

Electronic Supplementary Information Available for “Reaction temperature variations on the crystallographic state of spinel cobalt aluminate”

Minori Taguchi,^{1,2} Takayuki Nakane,² Kenjiro Hashi,² Shinobu Ohki,²*

Tadashi Shimizu,² Yoshio Sakka,² Akiyuki Matsushita,² Hiroya Abe,³

Toshitaka Funazukuri¹ and Takashi Naka²

¹Department of Applied Chemistry, Faculty of Science and Engineering,
Chuo University,

1-13-27 Kasuga, Bunkyo-ku, Tokyo 112-8551, Japan

²National Institute for Materials Science,

1-2-1 Sengen, Tsukuba 305-0047, Japan

³Joining and Welding Research Institute, Osaka University,

11-1 Mihogaoka, Ibaraki, Osaka 567-0047, Japan

Supplementary Figures



Figure S1. Photograph of (a) precursor, (b) products sintered at 200 °C, (c) 400 °C, (d) 600 °C, (e) 800 °C, (f) 1000 °C, (g) 1200 °C, and (h) 1400 °C.

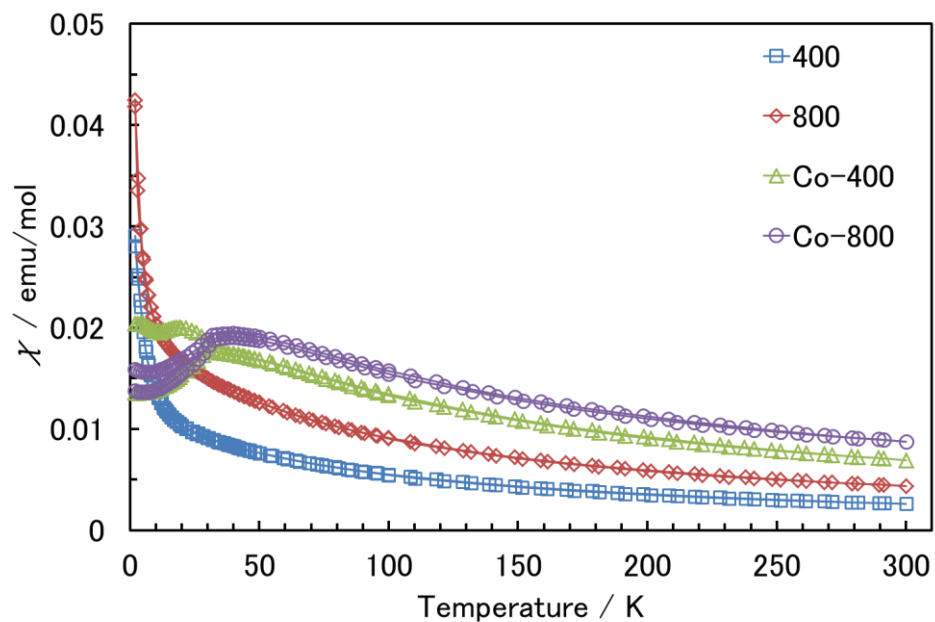


Figure S2. Zero-field-cooled and field-cooled magnetic susceptibility (χ) versus temperature (T) plots measured at 100 Oe of the products synthesized from Co-Al hydroxide precursor sintered at 400 (**400**) and 800 °C (**800**), and the Co_3O_4 products synthesized from $\text{Co}(\text{OH})_2$ sintered at 400 (**Co-400**) and 800 °C (**Co-800**), respectively.

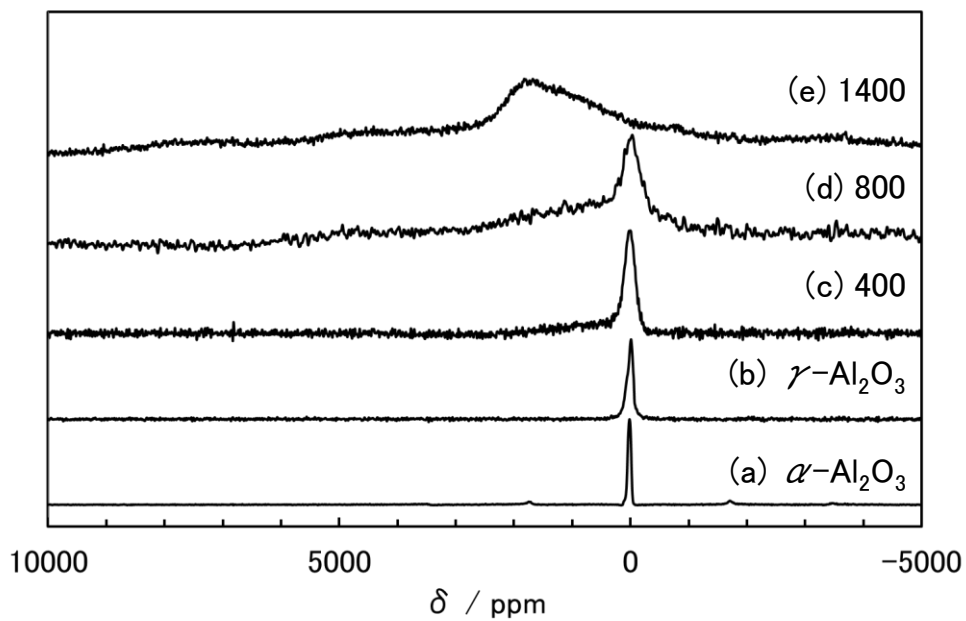


Figure S3. ^{27}Al wide-band NMR spectra of reference compounds: (a) $\alpha\text{-Al}_2\text{O}_3$, (b) $\gamma\text{-Al}_2\text{O}_3$, and (c) products sintered at 400 °C, (**400**), (d) 800 °C, (**800**), and (e) 1400 °C, (**1400**).