

Thin Film of SrTiO₃:Rh/Cu₂O Photocatalysts by using Spray Deposition Method

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The development of photocatalyst for hydrogen production gives promising contribution for clean, sustainable and renewable energy system in the future. New approaches are introduced every year to produce more efficient photocatalysts in purpose of solving energy problem. This research is trying to contribute in producing photocatalysts system for water splitting process by introducing Z-scheme thin film photocatalysts system made by spray deposition process. SrTiO₃:Rh is one strong candidate of photocatalyst that has been known for its ability to be actively activated under visible light irradiation. This photocatalyst is paired with Cu₂O which has low electronic band gap that can work under visible light irradiation to absorb more photons from light. Spray deposition is a simple, cheap to operate, and environmentally friendly method that can produce fine quality and properties of thin film.