

检验报告 TEST REPORT

NAME OF SAMPLE: Rechargeable Li-ion Battery

产品名称: 锂离子电池组

CLIENT: Sunwoda Electronic Co., Ltd. 委托单位: 欣旺达电子股份有限公司

CLASSIFICATION OF TEST: Commission test

检验类别: 委托测试





Shenzhen Precise Testing Technology Co., Ltd

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Report No.: 5-180700297	rage 2 or 15
	Applicant information 申请资料
Name of samples: 样品名称:	Rechargeable Li-ion Battery 锂离子电池组
Type/ Model: 型号规格:	L18D4PF0 15.36V 2964mAh/45Wh (TYP) 2865mAh/44Wh (MIN)
Lithium content:: 锂含量:	
Trade mark: 商标:	
Commission by: 委托单位:	Sunwoda Electronic Co., Ltd. 欣旺达电子股份有限公司
Commissioner address: 委托单位地址:	Floor 1,A,B,D District of Floor 2 and Floor 3 to 9 of Comprehensive Building, No.2 Yihe Road, Shilong Community, Shiyan Street, Bao'an District, Shenzhen City, Guangdong Province, P.R. China 中国广东省深圳市宝安区石岩街道石龙社区颐和路2号综合楼1楼、2楼A-B区、2楼D区3-9楼
Factory: 生产厂:	Sunwoda Electronic Co., Ltd. Sixth Branch 欣旺达电子股份有限公司第六分公司
Factory address: 生产厂地址:	Northeast of Intersection of Keyu Road and Tongguan Road, Gongming Street, Guangming New District, Shenzhen City, Guangdong Province, P.R. China 中国广东省深圳市光明新区公明街道科裕路与同观大道交汇处东北
Appearance: 样品外观颜色:	Black 黑色
Sample status: 样品状态 :	Good 完好
Package of goods: 样品外包装:	Carton 纸箱
Quantity of sample: 样品数量:	41pcs
Sample identification: 样品标识序号:	b1#~b16# c1#~c25#
Receiving date: 接样日期:	2018-07-09
Completing date: 测试完成日期:	2018-07-25
Conclusion/结论:	Testing *

The submitted samples comply with the requirements of UNITED NATIONS Section 38. The Sixth Revised Edition Of The Recommendations On The Transport Of Dangerous Goods, Manual Of Test And Criteria(ST/SG/AC.10/11/Rev.6 Section 38.3)

样品符合联合国《关于危险货物运输的建议书 试验和标准手册》第六修订

Seal/检验专用章

Date of issue: 2018.07.25

Approved:

汤鱼发

Reviewed

Tested



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Test Conclusion测试结论							
No. 序号	Name of test 测试项目名称		Test result 测试结果	Conclusion 本项结论	Remarks 备注		
1	Altitude simulation 高度模拟		See Appendix 1	Р			
2	Thermal test 温度试验		See Appendix 2	Р			
3	Vibration 振动	The submitted samples comply with the	See Appendix 3	Р			
4	Shock 冲击	requirements of UNITED NATIONS Section 38.3 Of The Sixth Revised Edition Of The Recommendations On	See Appendix 4	Р			
5	External Short-circuit 外部短路	The Transport Of Dangerous Goods, Manual Of Test And Criteria(ST/SG/AC.10/11/ Rev.6 Section 38.3) 样品符合联合国《关于危险	See Appendix 5	Р			
6	Crush 挤压	货物运输的建议书 试验和标准手册》第六修订版第 38.3节的要求。	See Appendix 6	Р			
U	Impact 撞击		See Appendix 6	N/A			
7	Overcharge 过度充电		See Appendix 7	Р			
8	Forced discharge 强制放电		See Appendix 8	Р			



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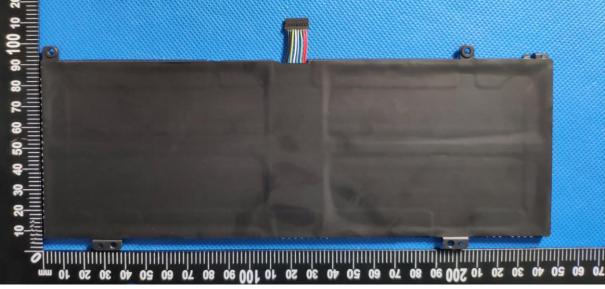
Photos of samples and markings

样品及标识片

Battery (L18D4PF0 15.36V 2964mAh/45Wh (TYP) 2865mAh/44Wh (MIN)









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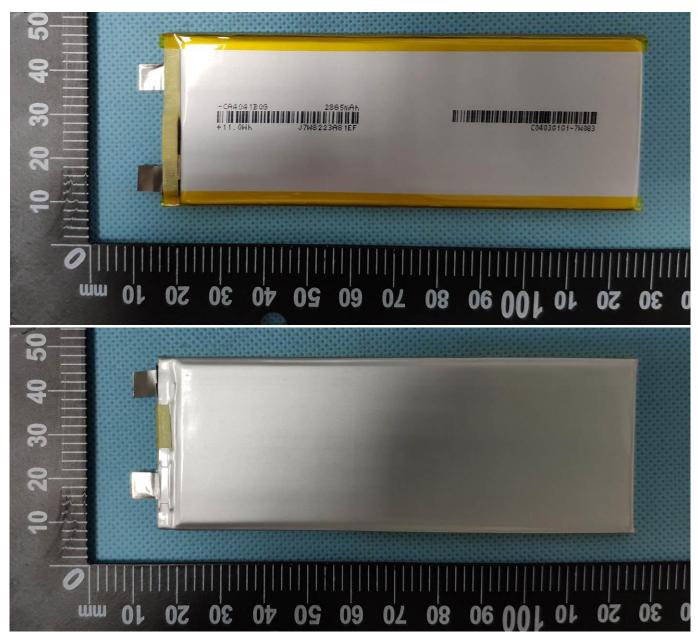
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Photos of samples and markings

样品及标识照片

Cell (CA4041 2865mAh 11.0Wh)







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			• •	endix 1					
			附	表 1					
Test Items 测试项目	Altitude simulation								
例似坎目	高度模拟								
1.1	_	Test procedure 测试步骤							
	Test cells and batteries shall be stored at a pressure of 11.6kPa or less for at least six hours at ambient temperature (20±5℃). 试验电池芯和电池在环境温度(20±5℃)下,储存在小于等于11.6kPa的压力下至少六小时。								
1.2		at first cycle i	n fully charged 际完全充电。	states;					
	b1# ~ b4#, 在第一个循环完全充电; b5# ~ b8#, after 50 cycles ending in fully charged states; b5# ~ b8#, 在第五十个循环完全充电;								
1.3	Result 测试结果								
Sample No. 样品编号	Before Te	est测试前	After Tes	st测试后	UVI< 10. 0.3 /0		Test result 测试结果		
	Mass 样品质量 (g)	Voltage 开路电压 (V)	Mass 样品质量(g)	Voltage 开路电压 (V)	1g≤M≤75g: 0.2% M>75g: 0.1%)	(≥90%)			
b1#	177.13	17.284	177.12	17.275	0.006	99.95	0		
b2#	176.91	17.314	176.90	17.305	0.006	99.95	0		
b3#	176.60	17.268	176.55	17.256	0.028	99.93	0		
b4#	176.12	17.288	176.08	17.278	0.023	99.94	0		
b5#	176.73	17.281	176.72	17.270	0.006	99.94	0		
b6#	176.28	17.295	176.25	17.284	0.017	99.94	0		
b7#	176.90	17.281	176.89	17.270	0.006	99.94	0		
b8#	176.01	17.292	176.00	17.281	0.006	99.94	0		

Note: L-Leakage, V-Venting, D-Disassembly, R-Rupture, F-Fire, O-No leakage, no venting, no disassembly, no rupture, no fire.

注: L- 泄漏; V- 排气; D- 解体; R- 破裂; F- 起火; O- 无泄漏、无排气、无解体、无破裂、无起火。



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			-	pendix 2			
T	T 14		-	附表 2			
Test Items 测试项目	Thermal test 温度测试						
1.1	Test procedure 测试步骤						
	72±2℃, follomaximum tirepeated unfor 24 hours将电芯和电流	owed by stor me interval b til 10 total cy at ambient to 地在温度为72	rage for at le etween test t cles are com emperature (2±2℃的条件 ⁻⁷ 分间隔最长为	east six hour temperature nplete, after v 20±5℃). 下贮存不少于	least six hours at a rs at a test tempera extremes in 30 minu which all test cells are 6个小时,然后,在海体上述步骤直到10次	ture equal to -4 tes, This proced nd batteries are 温度-40±2℃条件	40±2℃, The dure is to be to be stored ‡下贮存不少
1.2		tus at first cycle ii 在第一个循环		ed states;			
	b5# ~ b8#, a	after 50 cycle 在第五十个循	s ending in f		states;		
1.3	Result 测试结果						
Sample No. 样品编号	Before Te	* * * * * * * * * * * * * * * * * * * *	After Test测试后		Mass loss 质量损失	Residual OCV	Test result
件品编号	Mass 样品质量 (g)	Voltage 开路电压 (V)	Mass 样品质量 (g)	Voltage 开路电压 (V)	(M<1g: 0.5% 1g≤M≤75g: 0.2% M>75g: 0.1%)	剩余电压 (≥90%)	测试结果
b1#	177.12	17.275	177.12	16.923	0.000	97.96	0
b2#	176.90	17.305	176.90	16.950	0.000	97.95	0
b3#	176.55	17.256	176.54	16.912	0.006	98.01	0
	1	1	1	1	1		1

Note: L-Leakage, V-Venting, D-Disassembly, R-Rupture, F-Fire, O-No leakage, no venting, no disassembly, no rupture, no fire.

16.866

16.922

16.924

16.918

16.929

0.006

0.006

0.000

0.017

0.000

97.62

97.98

97.92

97.96

97.96

0

0

0

0

0

注: L- 泄漏; V- 排气; D- 解体; R- 破裂; F- 起火; O- 无泄漏、无排气、无解体、无破裂、无起火。

176.07

176.71

176.25

176.86

176.00

17.278

17.270

17.284

17.270

17.281

176.08

176.72

176.25

176.89

176.00

b4#

b5#

b6#

b7#

b8#



b7#

b8#

176.86

176.00

16.918

16.929

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1,100 0 0 10									
Appendix 3 附表 3									
Test Items	Vibration		P	11/1/2 3					
测试项目	振动								
1.1	Test proced 测试步骤	Test procedure 测试步骤							
	cells in such wave form w minutes, Thi perpendicula 将电芯和电 200Hz,然后	Cells and batteries are firmly secured to the platform of the vibration machine without distorting the cells in such a manner as to faithfully transmit the vibration, The vibration shall be a sinusoidal wave form with a logarithmic sweep between 7 Hz and 200 Hz and back to 7 Hz traversed in 15 minutes, This cycle shall be repeated 12 times for a total of 3 hours for each of three mutually perpendicular mounting position of the cell. 将电芯和电池军固地安装在振动台的台面上,然后开始振动。振动以正弦波形式,以7Hz增加至200Hz,然后再减少回到7Hz为一个循环,一个循环持续15分钟的对数扫频。每个电芯和电池从三个互相垂直的方向上循环12次,3个小时。							
1.2	Sample star 样品状态	tus							
	,	at first cycle in 在第一个循环	n fully charged 完全充电;	d states;					
		after 50 cycles 在第五十个循		lly charged sta	ates;				
1.3	Result 测试结果								
Sample No.					Mass loss	Residual	Test		
样品编号	Before Te	est测试前	After Test测试后		质量损失 (M<1g: 0.5%	OCV 剩余电压	result 测试结果		
	Mass 样品质量 (g)	Voltage 开路电压 (V)	Mass 样品质量 (g)	Voltage 开路电压 (V)	1g≤M≤75g: 0.2% M>75g: 0.1%)	(≥90%)			
b1#	177.12	16.923	177.11	16.892	0.006	99.82	0		
b2#	176.90	16.950	176.90	16.917	0.000	99.81	0		
b3#	176.54	16.912	176.54	16.882	0.000	99.82	0		
b4#	176.07	16.866	176.07	16.835	0.000	99.82	0		
b5#	176.71	16.922	176.71	16.892	0.000	99.82	0		
b6#	176.25	16.924	176.25	16.894	0.000	99.82	0		
1.7"	470.00	40.040	470.05	40.000	0.000	00.00			

Note: **L**-Leakage, **V**-Venting, **D**-Disassembly, **R**-Rupture, **F**-Fire, **O**-No leakage, no venting, no disassembly, no rupture, no fire.

16.888

16.898

0.006

0.006

99.82

99.82

0

0

注: L- 泄漏; V- 排气; D- 解体; R- 破裂; F- 起火; O- 无泄漏、无排气、无解体、无破裂、无起火。

176.85

175.99



b8#

175.99

16.898

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				endix 4				
			附是	表 4				
Test Items 测试项目	Shock 冲击							
1.1	Test procedure 测试步骤	Test procedure 测试步骤						
	Test cells and batteries shall be secured to the testing machine, and each cell shall be subjected to a half-sine shock of peak acceleration of $150g_n$ and pulse duration of 6 milliseconds. Large cells may be subjected to a half-sine shock of peak acceleration of $50g_n$ and pulse duration of 11 milliseconds. Small batteries shall be subjected to a half-sine shock of peak acceleration of $150g_n$ (or Acceleration(g_n)= $\sqrt{\frac{100800}{mass}}$, which is smaller) and pulse duration of 6 milliseconds, large batteries shall be subjected to a half-sine of peak acceleration of $50g_n$ (or Acceleration(g_n)= $\sqrt{\frac{100800}{mass}}$, which is smaller) and pulse duration of 11 milliseconds. Each cell or battery shall be subjected to three shocks in the positive direction followed by three shocks in the negative direction of three mutually perpendicular mounting positions of the cell or battery for a total of 18 shocks							
	以稳固的托架固定住每个电芯和电池样品的全部配件表面。对每个电芯以峰值为150gn的半正弦的加速度撞击,脉冲持续6毫秒,大型电芯须经受最大加速度50gn和脉冲持续时间11毫秒的半正弦波冲击对每个电池以峰值为150gn(或与《100850》中的较小值)的半正弦的加速度撞击,脉冲持续6毫秒,大型电池组须经受最大加速度50gn(或与《100850》中的较小值)和脉冲持续时间11毫秒的半正弦波冲击。每个电池或电池组须在三个互相垂直的电池安装方位的正方向经受三次冲击,接着在反方向经受三次冲击,总共经受18次冲击。							
1.2	-	us t first cycle in f 在第一个循环完	, ,	tates;				
	b5# ~ b8#, at	fter 50 cycles e 在第五十个循环	ending in fully	charged state	es;			
1.3	Result 测试结果							
Sample No. 样品编号	Before Te	est测试前	After Tes	st测试后	Mass loss 质量损失 (M<1g: 0.5%	Residual OCV 剩余电压	Test result 测试结果	
	Mass 样品质量 (g)	Voltage 开路电压 (V)	Mass 样品质量 (g)	Voltage 开路电压 (V)	1g≤M≤75g: 0.2% M>75g: 0.1%)	(≥90%)		
b1#	177.11	16.892	177.09	16.857	0.011	99.79	0	
b2#	176.90	16.917	176.90	16.882	0.000	99.79	0	
b3#	176.54	16.882	176.54	16.848	0.000	99.80	0	
b4#	176.07	16.835	176.07	16.800	0.000	99.79	0	
b5#	176.71	16.892	176.71	16.856	0.000	99.79	0	
b6#	176.25	16.894	176.25	16.858	0.000	99.79	0	
b7#	176.85	16.888	176.85	16.853	0.000	99.79	0	
			1	T -		I		

Note: **L**-Leakage, **V**-Venting, **D**-Disassembly, **R**-Rupture, **F**-Fire, **O**-No leakage, no venting, no disassembly, no rupture, no fire.

16.863

0.000

99.79

0

注: L- 泄漏; V- 排气; D- 解体; R- 破裂; F- 起火; O- 无泄漏、无排气、无解体、无破裂、无起火。

175.99



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		Appendix 5 附表 5							
Test Items	External short	,,,,,,							
测试项目	外部短路	外部短路							
1.1	Test procedu 测试步骤	re							
	temperature recondition with condition is condition is condition is condition is condition to be conclude 保持试验环境流下,将其正负权	tery to be tested shall be temperature stabilized eaches 57±4℃ and then the cell or battery shall a total external resistance of less than 0.1 ohmentinued for at least one hour after the cell or bactor 57±4℃, the cell or battery must be observed ed. 温度稳定在57±4℃,以使电芯或电池样品外表温及用小于0.1欧姆的线路短接,待电芯或电池的外电芯或电池必须进一步观察6个小时才能下结论。	I be subjected to a shot at 57±4℃, This short ttery external case ten for a further six hour for a further six hour for 表温度达到57±4℃, 然后表温度恢复到57±4℃	ort circuit circuit nperature or the test ,在此温月					
1.2	Sample statu 样品状态	s							
	b1# ~ b4#, at first cycle in fully charged states; b1# ~ b4#, 在第一个循环完全充电;								
		er 50 cycles ending in fully charged states; 第五十个循环完全充电;							
1.3	Result 测试结果								
	ple No. 品编号	Max. External Temperature 样品表面最高温度 (℃)	Test result 测试结果	Remark 备注					
k	o1#	57.4	0						
k	o2#	57.6	0						
ŀ	o3#	57.5	0						
k		57.4	0						
k	 5#	57.6	0						
k	o6#	57.7	0						
k	7#	57.8	0						
	 >8#	57.4	0						

Over temperature

注: D- 解体; R- 破裂; F- 起火; OT- 超过170℃; O- 无解体、无破裂、无起火、不超过170℃



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	Appendix 6
-	附表 6
Test Items	Crush 挤压/Impact 撞击
测试项目	
1.1	Test procedure
	测试步骤
	Crush 挤压
	A cell or component cell is to be crushed between two flat surfaces. The crushing is
	to be gradual with a speed of approximately 1.5 cm/s at the first point of contact. The
	crushing is to be continued until the first of the three options below is reached.
	(a) The applied force reaches 13kN±0.78kN;
	(b) The voltage of the cell drops by at least 100 mV; or
	(c) The cell is deformed by 50% or more of its original thickness.
	Once the maximum pressure has been obtained, the voltage drops by 100mV or
	more, or the cell is deformed by at least 50% of its original thickness, the pressure
	shall be released.
	电池芯或组成电池芯在两个平面间挤压。挤压在第一个接触点以约1.5cm/s 的速度慢慢
	进行,直到下面三个选项之一达到为止:
	(a)作用力达到 13kN±0.78kN;
	(b)电池芯电压降至少达到100mV;
	(c)电池厚度和最初比较变形至少50%。
	一旦达到最大压力,电压降超过100 mV或者电池芯变形超过50%,压力应该解除。
	Impact 撞击
	(applicable to cylindrical cells not less than 18mm in diameter)
	The sample cell or component cell is to be placed on a flat smooth surface. A 15.8
	mm ± 0.1 mm diameter, at least 6 cm long, or the longest dimension of the cell,
	whichever is greater, Type 316 stainless steel bar is to be placed across the centre
	of the sample. A 9.1 kg \pm 0.1 kg mass is to be dropped from a height of 61 \pm 2.5 cm
	at the intersection of the bar and sample in a controlled manner using a near
	Frictionless, vertical sliding track or channel with minimal drag on the falling mass.
	The vertical track or channel used to guide the falling mass shall be oriented 90
	degrees from the horizontal supporting surface.
	The test sample is to be impacted with its longitudinal axis parallel to the flat surface
	and perpendicular to the longitudinal axis of the 15.8 mm \pm 0.1 mm diameter curved
	surface lying across the centre of the test sample. Each sample is to be subjected to
	only a single impact.



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	Appendix 附表 6	6			
Test Items	Crush 挤压/Impact 撞击				
测试项目					
	Cells and component cells meet th	is requirement if their extern	al temperature does		
	not exceed 170°C and there is no	disassembly and no fire duri	ng the test and within		
	six hours after this test.				
	(适用于直径不小于18毫米的圆柱形	电池)将电池或元件电池样	品平放在一个平面上,		
	其纵轴平行于测试台面年,将一直径	圣为15.8 mm ± 0.1 mm的316	型不锈钢棒横放在电池		
	中心位置。然后,将一质量为9.1 k	g ± 0.1 kg的物体从61±2.5 cl	m的高度落向样品。样		
	品在进行试验时,其外表温度应不适	超过170℃。且试验结束后6~	个小时之内,样品应无		
	解体、无起火现象发生。				
1.2	Sample status				
	样品状态				
	c1# ~ c5#, at first cycle at 50% of t c1# ~ c5#, 在第一个循环50%的额				
1.3	Result				
	测试结果				
Sample No.	Max. External Temperature	Test result	Remark		
样品编号	样品表面最高温度	测试结果	备注		
	(℃)				
c1#	23.4	O			
c2#	23.5	O			
c3#	23.4	O			
c4#	23.5	O			
c5#	23.4	О			

Note: ${\bf D}$ -Disassembly, ${\bf R}$ -Rupture, ${\bf F}$ -Fire, ${\bf OT}$ -Over Temperature, ${\bf O}$ - no disassembly, no fire, no Over temperature

注: D- 解体; R- 破裂; F- 起火; OT- 超过170℃; O-无解体、无起火、不超过170℃



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	Appendix	•			
Test Items	Overcharge				
测试项目	过度充电 Test procedure				
1.1	测试步骤				
	When the manufacturer's recommended voltage of the test shall be the lesser of the 22V, whichever is less. When the manufacturer's recommended to the test shall current is 2 times of the maximum charge 如果厂家推荐的充电电压不超过18V,本中电压或者是22V,取其中较小者。如果厂的厂家标定最大充电电压。充电电流为厂	wo times the maximum chafacturer's recommended charge 1.2 times maximum charging current recommended by 则试的最小充电电压应该是家推荐的充电电压超过18V,	rige voltage of the or ge voltage is more tha e voltage. The chargin by the manufacturer。 两倍的厂家标定最大充 充电电压应该为 1.2		
1.2	Sample status 样品状态				
	b9#~b12#,在第一个循环完全充电;				
1.3	b13#~b16#, after 50 cycles ending in fu b13#~b16#, 在第五十个循环完全充电;	ully charged states;			
Sample No.	b13#~b16#, after 50 cycles ending in fo b13#~b16#, 在第五十个循环完全充电; Result 测试结果 Voltage Before test(V)	Test result	Remark 备注		
	b13#~b16#, after 50 cycles ending in fu b13#~b16#, 在第五十个循环完全充电; Result 测试结果				
Sample No. 样品编号	b13#~b16#, after 50 cycles ending in fob13#~b16#, 在第五十个循环完全充电; Result 测试结果 Voltage Before test(V) 测试前开路电压(V)	Test result 测试结果			
Sample No. 样品编号 b9#	b13#~b16#, after 50 cycles ending in fob13#~b16#, 在第五十个循环完全充电; Result 测试结果 Voltage Before test(V) 测试前开路电压(V) 17.305	Test result 测试结果 O			
Sample No. 样品编号 b9# b10#	b13#~b16#, after 50 cycles ending in ft b13#~b16#, 在第五十个循环完全充电; Result 测试结果 Voltage Before test(V) 测试前开路电压(V) 17.305 17.303	Test result 测试结果 O			
Sample No. 样品编号 b9# b10# b11#	b13#~b16#, after 50 cycles ending in fob13#~b16#, 在第五十个循环完全充电; Result 测试结果 Voltage Before test(V) 测试前开路电压(V) 17.305 17.303	Test result 测试结果 O O			
Sample No. 样品编号 b9# b10# b11# b12#	b13#~b16#, after 50 cycles ending in ft b13#~b16#, 在第五十个循环完全充电; Result 测试结果 Voltage Before test(V) 测试前开路电压(V) 17.305 17.304 17.281	Test result 测试结果 O O			
Sample No. 样品编号 b9# b10# b11# b12# b13#	b13#~b16#, after 50 cycles ending in ft b13#~b16#, 在第五十个循环完全充电; Result 测试结果 Voltage Before test(V) 测试前开路电压(V) 17.305 17.304 17.281 17.298	Test result 测试结果 O O O			

注: D- 解体; F- 起火; O-无解体、无起火。



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Appendix 8						
附表 8						
Test Items 测试项目	Forced discharge 强制放电					
1.1	Test procedure 测试步骤					
	Each cell shall be forced discharged at ambient temperature by connecting it in series with a 12V D. C, power supply at an initial current equal to the maximum discharge current specified the manufacturer The specified discharge current is to be obtained by connecting a resistive load of the appropriate size and rating in series with the test cell, Each cell shall be forced discharged for a time interval(in hours) equal to its rated capacity divided by the initial test current(in ampere). 在20±5℃的环境温度下,将单个电芯连接在12V的直流电源上进行强制放电,此直流电源提供每个电芯初始电流为制造厂指定的最大放电电流,放电时间为额定容量除以初始电流。					
1.2	Sample status 样品状态					
	c6#~c15#, 在第	一个循环完全的				
	c16# ~ c25#, 在复		ding in fully discharge 全放电;	ed states;		
1.3	Result 测试结果					
Sample No. 样品编号	Voltage Before test 测试前开路电压 (V)	Test result 测试结果	Sample No. 样品编号	Voltage Before test 测试前开路电压 (V)	Test result 测试结果	
c6#	3.422	0	c16#	3.410	0	
c7#	3.412	0	c17#	3.439	0	
c8#	3.408	0	c18#	3.412	0	
c9#	3.419	0	c19#	3.409	0	
c10#	3.412	0	c20#	3.403	0	
c11#	3.408	0	c21#	3.410	0	
c12#	3.408	0	c22#	3.406	0	
c13#	3.403	0	c23#	3.408	0	
c14#	3.409	0	c24#	3.414	0	
c15#	3.415	0	c25#	3.403	0	

Note: **D** -Disassembly, **F**-Fire, **O**- no disassembly, no fire.

注: D- 解体; F- 起火; O-无解体、无起火。



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注 意 事 项 Attention

1. 本报告无检测单位"检验专用章"无效。

The test report is invalid without the official stamp of the lab.

- 2. 未经本实验室书面同意,不得部分地复制本报告。
 Nobody is allowed to photocopy or partly photocopy this report without written permission of the lab.
- 3. 本报告无批准人、审核人签名无效。
 The test report is invalid without the signature of ratifier, reviewer.
- 4. 本报告涂改无效。
 The test report is inva

The test report is invalid if altered.

- 5. 如果报告中部分项目相对于测试依据有偏离的,将在当前测试项目中予以说明。
 If any test method is deviation from the designated test method, must be commented in the test data sheet.
- 6. 对检测报告若有异议,应于收到报告之日起十五天内向检测单位提出。 Objections to the test report must be submitted to lab within 15 days.
- 7. 本报告仅对送检样品负责。

The test report is valid for the tested sample only.

- 8. 本检测结果中"N/A"表示"不适用","P"表示"通过","F"表示"不通过"。 As for the test result "N/A" means "Not Applicable", "P" means "Pass" and "F" means "Fail".
- 9. 本报告是对编号为S-18070029的检测报告的修订,原报告作废。

This report is a revision of the test report number S-18070029, the original report is invalid.

深圳普瑞赛思检测技术有限公司

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