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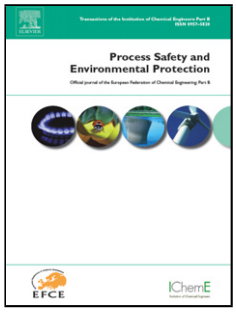

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Comparison of different electrode materials and modification for power enhancement in benthic microbial fuel cells (BMFCs)

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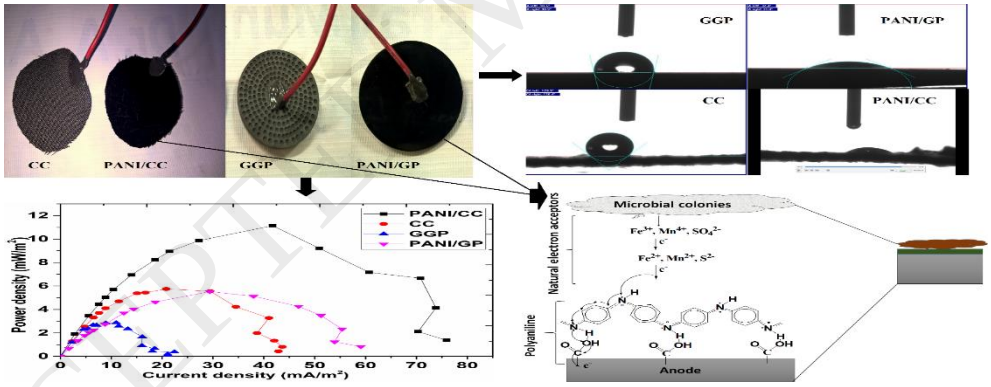
Graphical Abstract



Highlights

- Surface treated and surface coated electrodes were compared.
- Grooved and acid treated anode and polyaniline coated anode were compared.
- Kinetic activity of PANI/CC was 376 times higher than CC anode, while PANI/GP possesses 1.8 times more kinetic activity than GGP.
- Enhancement in power generation was successfully achieved by recharging with acetate.