
Nickel and either tantalum or niobium-codoped TiO₂ and SrTiO₃ photocatalysts with visible-light response for H₂ or O₂ evolution from aqueous solutions

SUPPLEMENTARY INFORMATION

Ryo Niishiro,^a Hideki Kato^a and Akihiko Kudo^{*ab}

^a Department of Applied Chemistry, Faculty of Science, Science University of Tokyo, 1-3 Kagurazaka, Shinjyuku-ku, Tokyo 162-8601, Japan. Fax: +81-33235-2214; E-mail: a-kudo@rs.kagu.tus.ac.jp

^b Core Research for Evolutional Science and Technology, Japan Science and Technology Agency (CREST, JST), 4-1-8 Honcho, Kawaguchi-shi, Saitama 332-0012, Japan.

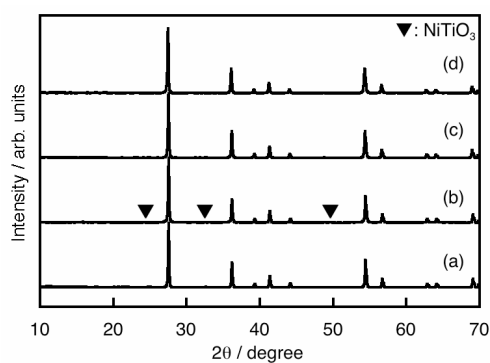


Fig. A X-ray diffraction patterns of the TiO₂ series: (a) non-doped; (b) Ni(1.0%)-doped; (c) Ni(1.0%)/Nb(2.0%)-codoped and (d) Ni(1.0%)-Ta(2.0%)-codoped TiO₂.

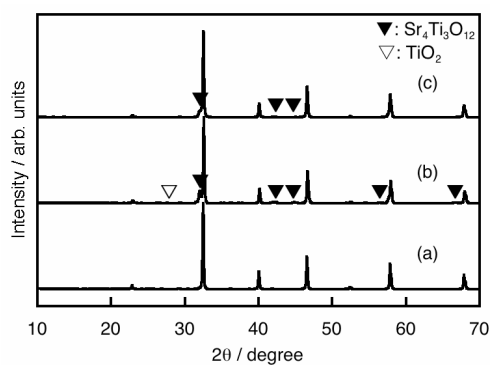


Fig. B X-ray diffraction patterns of the SrTiO₃ series: (a) non-doped; (b) Ni(1.0%)-doped and (c) Ni(1.0%)/Ta(2.0%)-codoped SrTiO₃.

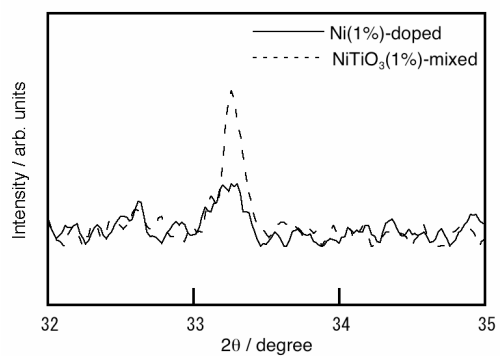


Fig. C X-ray diffraction peaks of NiTiO₃ in Ni(1%)-doped TiO₂ (solid line) and NiTiO₃(1%)-mixed TiO₂ (broken line).

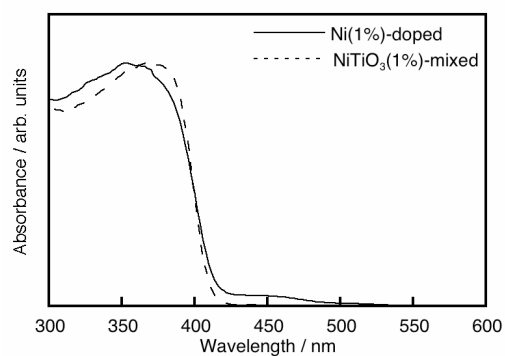


Fig. D Diffuse reflection spectra of NiTiO₃ in Ni(1%)-doped TiO₂ (solid line) and NiTiO₃(1%)-mixed TiO₂ (broken line).