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Title:	Effect of Oriented Assemblies of SrTiO ₃ with Exposed (200) Plane on Photocatalytic Hydrogen Evolution
Authors:	Maity, Madhusudan (/jspui/browse?type=author&value=Maity%2C+Madhusudan)
Keywords:	Photocatalytic Hydrogen Evolution Effect of Oriented Assemblies of SrTiO ₃
Issue Date:	2022
Publisher:	John Wiley & Sons
Citation:	ChemNanoMat, 8(11), 202200283.
Abstract:	This study aims to investigate the effect of crystallographic orientation of the assemblies of SrTiO ₃ (formed on a glass substrate) on photocatalytic hydrogen evolution. For this, we have successfully synthesized nanocubes of SrTiO ₃ through a hydrothermal method. Assemblies on the glass substrate were formed by using functionalized/non-functionalized oxide over functionalized/non-functionalized glass substrate. The functionalization of the oxides and the glass substrate was carried out using IPTMS (3-iodopropyltrimethoxy silane). Uniform assemblies of nanocubes of SrTiO ₃ with the particles oriented with (200) plane as the exposed surface were formed. The performance of these oriented assemblies was evaluated for photocatalytic hydrogen evolution reaction. Theoretical studies were carried out to understand the mechanism of photocatalytic hydrogen evolution over the oriented assemblies of SrTiO ₃ .
Description:	Only IISERM authors are available in the record.
URI:	https://doi.org/10.1002/cnma.202200283 (https://doi.org/10.1002/cnma.202200283) http://hdl.handle.net/123456789/4840 (http://hdl.handle.net/123456789/4840)
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