

Electronic Supplementary Information for  
**Long-cycled  $\text{Li}_2\text{ZnTi}_3\text{O}_8/\text{TiO}_2$  composites anode material synthesized via one pot  
co-precipitation method for lithium ion batteries**

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Table. S1 references about the modification or composite anodes of  $\text{Li}_2\text{ZnTi}_3\text{O}_8$ 

	The last		The last		The last		Reference
	charge	Cycle	charge	Cycle	charge	Cycle	
	capacity	number	capacity	number	capacity	number	
	$1000\text{mA g}^{-1}$		$2000\text{mA g}^{-1}$		$3000\text{mA g}^{-1}$		
$\text{Li}_2\text{ZnTi}_3\text{O}_8/\text{TiO}_2$	150.6		137.2		108.2		This
	$\text{mAh g}^{-1}$	1000	$\text{mAh g}^{-1}$	1000	$\text{mAh g}^{-1}$	1000	work
$\text{Li}_2\text{ZnTi}_3\text{O}_8/\text{C}@\text{Cu}$	124.4		90		79.1		[1]
	$\text{mAh g}^{-1}$	1000	$\text{mAh g}^{-1}$	1000	$\text{mAh g}^{-1}$	1000	
Sol-gel $\text{Li}_2\text{ZnTi}_3\text{O}_8$	150		90.9		71.2		[2]
	$\text{mAh g}^{-1}$	1000	$\text{mAh g}^{-1}$	1000	$\text{mAh g}^{-1}$	1000	
$\text{Li}_2\text{ZnTi}_3\text{O}_8/\text{C}$	190		$160.5\text{mAhg}^{-1}$		$135\text{mAh g}^{-1}$		
	$\text{mAh g}^{-1}$	100	$(3000\text{ mA g}^{-1})$	100	$(4000\text{ mA g}^{-1})$	100	[3]
$\text{Li}_2\text{ZnTi}_3\text{O}_8^*$	190.7		160.5		141.5		
	$\text{mAh g}^{-1}$	300	$\text{mAh g}^{-1}$	300	$\text{mAh g}^{-1}$	300	[4]
$\text{Li}_2\text{ZnTi}_3\text{O}_8$	165		150		100		
	$\text{mAh g}^{-1}$	200	$\text{mAh g}^{-1}$	100	$\text{mAh g}^{-1}$	100	[5]
			$(2.5\text{A g}^{-1})$		$(5\text{ A g}^{-1})$		
Cu-Graphite-Au-	220.7		196.1		180.9		[6]
$\text{Li}_2\text{ZnTi}_3\text{O}_8$	$\text{mAh g}^{-1}$	200	$\text{mAh g}^{-1}$	250	$\text{mAh g}^{-1}$	450	
$\text{Li}_2\text{ZnTi}_3\text{O}_8/\text{La}_2\text{O}_3$			76.3		104		[7]
			$\text{mAh g}^{-1}$	1000	$\text{mAh g}^{-1}$	100	

\*: The discharge current density is  $300\text{mA g}^{-1}$ , and the charge current density is  $1000\text{mA g}^{-1}$ ,  $2000\text{mA g}^{-1}$  and  $3000\text{mA g}^{-1}$ , respectively.

1 H. Tang, Y. Zhou, L. Zan, N. Zhao, Z. Tang, *Electrochim. Acta*, **2016**, **191**, 887–894.

2 T. Liu, H. Tang, L. Zan, Z. Tang, *J. Electroanal. Chem.*, **2016**, **771**, 10–16.

3 L. Wang, B. Chen, Z. Meng, B. Luo, X. Wang, Y. Zhao, *Electrochim. Acta*, **2016**, **188**, 135–144.

4 Z. Li, Y. Cui, J. Wu, C. Du, X. Zhang, Z. Tang, *RSC Adv.*, **2016**, **6**, 39209–39215.

5 L. Wang, Z. Meng, H. Wang, X. Li, G. Zhang, *Ceram. Int.*, **2016**, **42**, 16872–16881.

6 X. Li, L. Wang, C. Li, B. Chen, Q. Zhao, G. Zhang, *J. Power Sources*, **2016**, **308**, 65–74.

7 H. Tang, L. Zan, J. Zhu, Y. Ma, N. Zhao, Z. Tang, *J. Alloys Compd.*, **2016**, **667**, 82–90.