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(57) Abstract :
Abstract Title: Multi-Anodic Chamber Constructed Wetland-Microbial Fuel Cell for Simultaneous Treatment of Wastewater and Electricity Generation The present invention relates to a wetland-microbial fuel cell system adapted for simultaneous waste water treatment and electricity generation comprising: plurality of separate multi-anodic chambers based constructed wetland-microbial fuel cell CW-MFC reactors operatively connected to a cathodic chamber; said multi-anodic chamber based CW-MFC reactors separated cathodic chamber including separating earthen cation exchange membranes (CEMs) with said multi-anodic chamber based CW-MFC reactors including electroactive bacteria (EAB) based biocatalyst and floating macrophytes in free of any soil bed for internal resistance controlled operability and efficient flow in reactor; said separate multi-anodic chambers based CW-MFC reactor operatively connected to its said adjacently disposed cathodic chamber separated by said earthen CEMs for co-operatively close anode and cathode disposition; said plurality of multi-anodic chambers providing for co-acting efficient COD removal with said electroactive bacteria (EAB) based biocatalyst and floating macrophytes in enabling nutrient removal alongwith efficient operation of electricity generation. Figure 1

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