Title: Improved visible-light activity of nitrogen-doped layered niobate photocatalysts by NH_3-nitridation with KCl flux

Authors: Hajime Suzuki, Osamu Tomita, Masanobu Higashi, Akinobu Nakada, Ryu Abe

PII: S0926-3373(18)30197-8
DOI: https://doi.org/10.1016/j.apcatb.2018.03.007
Reference: APCATB 16465

To appear in: *Applied Catalysis B: Environmental*

Received date: 19-12-2017
Revised date: 27-2-2018
Accepted date: 1-3-2018

Please cite this article as: Suzuki H, Tomita O, Higashi M, Nakada A, Abe R, Improved visible-light activity of nitrogen-doped layered niobate photocatalysts by NH_3-nitridation with KCl flux, *Applied Catalysis B, Environmental* (2010), https://doi.org/10.1016/j.apcatb.2018.03.007

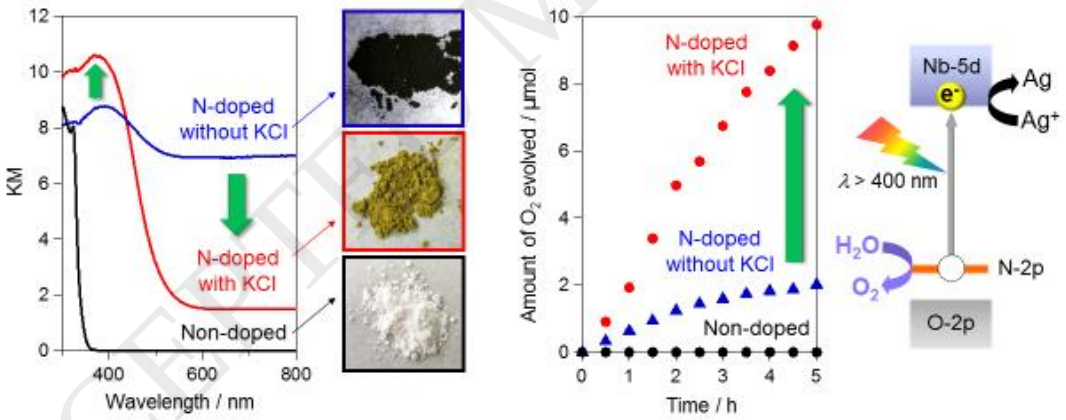
Improved visible-light activity of nitrogen-doped layered niobate photocatalysts by NH_3-nitridation with KCl flux

Hajime, Suzuki,[a] Osamu Tomita,[a] Masanobu Higashi,[a] Akinobu Nakada,[a] and Ryu Abe*[a,b]

[a.] *Department of Energy and Hydrocarbon Chemistry, Graduate School of Engineering, Kyoto University, Nishikyo-ku, Kyoto 615-8510, Japan.*

[b.] *JST-CREST, Japan Science and Technology Agency (JST), Kawaguchi, Saitama 332-0012, Japan.*

Graphical abstract



Highlight

- Nitrogen doping into layered metal oxide $KCa_2Na_{n-3}Nb_nO_{3n+1}$ (n = 3 or 4) resulted in yellow-colored samples when NH_3-treatment was performed with KCl, while black-colored samples were obtained by NH_3-treatment without KCl
- The use of KCl during NH_3-treatment of the layered niobates helps in increasing the number