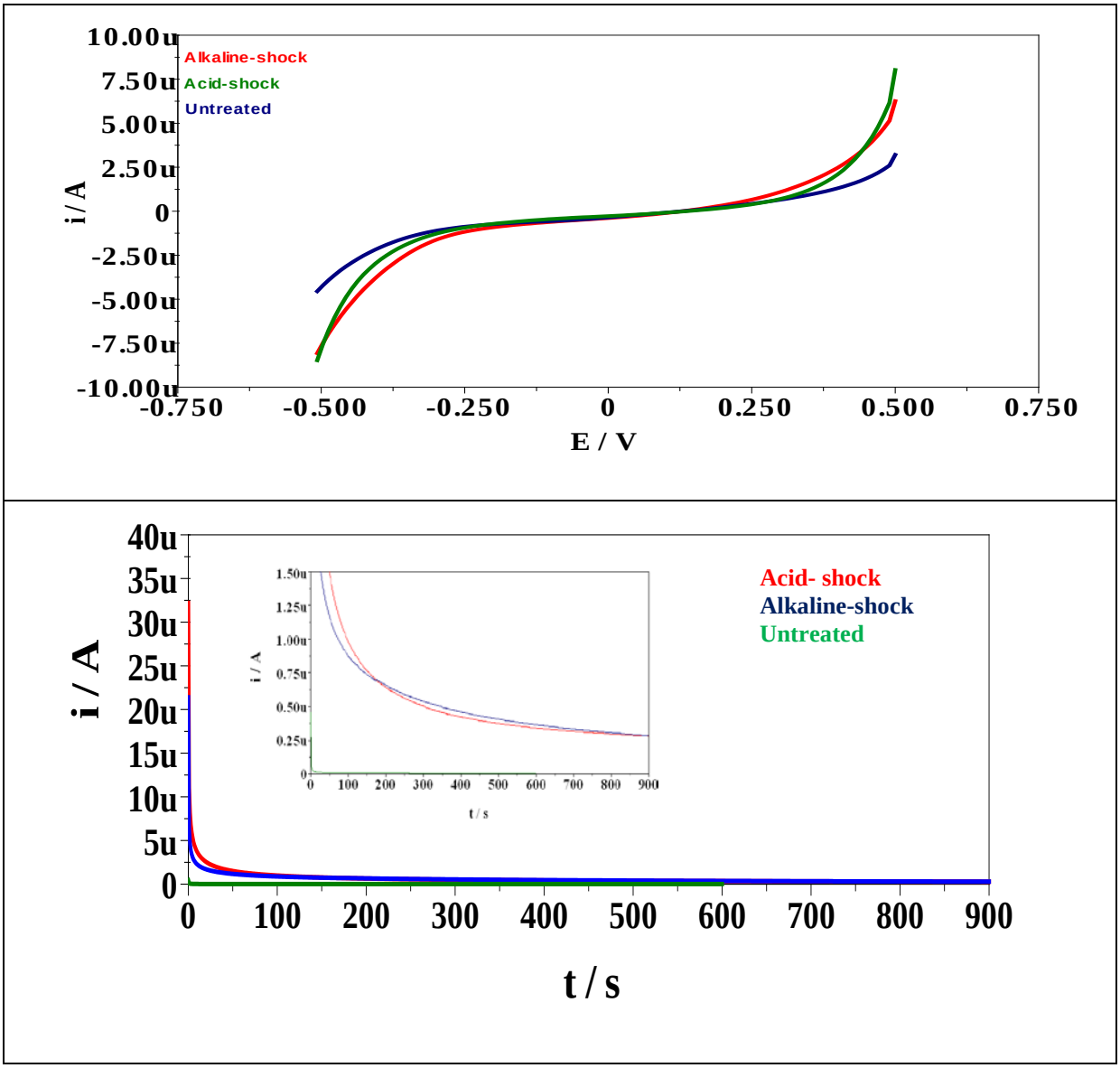


Sfig 1: Substrate degradation pattern as COD removal efficiency, substrate degradation rate and Specific hydrogen yield (SHY) of acid-shock, alkaline-shock and untreated (control) anaerobic inoculum with the function of reactor operation time (↑ indicated application of pretreatment).



Sfig 2: Tafel analysis with respect to experimental variations studied.



Sfig 3: Extended LSV (polarizing between -0.5 and 0.5 V) and CA analysis (at a constant external potential of 1.2 V) during the operation for acid, alkaline, untreated (Control).