

Controlled synthesis of highly spherical size nano-PbO₂ particles and its Characterization

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PbO₂ is the only electrode to replace BDD electrode and importantly its good resistance to corrosion, long lifetime, and high over potential for oxygen evolution. This investigation aims to introduce prepare nano-structured PbO₂ electrode and its stability. At first step, nano size PbO₂ preparation at optimized condition, Characterization of prepared nano-PbO₂ using SEM, XRD, and XPS. Then using the prepared nano-PbO₂ powder, printed electrodes prepared by using gravure or screen printing technology on suitable substrate like Ti, carbon sheet etc., and conditions optimized to get good nanostructured PbO₂ electrode.