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Supplementary Information

Pressure-induced phase transition toward high symmetry in zero-strain Li_2TiO_3

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Figure S1. The XPS analysis of Li₂TiO₃.

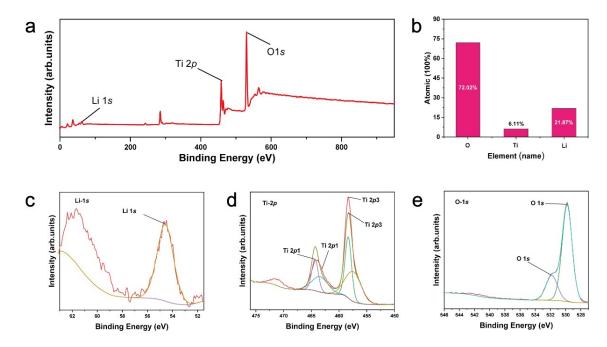


Figure S1 XPS analysis of Li₂TiO₃, (a) Survey spectrum, (b) Stoichiometric ratio of each element, (c) Li 1s,

(d) Ti 2p, (e) O 1s.

Figure S2. The calculated Raman spectra and phonon dispersion of Li₂TiO₃ under high pressure

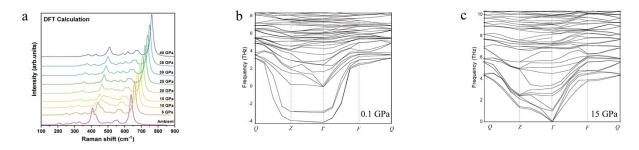


Figure S2 (a) The calculated Raman spectra of Li₂TiO₃ in the range between 0.1 and 40 GPa. (b) and (c) are

phonon dispersion spectra of Li₂TiO₃ under 0.1 and 15 GPa, respectively.

Figure S3. In-situ high pressure Raman spectra under PTM (NaCl).

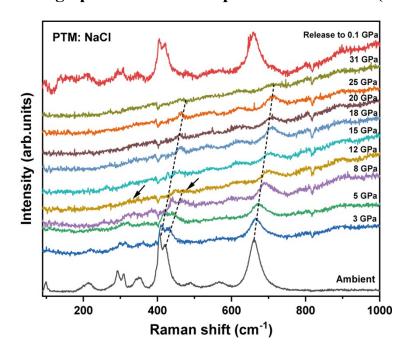


Figure S3 In-situ high pressure Raman spectra under PTM (NaCl).