

# Synthesis of single crystalline spinel $\text{LiMn}_2\text{O}_4$ nanowires for lithium ion battery with high power density

*Eiji Hosono, Tetsuichi Kudo, Itaru Honma, Hirofumi Matsuda, Haoshen Zhou\**

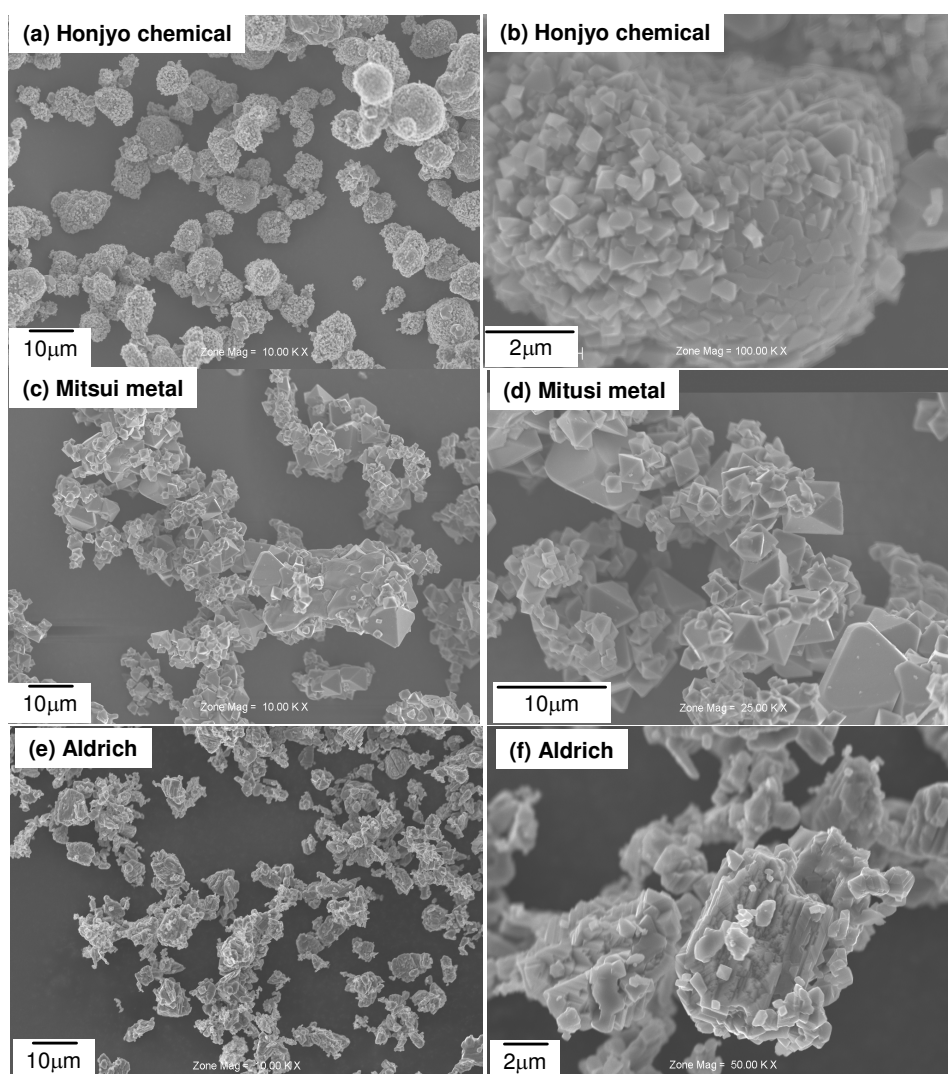
Energy Technology Research Institute

National Institute of Advanced Industrial Science and Technology,

Umezono, 1-1-1, Tsukuba, 305-8568, Japan.

Tel: 81-29-861-5795, Fax: 81-29-861-5799

E-mail: hs.zhou@aist.go.jp



**Figure S1.** The SEM images of commercial  $\text{LiMn}_2\text{O}_4$  (a, b) from Honjyo Chemical, (c,

d) with 0.5wt% of Mg from Mitsui Metal and (e, f) from Aldrich Co.

The sizes of primary particles and aggregated secondary particles of  $\text{LiMn}_2\text{O}_4$  by Honjyo Chemical are around 500nm-1 $\mu\text{m}$  and 10 $\mu\text{m}$ , respectively. The size of  $\text{LiMn}_2\text{O}_4$  particles by Mitsui Metal is from about 1  $\mu\text{m}$  to several 10s  $\mu\text{ms}$ . The sizes of primary particles and aggregated secondary particles of  $\text{LiMn}_2\text{O}_4$  by Aldrich Co. are around 500nm-1 $\mu\text{m}$  and 5 $\mu\text{m}$ , respectively.