

Performance of Microbial Fuel Cell incorporated with Constructed Wetland in Pilot-scale



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Introduction



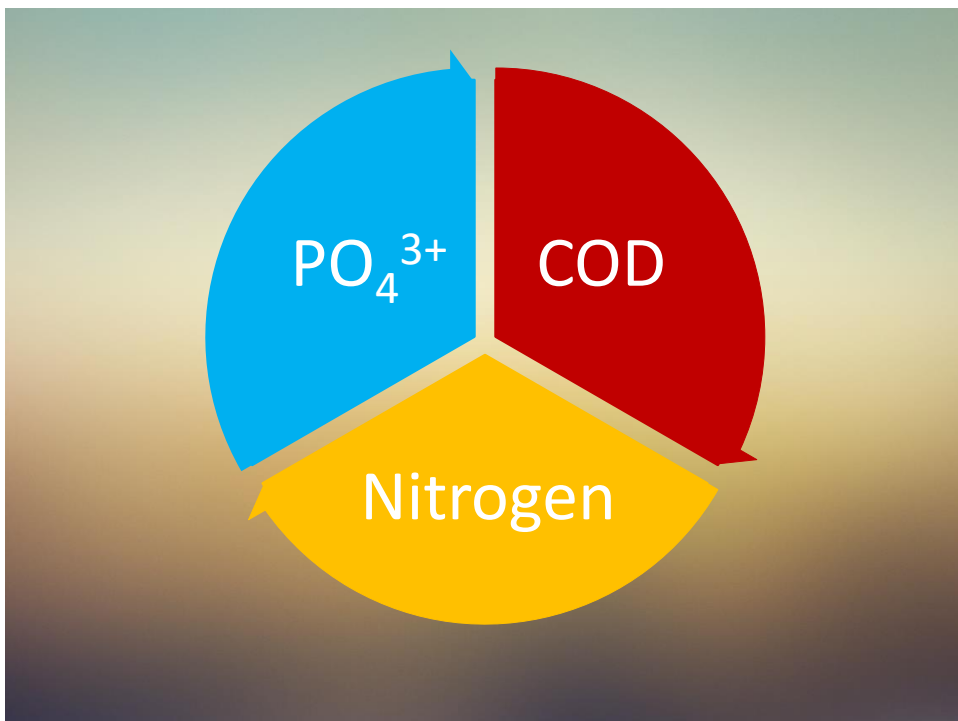
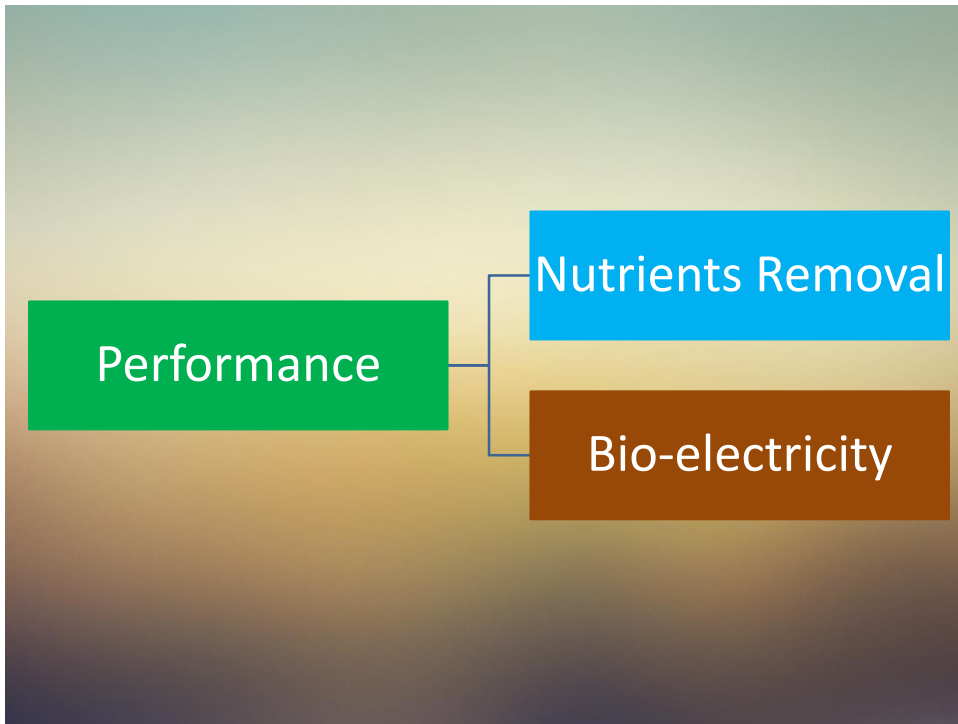
Equipment

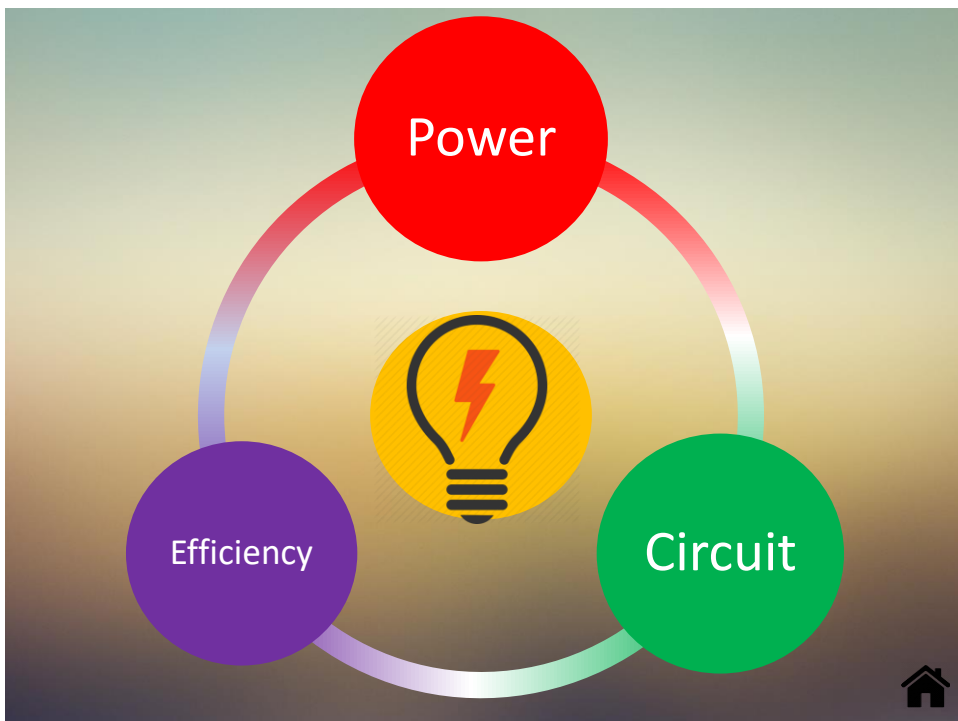
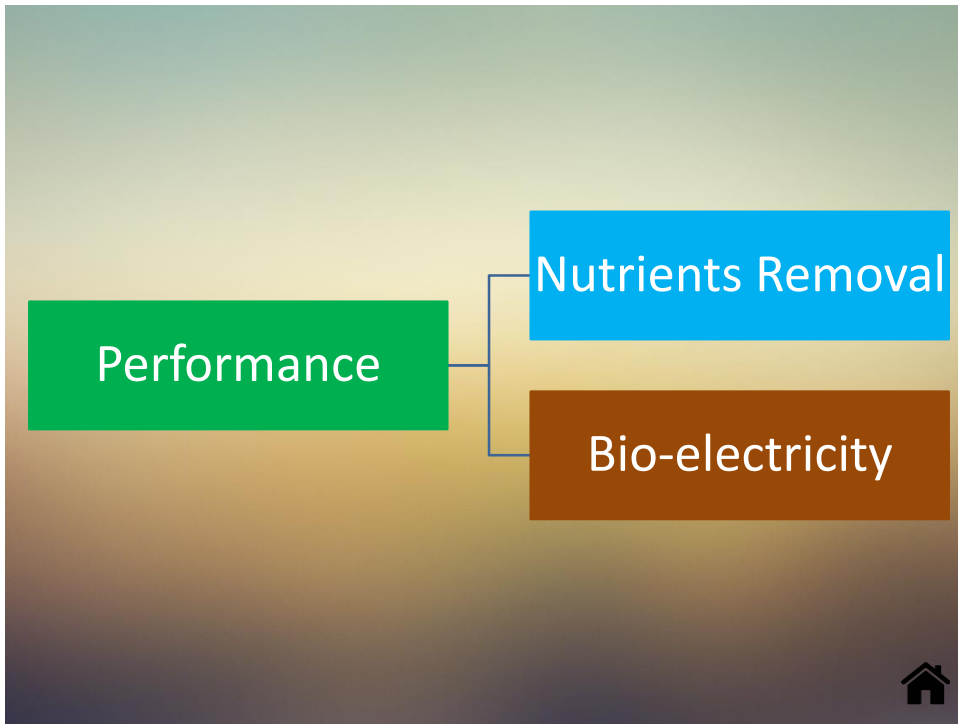


Performance



Conclusions & Outlook





Conclusions

- MFC promoted the performance of CW by increasing 20% of COD and 97% of ammonium removal
- Desirable cathode condition: better air and water contact on the surface of cathode

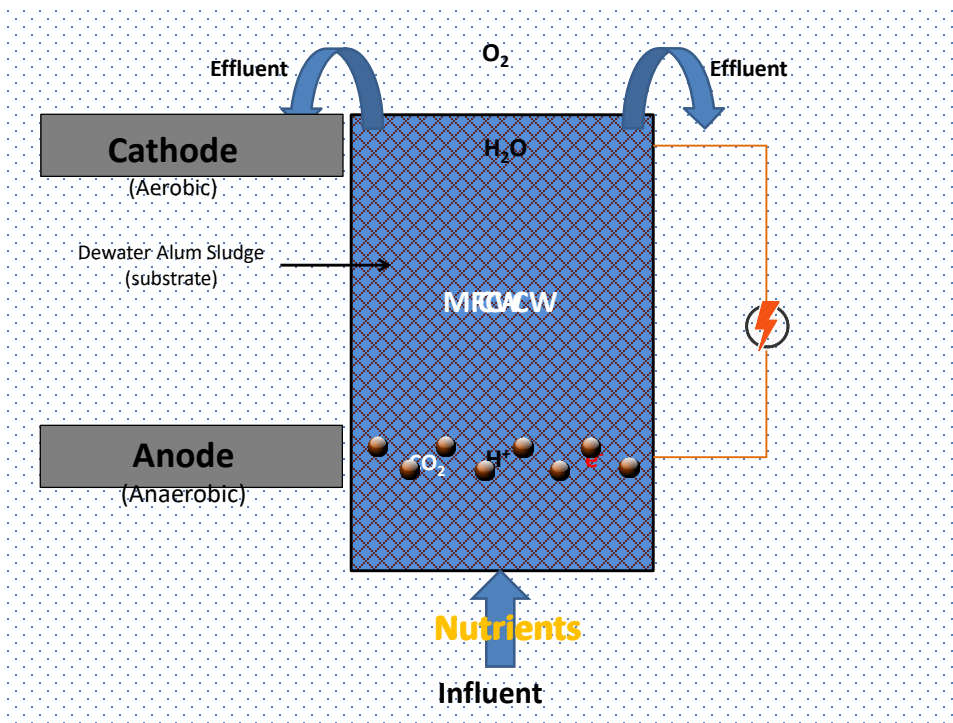
Outlook

- Increase the volume of anodes
- Narrow the distances of anodes to cathode
- Introduce novel of separators

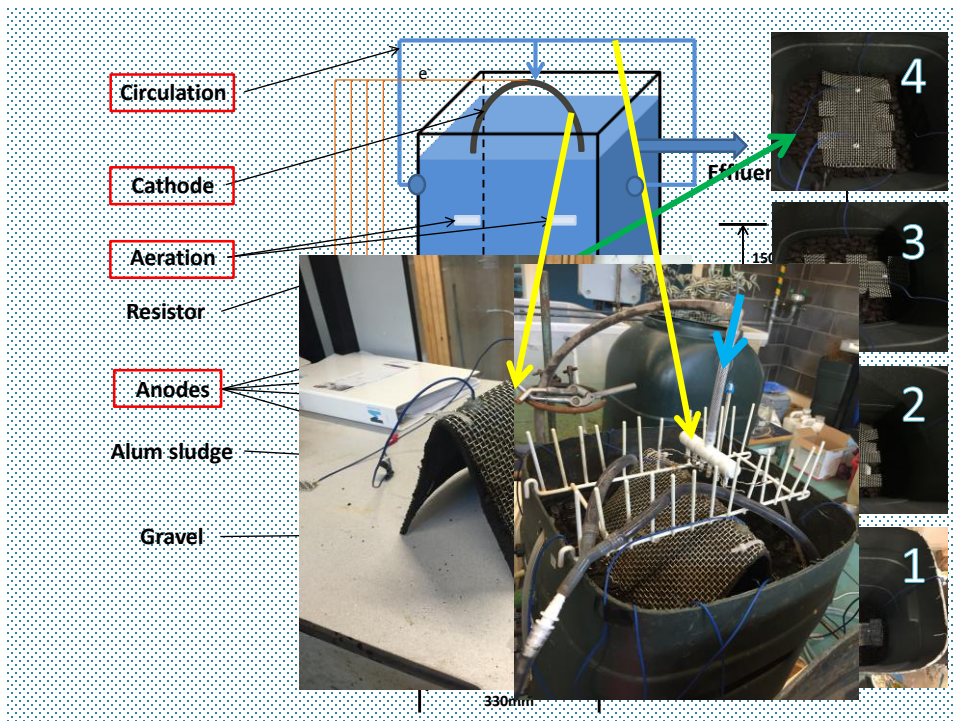
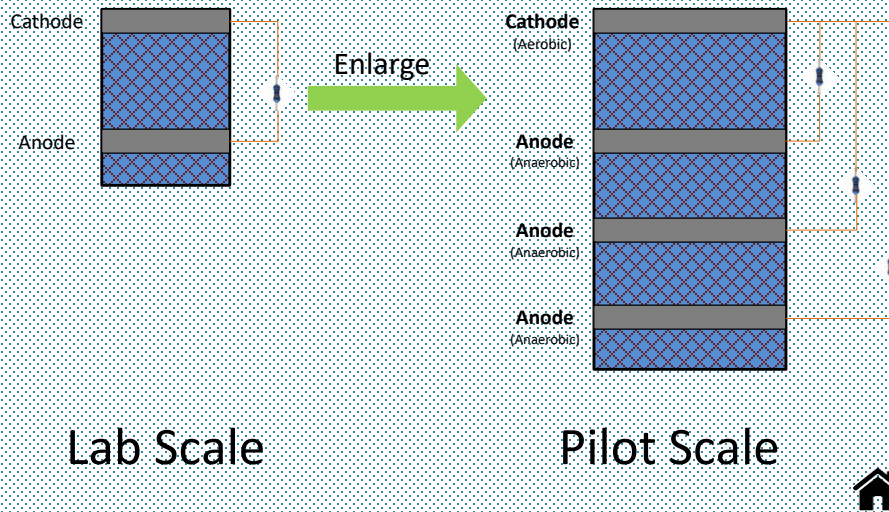
Thank You!

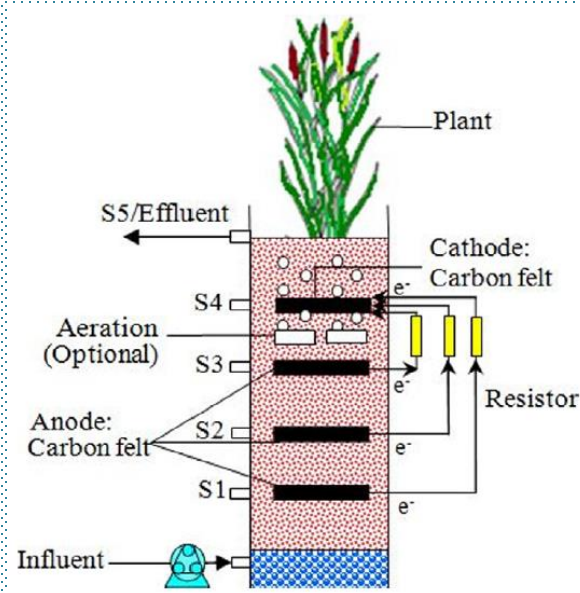


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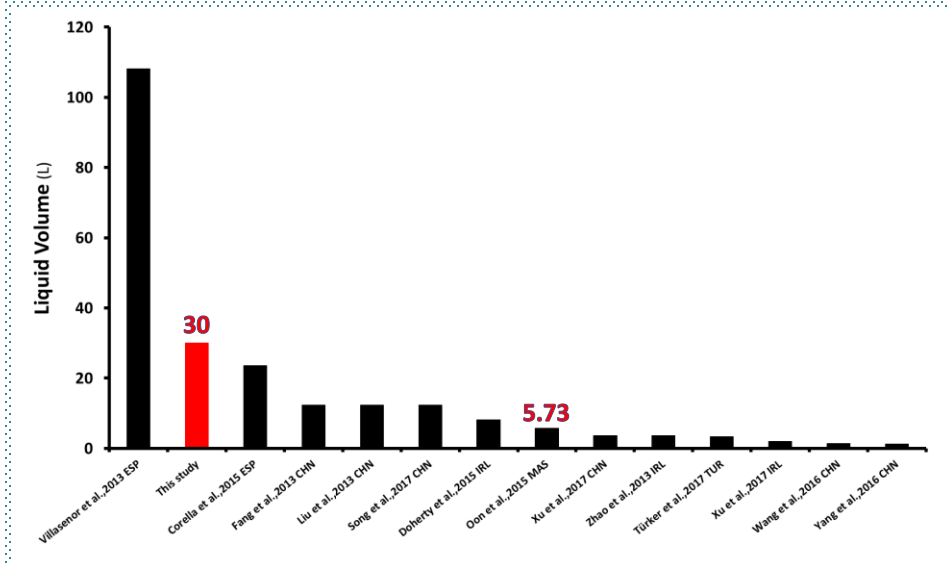
MFC-CW Enlargement



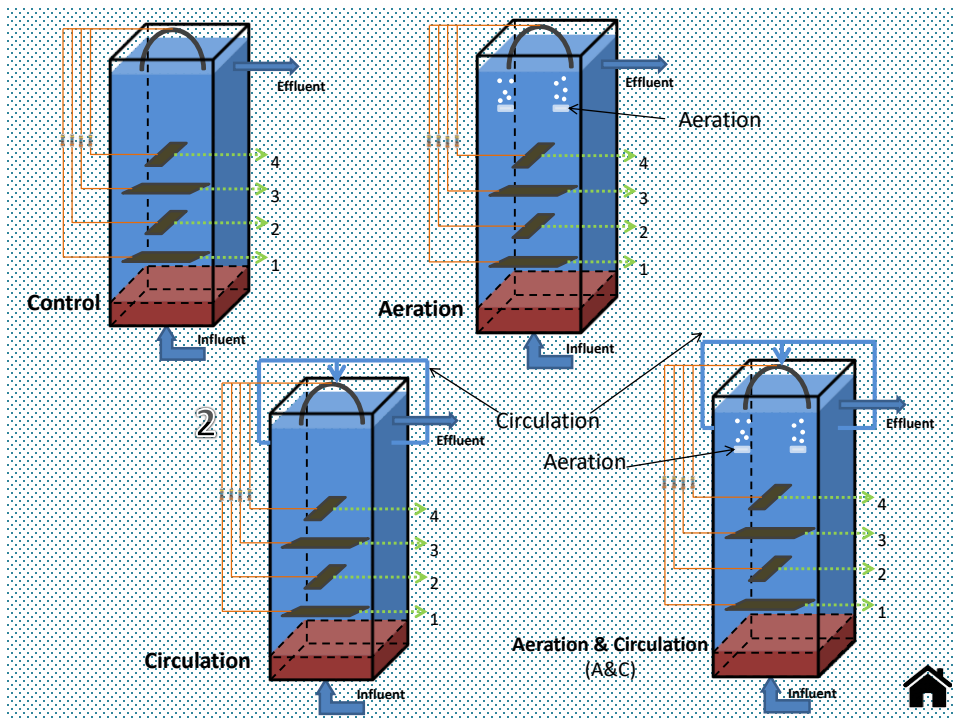
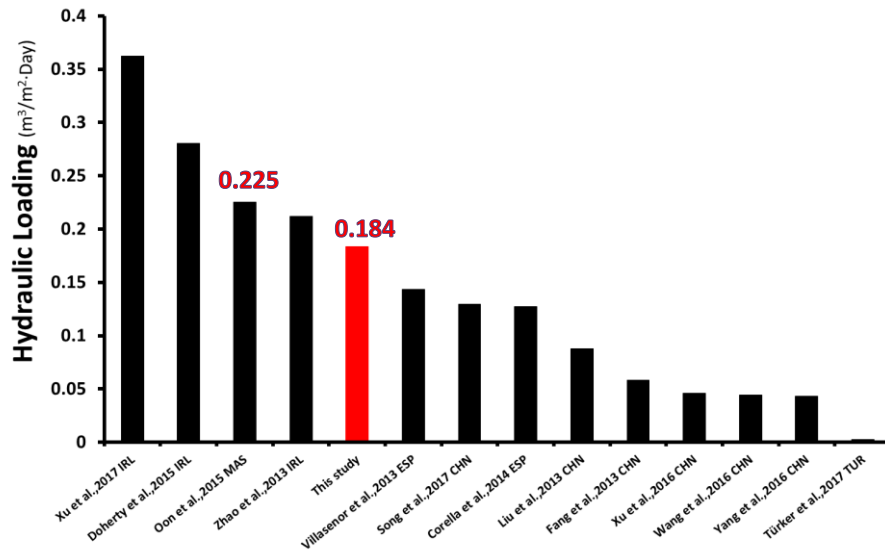


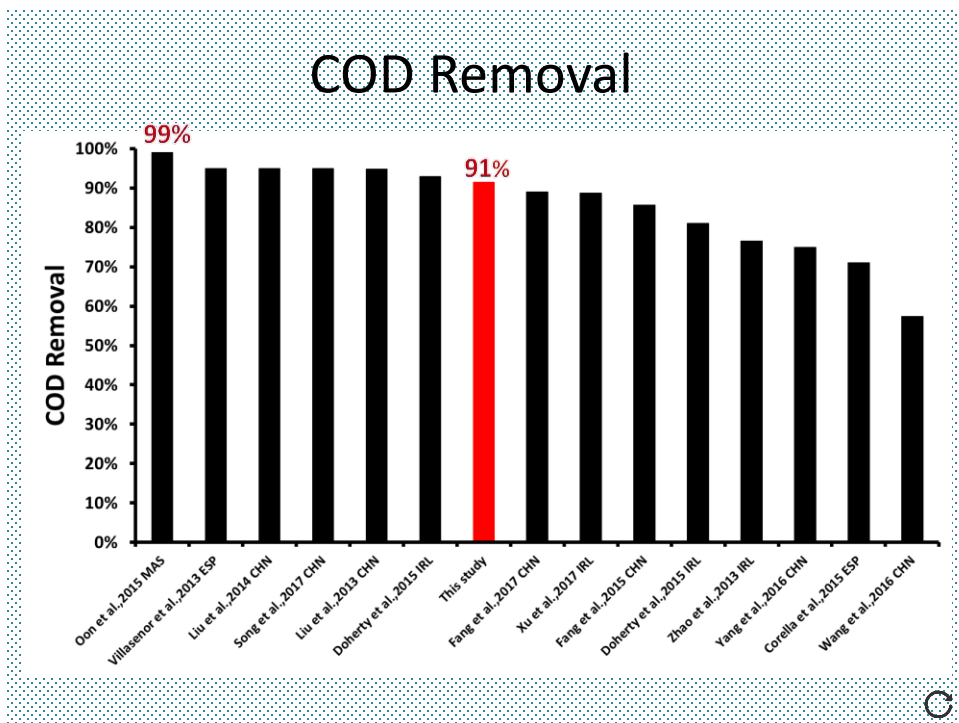
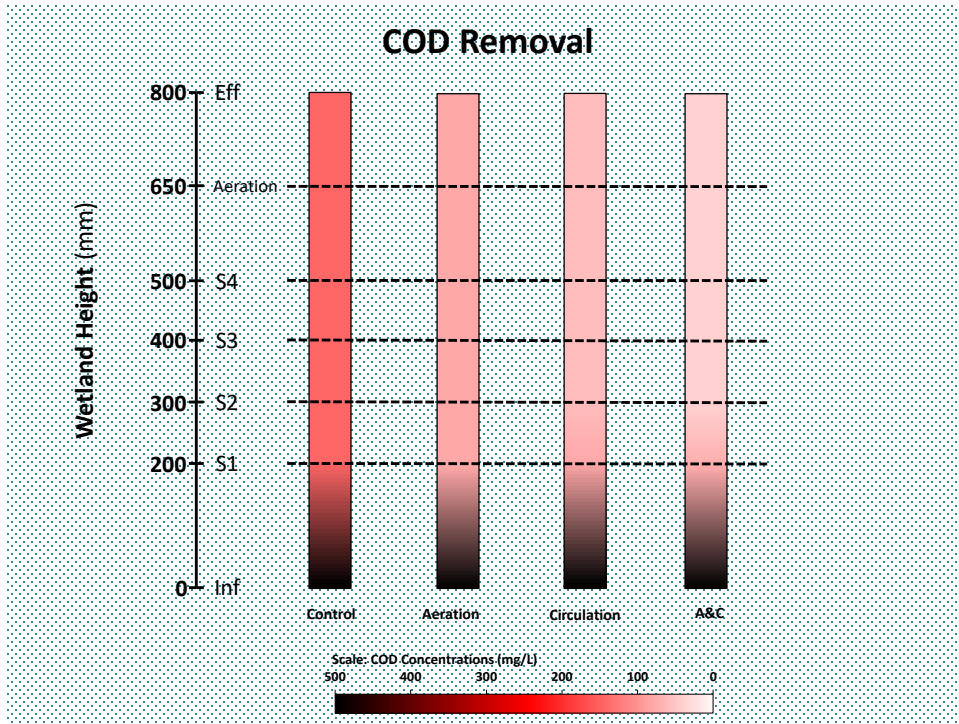
Oon et al., 2015 Malaysia

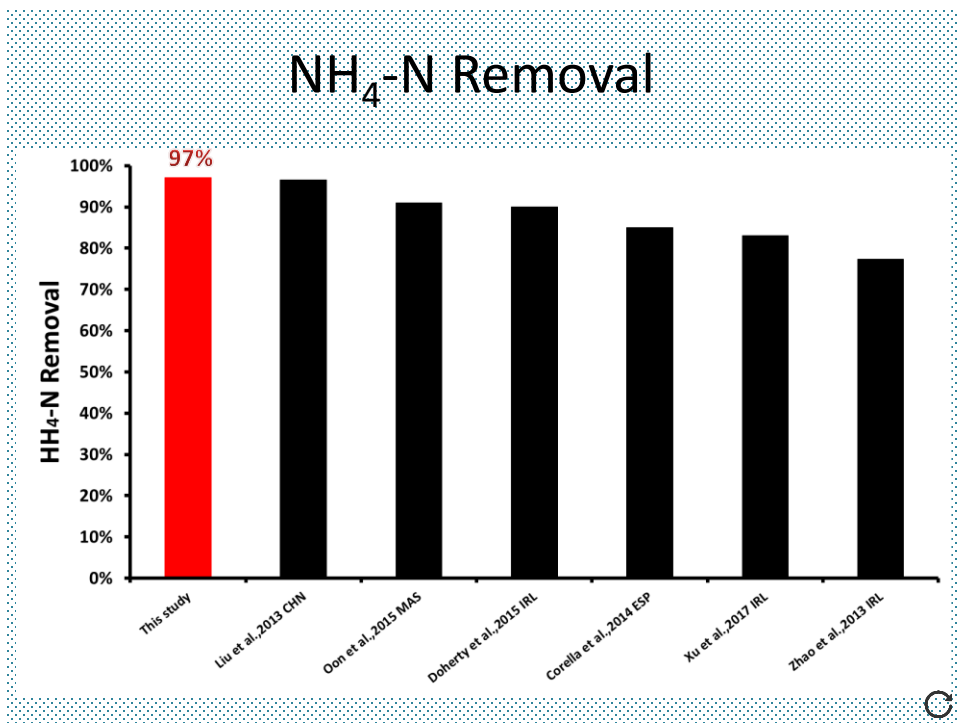
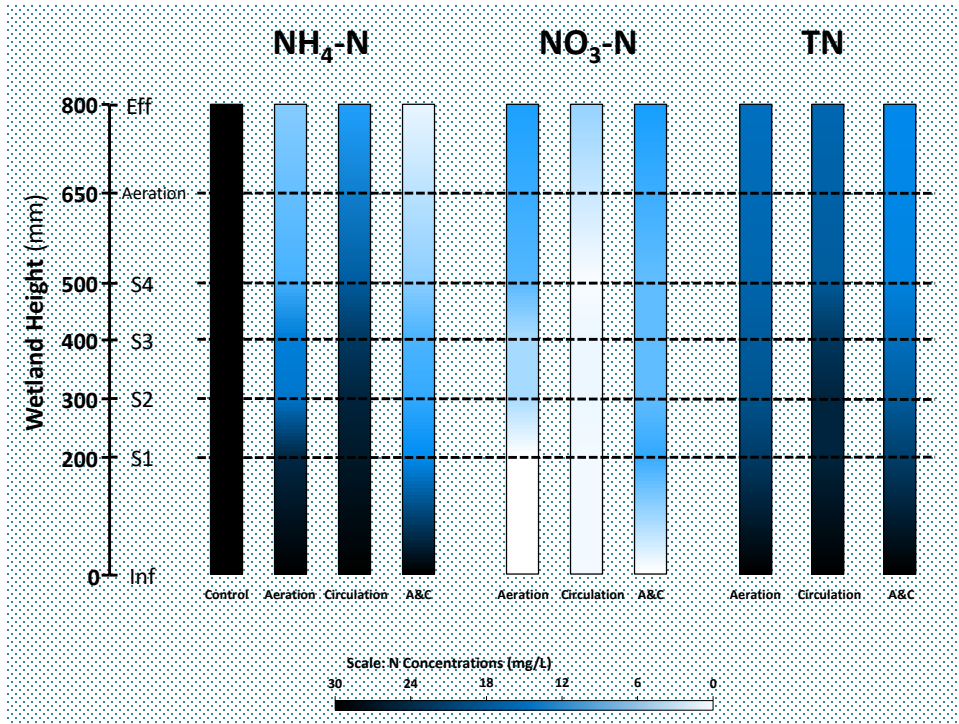
Net Liquid Volume

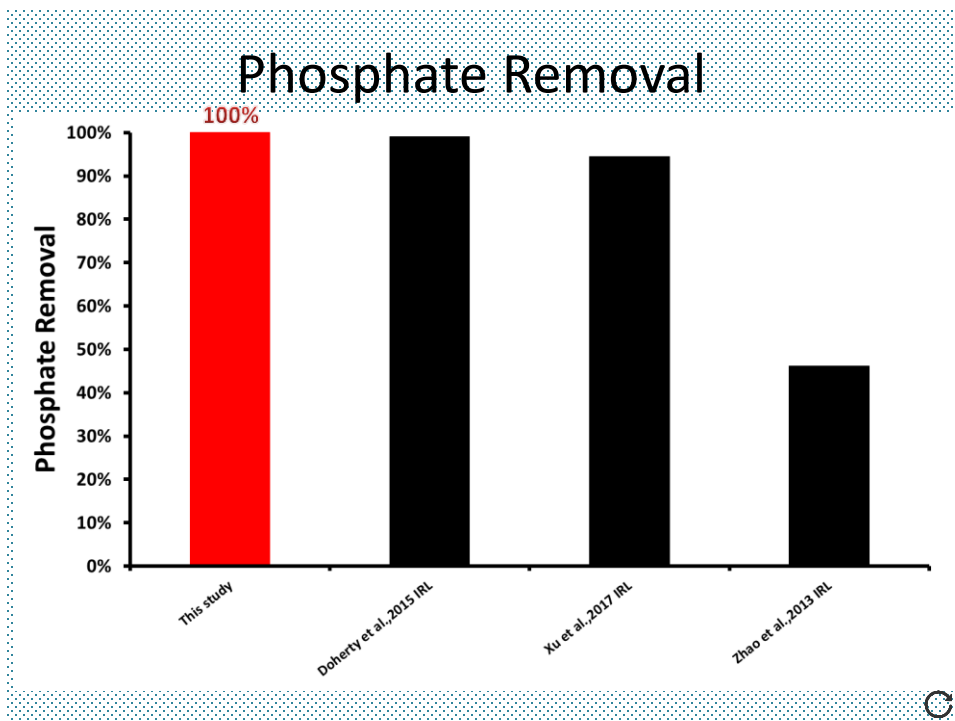
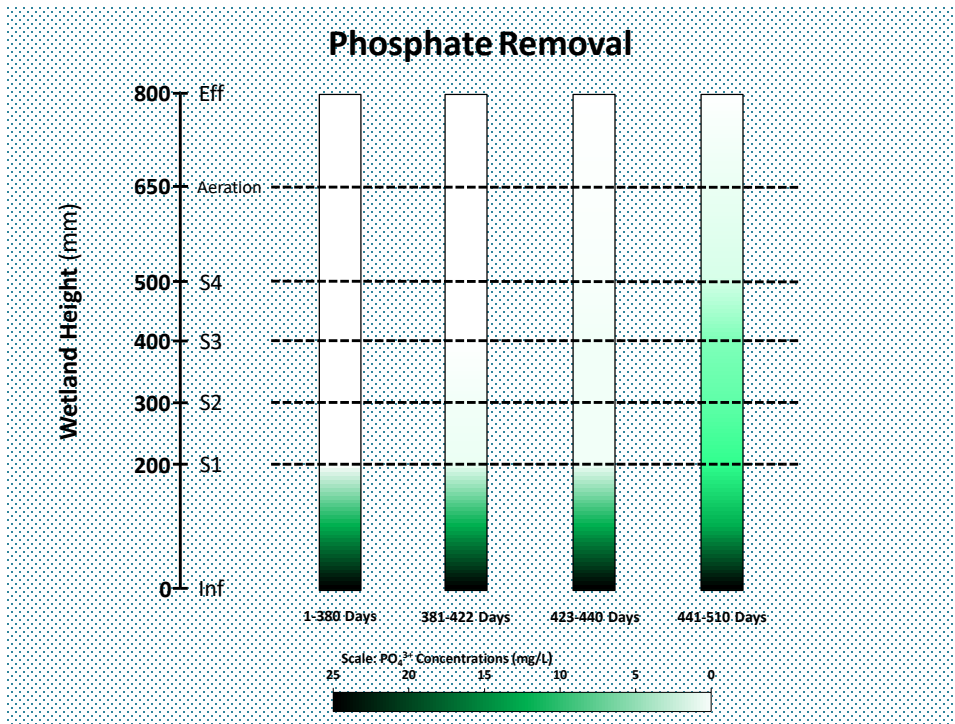


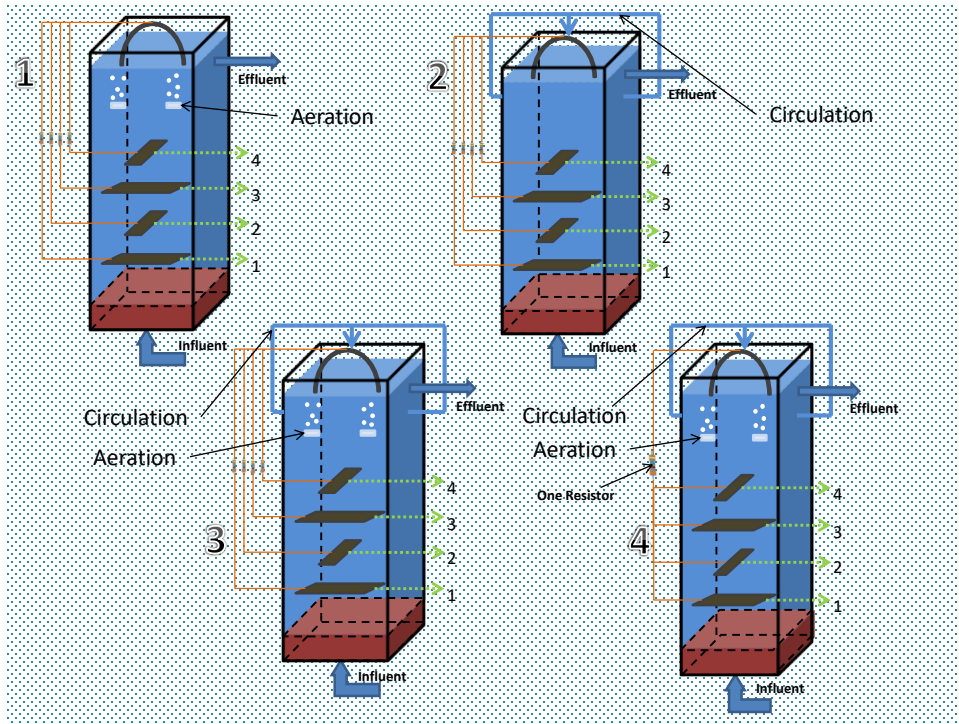
Hydraulic Loading



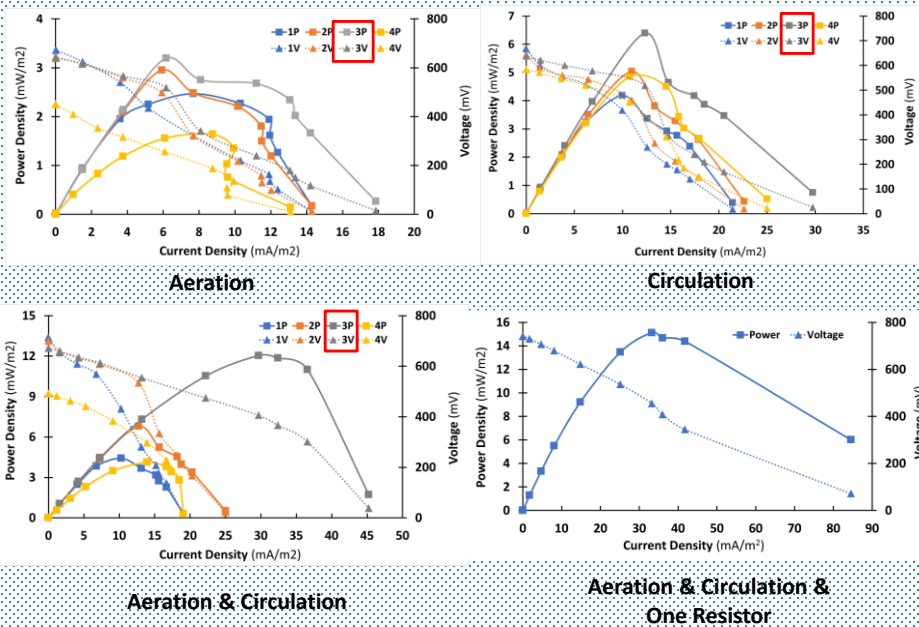




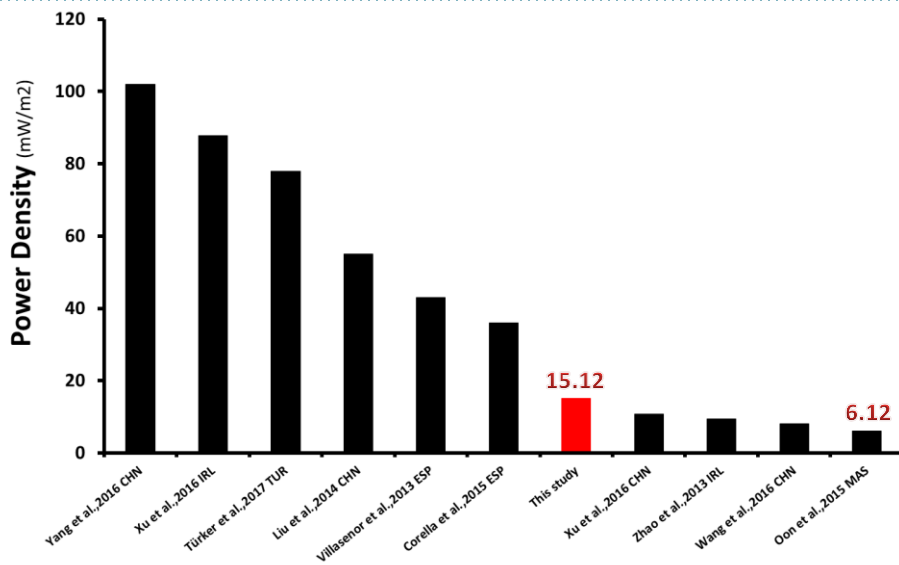




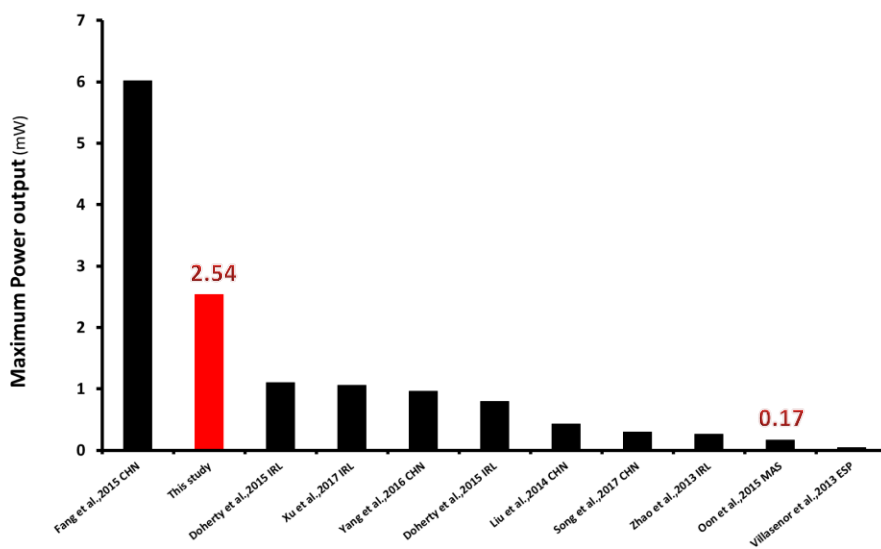
Polarization Curves



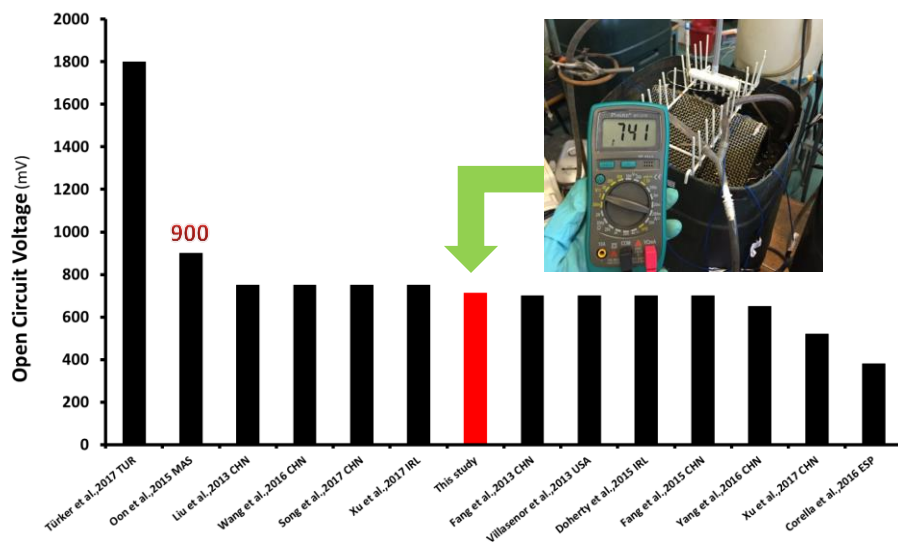
Power Density



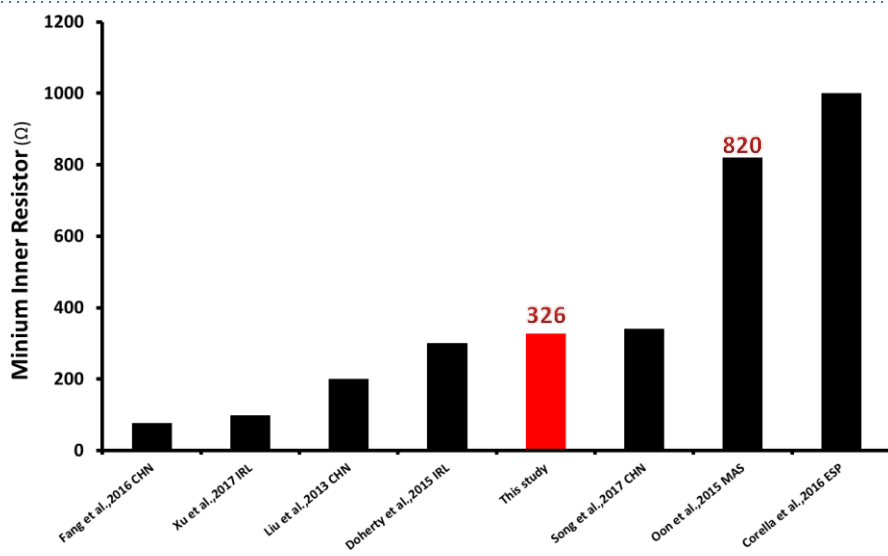
Absolute value of power generation



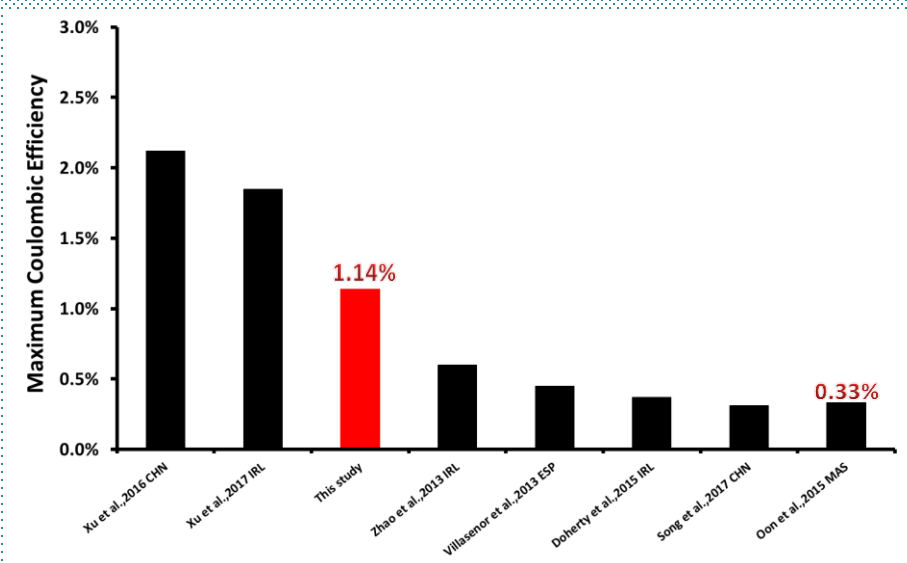
Maximum Open Circuit Voltage



Minimum Inner Resistor



Maximum Coulombic Efficiency



Maximum Normalized Energy Recovery

