## **Supporting Information for:**

## Facile synthesis of carbon and oxygen vacancy co-modified TiNb<sub>6</sub>O<sub>17</sub> as anode material for lithium-ion batteries

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Fig.S1 Schematic illustration of the preparation process of TNOs.



Fig.S2 Color difference of A-TNO (a) and P-TNO (b).

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Fig.S3 EDS image of A-TNO: measured zone (a); image of Ti (b); image of Nb (c); image of O (d); image of C (e).



Fig.S4 Nitrogen adsorption-desorption isotherms (a) and pore width distribution (b) of A-TNO, P-TNO and S-TNO.

Table.S1 The BET Surface Area, Pore Size and Pore Volume for of A-TNO, P-TNO and S-TNO.

Samples	BET surface area (m <sup>2</sup> /g)	Pore size (nm)	Pore Volume (cm <sup>3</sup> /g)
A-TNO	12.3	17.6	0.0376
P-TNO	15.9	21.7	0.0615
S-TNO	0.71	6.11	0.00146

Table.S2 Fitting parameters of the equivalent circuit of A-TNO and P-TNO.

	A-TNO	P-TNO
$R_b(\Omega)$	4.19	3.64
$R_1(\Omega)$	2.92	9.16
$R_2(\Omega)$	6.92	29.3