

Photocatalytic water splitting over the NiO/Sr₃Ti₂O₇

정현도*, 김권일, 김동식
한국에너지기술연구원
(hdjung@kier.re.kr*)

The present study includes the preparation of Sr₃Ti₂O₇, a layered Perovskite-type oxide prepared by a polymerized complex method, which is a variant of the sol-gel method. The photocatalytic activity of Sr₃Ti₂O₇ prepared by a polymerized complex method was compared with that prepared by a conventional ceramic technique (so called solid-state reaction method). Finding an optimum level of metal loading on the Sr₃Ti₂O₇ was also attempted for the maximum hydrogen evolution in the photocatalytic water splitting. The photocatalysts were characterized by XRD, BET, UV-DRS, TGA, and TEM analyses before and after the reaction.