

Supplementary Information

Low-Temperature Growth of Idiomorphic Cubic-phase $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ Crystals Using LiOH Flux

Takeshi Kimijima,¹ Nobuyuki Zettsu,^{1,2,3} Hitoshi Onodera,¹ Kunio Yubuta,^{3,4} Shuji Oishi,¹ and Katsuya Teshima^{1,2,3}*

¹*Department of Environmental Science and Technology, Faculty of Engineering, Shinshu University, 4-17-1 Wakasato, Nagano 380-8553, Japan*

²*Center for Energy and Environmental Science, Shinshu University, 4-17-1 Wakasato, Nagano 380-8553, Japan*

³*JST-CREST 4-1-8, Honcho, Kawaguchi-shi, Saitama 332-0012, Japan*

⁴*Institute for Materials Research, Tohoku University, Sendai 980-8577, Japan*

Tel: +81-26-269-5556

Fax: +81-26-269-5550

E-mail address of corresponding author*: teshima@shinshu-u.ac.jp

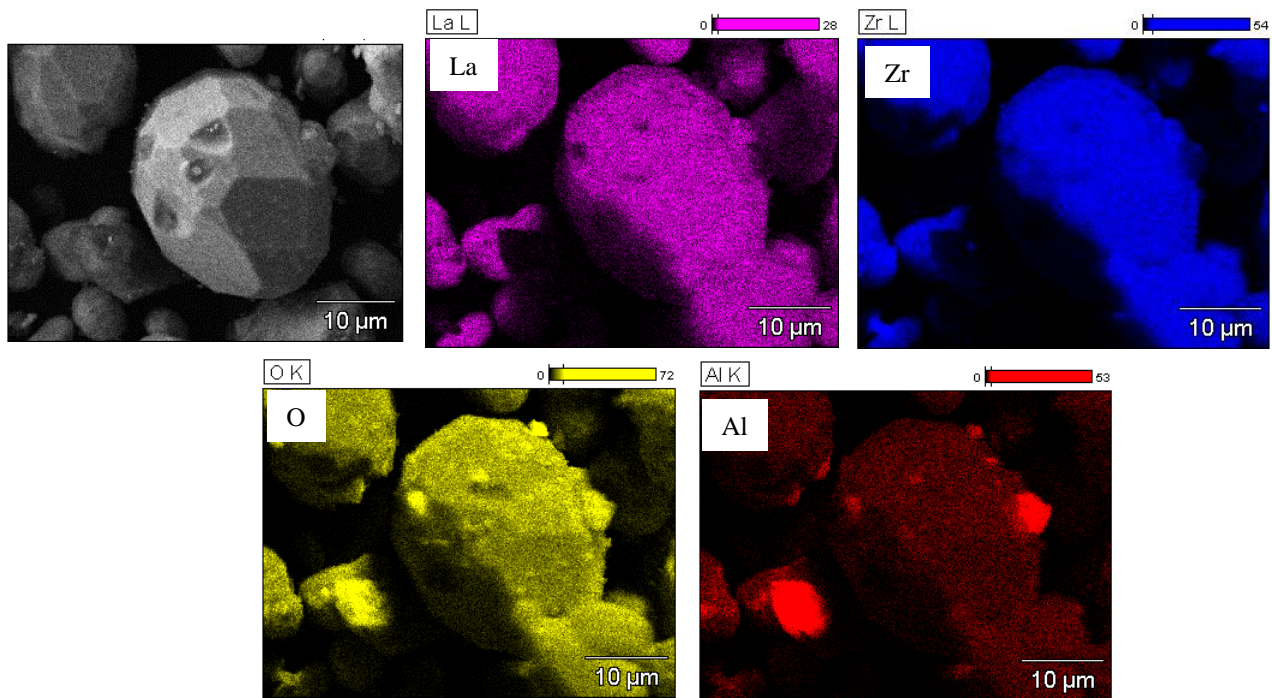


Figure S1 FE-SEM image and corresponding EDS mappings of the crystals grown at 900 °C with Li/Zr ratio of 70.

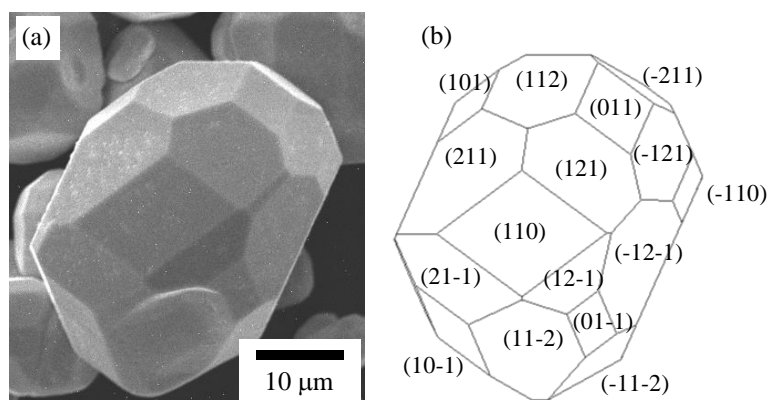


Figure S2 (a) High-magnification SEM image and (b) Schematic illustration of a LLZ crystal bounded by $\{211\}$ and $\{110\}$ facets. The illustration was drawn by using the crystal growth simulation software QuartzVS.