Electronic Supplementary Material (ESI) for CrystEngComm.
This journal is © The Royal Society of Chemistry 2019

Electronic Supplementary Material (ESI) for CrystEngComm.
This journal is © The Royal Society of Chemistry 2019

Electronic Supplementary Information (ESI)

Liquid-phase Atomic Layer Deposition of Crystalline Hematite Without Post-growth Annealing

Asako Taniguchi,*[a] Takaaki Taniguchi, [b] Hajime Wagata, [c] Ken-ichi Katsumata, [d] Kiyoshi Okada [e] and Nobuhiro Matsushita [f]

[a]Graduate School of Pure and Applied Sciences, University of Tsukuba, 1-1-1, Tennodai, Tsukuba, Ibaraki 305-8573, Japan.

[b]World Premier International Center for Materials Nanoarchitectonics (WPI-MANA), National Institute for Materials Science (NIMS), 1-1 Namiki, Tsukuba, Ibaraki 305-0044, Japan.

[c]Department of Applied Chemistry, School of Science and Technology, Meiji University, 1-1-1 Higashimita, Tama-ku, Kawasaki-shi, Kanagawa, 214-8571, Japan.

[d]Photocatalysis International Research Center, Research Institute for Science and Technology, Tokyo University of Science, 2641 Yamazaki, Noda, Chiba, 278-8510, Japan.

[e]Tokyo Institute of Technology, 2-12-1, O-okayama, Meguro, Tokyo 152-8550, Japan.

Department of Materials Science and Engineering, School of Material and Chemical Technology, [f]Tokyo Institute of Technology, 2-12-1 O-okayama, Meguro, Tokyo 152-8550, Japan.

Correspondence and requests for materials should be addressed to Asako Taniguchi.
(email:s1930108@s.tsukuba.ac.jp)

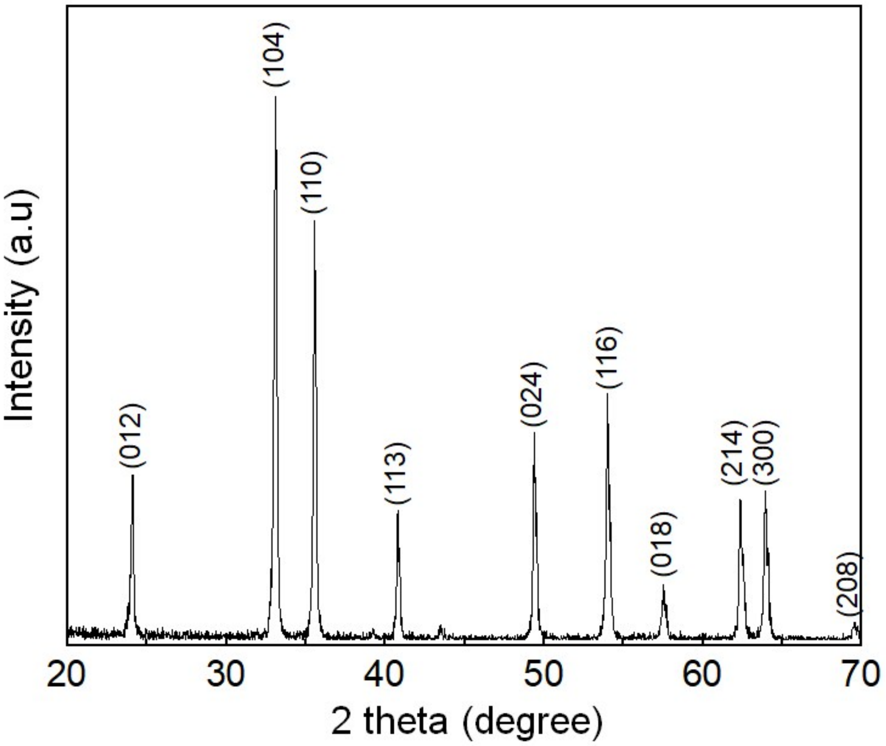

Figure S1.

XRD pattern of α-Fe_2O_3 powder.

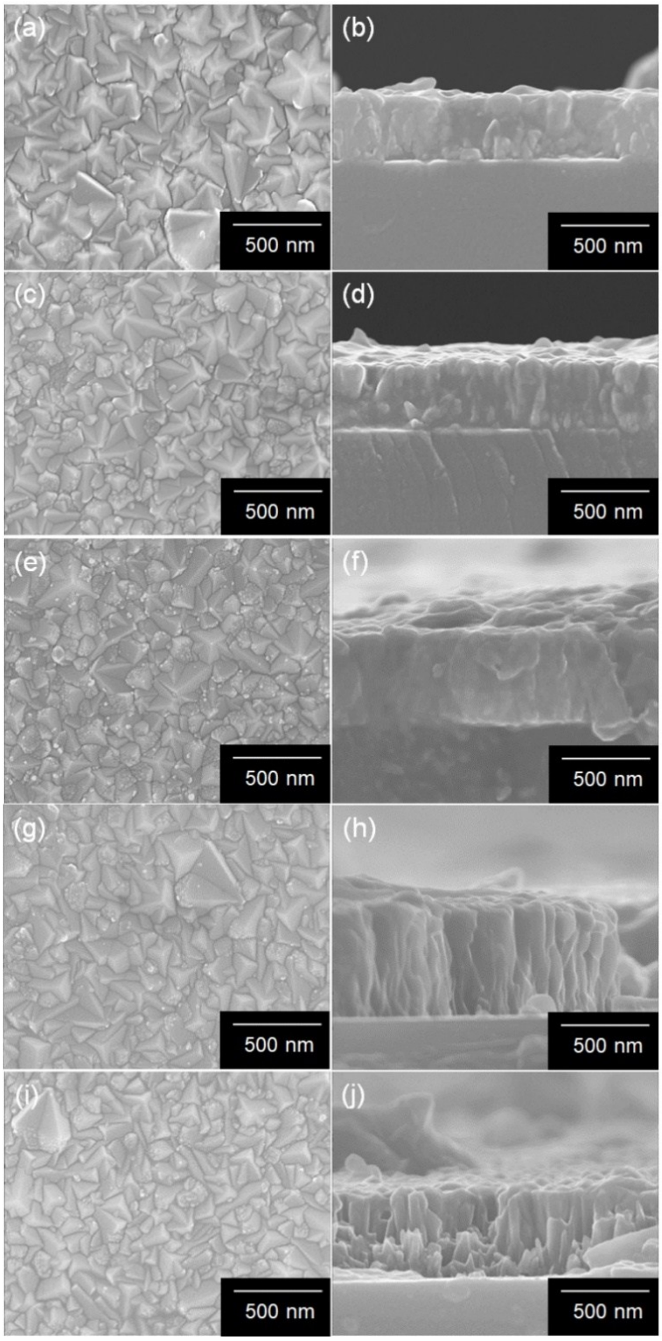

Figure S2. Surface and cross-sectional SEM images of the films fabricated with 10 mM ((a) and (b)), 20 mM ((c) and (d)), and 23 mM ((e) and (f)), 26 mM ((g) and (h)), 27 mM ((i) and (j)) of $NaNO_2$. The reaction duration for the deposition of these films was 90 min.