Supporting Information

Electronic and Local Structural Change with Lithium-Ion Insertion in TiO_2-B: X-ray Absorption Spectroscopy Study

Toyoki Okumura,[a] Tomokazu Fukutsuka,[b] Asuki Yanagihara,[a] Yuki Orikasa,[c] Hajime Arai,[c] Zempachi Ogumi,[c] and Yoshiharu Uchimoto[a]

[a] *Department of Interdisciplinary Environment, Graduate School of Engineering, Kyoto University, Nishikyo-ku, Kyoto 615-8510, Japan*
[b] *Department of Interdisciplinary Environment, Graduate School of Human and Environmental Studies, Kyoto University, Yoshida-nihonmatsu-cho, Sakyo-ku, Kyoto606-8501, Japan,*
[c] *Society-Academia Collaboration for Innovation, Kyoto University, Nishikyo-ku, Kyoto 615-8510, Japan*

Table S1 Calculated parameters estimated from Ti *K*-edge EXAFS spectra for Li_xTiO_2 (x = 0, 0.13, 0.26, 0.40, 0.53, 0.67): interatomic distance (*R*) and Debye Waller factor (σ). Coordination number (*CN*) was fixed at fitting

	Ti-O			Ti-Ti(edge)			Ti-Ti(corner)			Residue(%)
	CN	*R*/Å	σ/Å	CN	*R*/Å	σ/Å	CN	*R*/Å	σ/Å	
Li_xTiO_2-B										
$x = 0$	6	1.939(8)	0.120(11)	5	3.158(15)	0.102(19)	4	3.386(11)	0.061(20)	2.674
$x = 0.13$	6	1.948(8)	0.121(11)	5	3.165(14)	0.101(19)	4	3.391(11)	0.064(20)	3.359
$x = 0.26$	6	1.961(7)	0.123(11)	5	3.176(14)	0.103(18)	4	3.408(13)	0.078(20)	3.516
$x = 0.40$	6	1.960(7)	0.125(11)	5	3.178(14)	0.103(17)	4	3.409(13)	0.079(20)	3.272
$x = 0.53$	6	1.985(8)	0.130(11)	5	3.206(14)	0.108(16)	4	3.480(21)	0.103(23)	4.837
$x = 0.67$	6	2.014(9)	0.145(12)	5	3.219(13)	0.116(15)	4	3.521(19)	0.108(22)	9.863

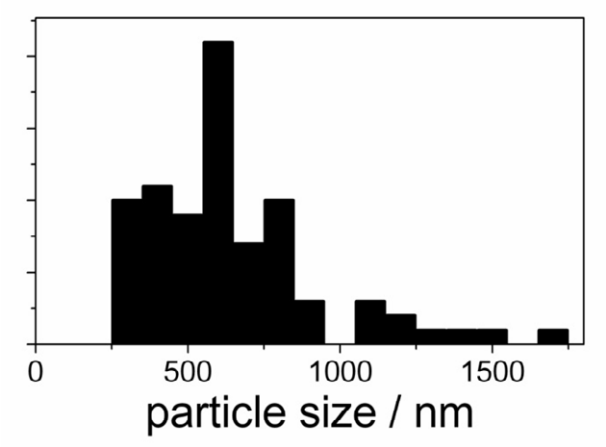

Figure S1. Size distribution of TiO_2-B estimated by SEM image