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Typical Sample Data (Carbon Coated powder)

OSAKA Titanium technologies Co., Ltd.

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1) Metal Impurity Concentration

ICP -AES

(ppmw)

Lot. No.	Fe	Ni	Cu	Cr	Al	Mg	Ti	Zn	Zr	Co	Mn
CC140109-1	23	<1	2	1	16	4	<1	<1	175	<1	44

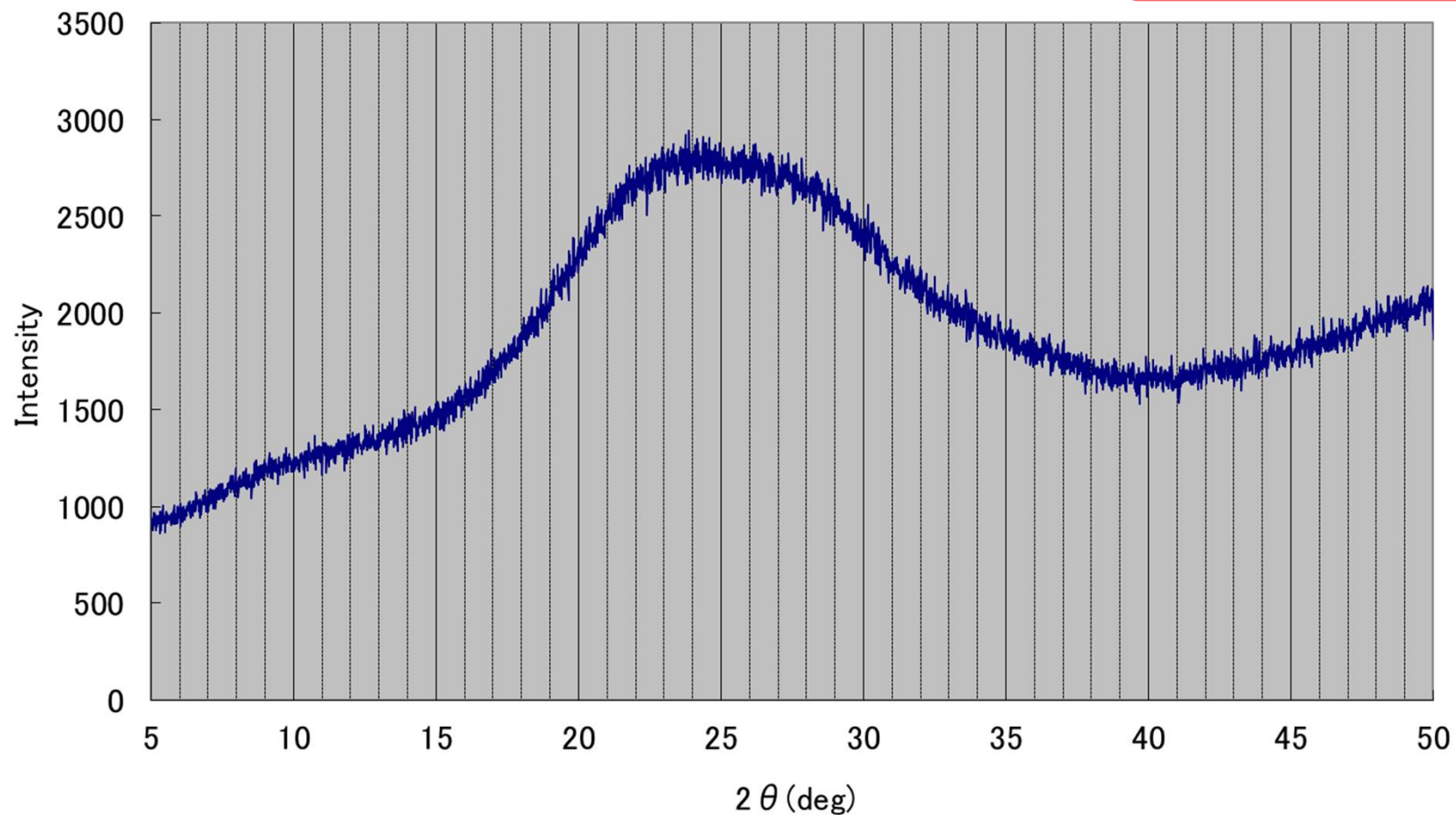
2) Carbon Content

BET specific surface area

Lot. No.	Carbon	BET
CC140109-1	1.6 wt%	2.6 m ² /g

3) XRD

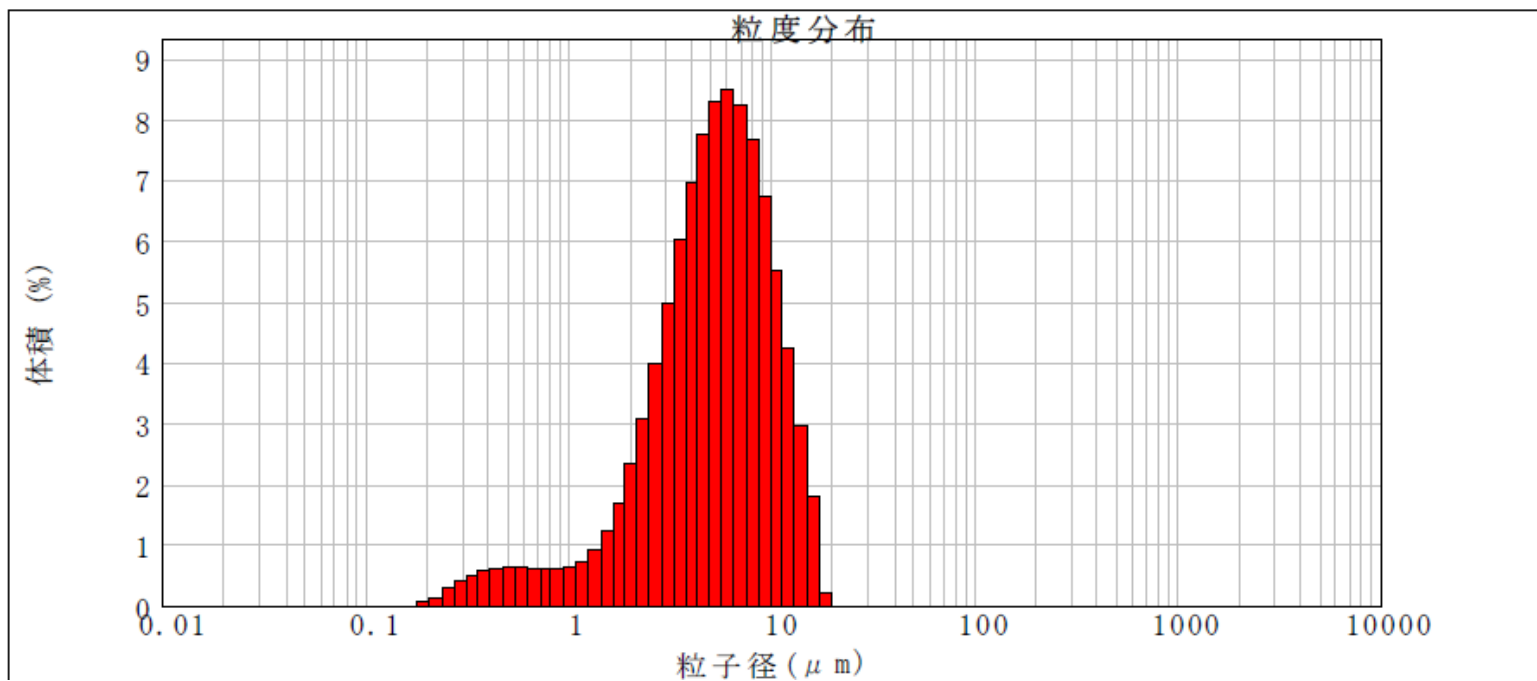
CC140109-1

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5) Particle Size Distribution

Malvern mastersizer 2000



Lot No.	D10	D50	D90	D99	$\leq 2 \mu\text{m}$
CC140109-1	1.8 μm	5.4 μm	11.2 μm	16.2 μm	11.5%

Cell Characteristic

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Preparation

Cathode: SiO:KB:PI = 80:5:15

Cu plate (35 μm), φ 11mm

Anode: Li, φ 13mm

Cell type: 2032

Electrolyte: EC:DEC=1:1

Electrode wt: 3.5~4.5 mg/cm²

Charge/Discharge Condition

Charge

1st CC-CV 0.1C 5mV-50 μA

2nd CC-CV 0.3C 5mV-50 μA

3rd CC-CV 0.5C 5mV-50 μA

Discharge

CC 0.1C 1.5V

CC 0.3C 1.5V

CC 0.5C 1.5V

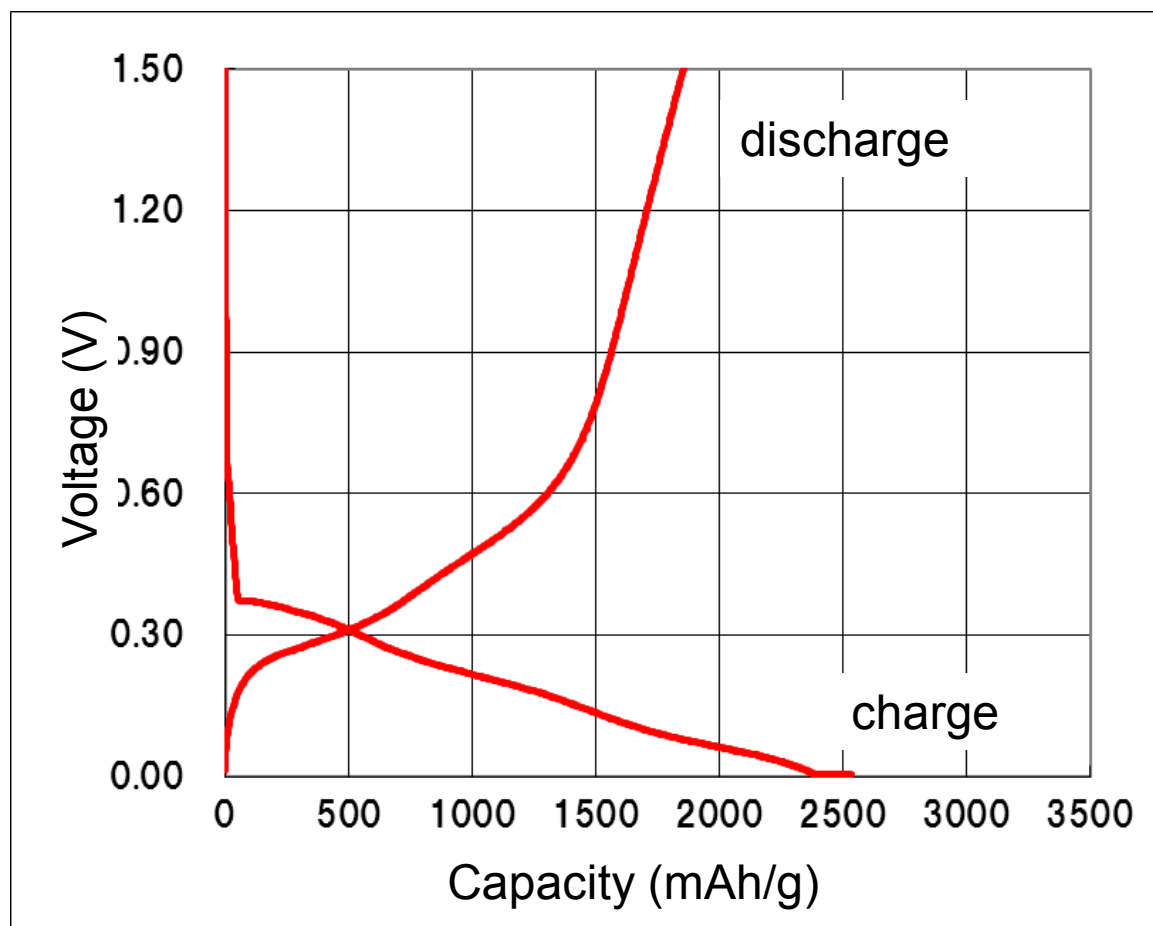
SiO=1500 mAh/g in calculation

Lot No.	1 st Charge [mAh/g]	1 st Discharge [mAh/g]	1 st Efficiency [%]	Rate Characteristic* [%]
CC140109-1	2531	1853	73.2	96.4

* 3cycle Discharge/1cycle charge

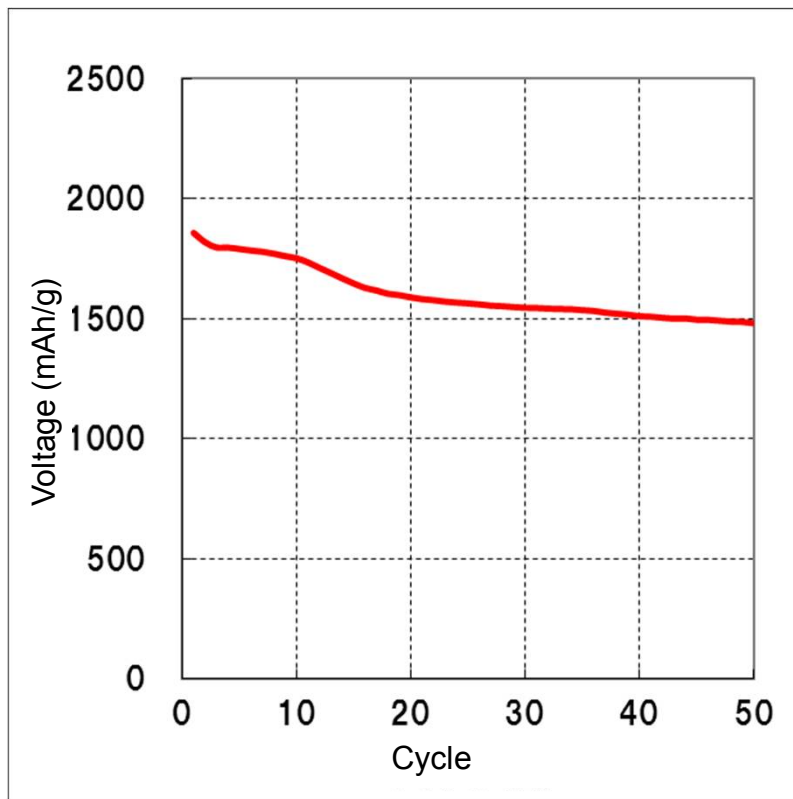
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1st Charge/Discharge Behavior



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Discharge Capacity



Discharge Capacity Retention Rate

