

Low Pt loaded thin film electrode for photoelectrochemical(PEC) cell

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This study is related to hydrogen production by water splitting reaction through PEC system. This system consists of two parts. In one part solar energy is converted into electric energy and in second part 'electrolyte cell', it is used for water electrolysis. The efficiency of this system depends on activity of electrode material that is used in electrolytic cell. Platinum is one of the most active material for water splitting reaction but its high cost is the problem. So our intension is to prepare a thin film with minimum Pt loading and highly active for water splitting reaction. Here we prepared Pt film by electrodeposition technique at different pH of electrolytic bath and used as a cathode electrode in PEC system.