





中国认可 国际互认 检测 TESTING CNAS L5138

Rep.No.:TSZ22040074-P01-R01

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检测报告 UN38.3

ame of	sample:	Lithium Ion Battery	
天湖 7ian Su	产品名称:	美洲	il.
Model/	型号规格:	18650 4000mAh	
	Client:	DONG GUAN SHI RUIFENG ENERGY TECHNOLOGY Co.,Ltd	Y
· 天間 Tian S	委托单位:	东莞市睿丰能源科技有限公司	Ť
Class	ification:	Commission Test	
7ian ^{Su}	检测类别:	大湖 カル 5 委托测试 大湖 フル 5 委托测试	

Shenzhen Tiansu Calibration and Testing Co.,Ltd

深圳天溯计量检测股份有限公司

Shenzhen Tiansu Calibration and Testing Co.,Ltd 深圳天溯计量检测股份有限公司

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Rep. No.: 13222040074-P01-R01	Page 27 to Pages
Name of samples: Lithium Ion Battery	Trade mark: - 7100 500
样品名称: 锂离子电池	商标: -
Commissioned by:	Commissioner address:
DONG GUAN SHI RUIFENG ENERGY TECHNOLOGY	Room 301, Building 4, No.6 Tianheng Road, Changping
Co.,Ltd au Su	Town,Dongguan City, Guangdong Province
委托单位:	委托单位地址:
东莞市睿丰能源科技有限公司	广东省东莞市常平镇田横路 6 号 4 栋 301 室
Manufacturer by:	Manufacturer address:
DONG GUAN SHI RUIFENG ENERGY TECHNOLOGY	Room 301, Building 4, No.6 Tianheng Road, Changping
Co.,Ltd	Town,Dongguan City, Guangdong Province
制造单位: 河西多	制造单位地址:
东莞市睿丰能源科技有限公司	广东省东莞市常平镇田横路 6 号 4 栋 301 室
Manufacturer's Contact Information	Manufacturer's Web Site
制造商联系信息:	制造商网址: -
Phone: 15986625256 Email: 5132528449@qq.com	WE M
Type/Model	Shape: Prismatic
型号规格: 18650 4000mAh	样品形状: 棱柱形
YOR SU	2 VIII 54 7144 54
Appearance color: Blue	Sample size
样品颜色: 蓝色	样品尺寸: L(67.50mm)*W(73.50mm)*H(20.50mm)
Rated info.	Cell quantity
额定信息: 7.4V/4000mAh/29.6Wh	组成电芯数量: 4pcs
Trans St. E. VIII	71415
Quantity of sample: 30cells+16batteries	Cell model 1/4
样品数量: 30 个电芯+16 个电池	电芯型号: 18650 144 55
Limited charge voltage	Cut-off voltage
充电限制电压: 8.4V	放电截止电压: 5.5V
E MA	5. St. St. St. St. St. St. St. St. St. St
Standard charge current	Max continuous charge current
标准充电电流: 0.8A	最大持续充电电流: 4A
Standard discharge current	Max continuous discharge current
标准放电电流: 0.8A	最大持续放电电流: 4A
7 in 50 \$ 181	9 7/AH 5"
Receiving date	Sample identification
接样日期: 2022 年 04 月 11 日	样品标识序号: C01#~C30#, B01#~B16#
Completing date	Test item: 8 items
完成日期: 2022 年 04 月 22 日	测试项目: 8 项
Test conclusion:	700 50
LIBEL CONCILIEION.	

Test conclusion:

检测结论:

The Lithium Ion Battery submitted by DONG GUAN SHI RUIFENG ENERGY TECHNOLOGY Collaborate tested according to Section 38.3 of The Seventh Revised Edition of the United Nations Recommend at one of the Transport of Dangerous Goods, Manual of Test and Criteria (ST/SG/AC.10/11/Rev.7/Section38.3). The feat results comply with the relevant requirements of the standard.

由东莞市睿丰能源科技有限公司送检的锂离子电池,依据联合国《关于危险货物运输的建议书》试验和标题,册》第七修订版第 38.3 节进行检测,测试结果符合标准相关要求。

Date of Issue Apr. 25, 2022

签发日期·2022年54月25日

批准 Approved by 段江海

审核 Reviewed by 邓兴勇

主检 Tested by

徐志龙

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Description and illustration of the sample:

样品说明及描述:

1 pp 00 11 0 C 1 m :	~· / ///	E Mil	
Test item 测试项目	Sample No. 样品编号	天 弾 State プログラグ 状态 ディーター	Remark 备注
T.1~T.5	B01#~B04#	at first cycle in fully charged states; 在第一个循环完全充电;	Battery
1.1~1.5	B05#~B08#	after 25 cycles ending in fully charged states; 在第二十五个循环完全充电;	电池
天讲 7ian S	C01#~C05#	at first cycle at 50% of the design rated capacity; 在第一个循环充电 50%的额定容量;	Cell
T.6	C06#~C10#	after 25 cycles ending in fully charged at 50% of the design rated capacity; 在第二十五个循环充电 50%的额定容量;	电芯
T.7	B09#~B12#	at first cycle in fully charged states; 在第一个循环完全充电;	Battery
K 開 7 an Su	B13#~B16#	after 25 cycles ending in fully charged states; 在第二十五个循环完全充电;	电池
T.8	C11#~C20#	at first cycle in fully discharged states; 在第一个循环完全放电;	Cell
1.0	C21#~C30#	after 25 cycles ending in fully discharged states; 在第二十五个循环完全放电;	电芯

Description of the samp	oling	procedure:
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取	样	程	序	的	说	眀	

Description of report revision:

报告修订的说明:

Remarks:

备注:

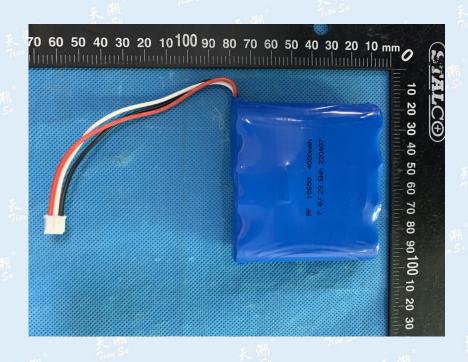
The Lithium Ion Battery submitted by DONG GUAN SHI RUIFENG ENERGY TECHNOLOGY Co.,Ltd are small batteries.

由东莞市睿丰能源科技有限公司所送的锂离子电池是小电池。



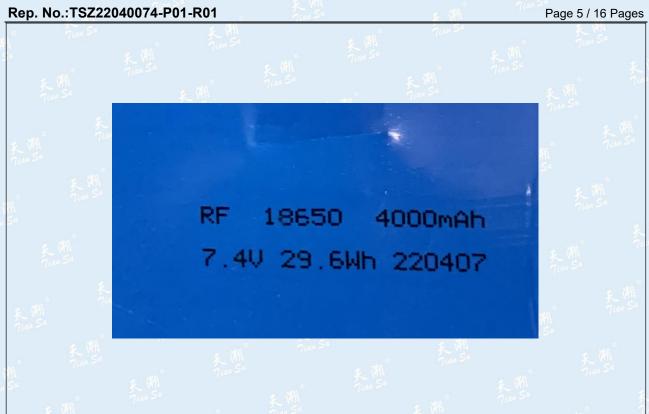
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Photos of Battery\电池图片











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38.3.4	Procedure/测记	式步骤				****	ian Su—	
40	Test 1: Altitude simulation/测试 1: 高度模拟							
	at ambient ten	nperature (20±	5℃).		6kPa or less for a	7ia= 2=	主湖	
	将电芯和电池在温度为 20±5℃,大气压力为不大于 11.6kpa 的环境中贮存不少于 6 个小时。 Requirement/标准要求:							
7ta+ >**	7		ss limit: ≤0.1%			7ian Su		
	样品质量损		700 III III	* 34			P	
38.3.4.1	applicable to	o test cells and	batteries at ful	l discharged sta	relating to voltagates. 要求不适用于完全	Time = Th	e 6:	
	和电芯。					M 5#	2 1	
			disassembly, r t排气、无解体、	75	no fire. 着火现象的发生。	大湖	Tian S	
	Result 测试结果	X Williams	No. 7ian	S. Jan	天湖 Tian 54		天渊 Tian Su	
Sample No			2 75.0	z	Mass loss	Residual OCV	Test result	
Sample No. 样品编号	测试结果 Before		2 75.0		Mass loss 质量损失(%)	Residual OCV 剩余电压(%)	Test result 测试结身	
No.	测试结果 Before 测证 Mass	代前 Voltage	测 ž Mass	式后 Voltage		899	result	
No. 样品编号	测试结果 Before 测记 Mass 样品质量 (g)	大前 Voltage 开路电压(V)	测i Mass 样品质量(g)	式后 Voltage 开路电压(V)	质量损失(%)	剩余电压(%)	result 测试结身	
No. 样品编号 B01#	测试结果 Before 测证 Mass 样品质量 (g) 189.574	大前 Voltage 开路电压(V) 8.370	测i Mass 样品质量(g) 189.479	式后 Voltage 开路电压(V) 8.367	质量损失(%) 0.05	剩余电压(%)	result 测试结界 P	
No. 样品编号 B01# B02#	测试结果 Before 测证 Mass 样品质量 (g) 189.574 189.573	Voltage 开路电压(V) 8.370	测i Mass 样品质量(g) 189.479 189.554	式后 Voltage 开路电压(V) 8.367 8.360	质量损失(%) 0.05 0.01	剩余电压(%) 99.96 99.88	result 测试结身 P	
No. 样品编号 B01# B02# B03#	测试结果 Before 测证 Mass 样品质量 (g) 189.574 189.573	Voltage 开路电压(V) 8.370 8.370 8.364	Mass 样品质量(g) 189.479 189.554 189.512	式后 Voltage 开路电压(V) 8.367 8.360 8.361	质量损失(%) 0.05 0.01 0.03	剩余电压(%) 99.96 99.88 99.96	result 测试结身 P P	
No. 样品编号 B01# B02# B03# B04#	测试结果 Before 测证 Mass 样品质量 (g) 189.574 189.573 189.569 189.580	Voltage 开路电压(V) 8.370 8.370 8.364 8.381	Mass 样品质量(g) 189.479 189.554 189.512 189.523	式后 Voltage 开路电压(V) 8.367 8.360 8.361 8.373	质量损失(%) 0.05 0.01 0.03 0.03	剩余电压(%) 99.96 99.88 99.96 99.90	result 测试结身 P P	
No. 样品编号 B01# B02# B03# B04# B05#	测试结果 Before 测证 Mass 样品质量 (g) 189.574 189.573 189.569 189.580 189.581	Voltage 开路电压(V) 8.370 8.370 8.364 8.381 8.365	Mass 样品质量(g) 189.479 189.554 189.512 189.523 189.486	式后 Voltage 开路电压(V) 8.367 8.360 8.361 8.373 8.357	质量损失(%) 0.05 0.01 0.03 0.03 0.05	剩余电压(%) 99.96 99.88 99.96 99.90	P P P	

Other supplements: Test result "P" decides that the test item passes.

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38.3.4	Procedure/测	试步骤					ian Su—				
ya	Test 2: Therr	mal test/测试 2	: 温度测试	Tian 2"	- x8A **	Jean Su	Į.				
	72±2℃, follow The maximum procedure is batteries are 将电芯和电池 贮存不少于 6	wed by storage n time interval b to be repeated to be stored for 在温度为 72±2 个小时,两个流	for at least six between test te until 10 total cy 24 hours at an ℃的条件下贮存	hours at a test mperature extro cles are complo nbient tempera 不少于 6 个小 长为 30min,重约	时,然后,在温点	al to -40±2°C, tes, This all test cells and	天瀬 7ian Su I I an Su				
38.3.4.2	Requirement	/标准要求:	Pian Su		天棚	Time -	Р				
30.3.4.2 Su	1.Cells and b 样品质量损		oss limit: ≤0.1%	天棚							
	↑ `~ `~		ss than 90%, Ti	he requirement	relating to volta	ge is not	天湖				
			d batteries at fu								
	本 样品试验后 和电芯。	于 开路电压应不 位 一	低于试验前开路	电压的 90%,此	要求不适用于完	全放完电的电池	天概				
	7	· ·	o disassembly, i 无排气、无解体	100000	no fire. 着火现象的发生	夫湖 Tim Su	7 iau - "				
Tian Su	Result 测试结果	天湖 7ian Sii	, co.	天湖 Tian Su	71011 54 ************************************	大·N Pian:	A Su				
Sample No.		re Test 式前	Mind D	· Test 式后	Mass loss	Residual OCV	Test result				
样品编号	Mass 样品质量 (g)	Voltage 开路电压(V)	Mass 样品质量(g)	Voltage 开路电压(V)	质量损失(%)	剩余电压(%)	测试结果				
B01#	189.479	8.367	189.346	8.324	0.07	99.49	Р				
B02#	189.554	8.360	189.402	8.322	0.08	99.55	Р				
B03#	189.512	8.361	189.360	8.323	0.08	99.55	Р				
B04#	189.523	8.373	189.371	8.334	0.08	99.53	Pian 5				
7,000		7 6	8	WA	0.00	554	Р				
B05#	189.486	8.357	189.315	8.315	0.09	99.50	F				
B05# B06#	189.486 189.551	8.357 8.364	189.315	8.315	0.09	99.50	7 ian P				
G	71 an 54	2	(A)		7:ax 5"		XIQ X_VIH				

Other supplements: Test result "P" decides that the test item passes.

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38.3.4	Procedure/	试步骤					ian 5"—
	Test 3: Vibra	tion/测试 3: 振	动头洲	Mian S"	- MA	K GA Tian Su	3
	distorting the be a sinusoid Hz traversed each of three 将电芯和电池加至 200Hz,	cells in such a al wave form w in 15 minutes, mutually perpe 中固地安装在损	manner as to faith a logarithmic This cycle shall endicular mount 表动台的台面上 到 7Hz 为一个循	aithfully transmi c sweep betwee be repeated 12 ing position of t ,然后开始振动 f环,一个循环打	en 7 Hz and 200 2 times for a tota	ne vibration shall Hz and back to 7 I of 3 hours for 形式,以 7Hz 增	天開 7ian Su 開 ian Su
38.3.4.3	Requirement		Fian Su		* ***	支 游	Р
30.3.4.3		atteries Mass lo	oss limit: ≤0.1%	天棚			(A)
	Tean -	损失≤0.1%.					天寶
		2 1/12	•	he requirement Il discharged sta	relating to voltag	ge is not	1,000
	*A			54	要求不适用于完全	全放完电的电池	. XA
	100					_ // . / 0	
	和电芯。						7ian 5u
	3.No leakage			no rupture and i			Jean Su
	3.No leakage			•	no fire. 着火现象的发生	天湖 7:00 54	7ian 54
	3.No leakage 样品(电池 Result			•		天湖 Tian Su Tian S Tian S	7ian Su N Su Zu Zu V
Sample	3.No leakage 样品(电池 Result 测试结果 Befor		C排气、无解体	•	着火现象的发生	渊 7ian S ·Sa	Test
Sample No. 样品编号	3.No leakage 样品(电池 Result 测试结果 Befor	D)应无漏液、列 re Test	C排气、无解体	、无破裂以及无		Residual OCV 剩余电压(%)	Test result 测试结身
No.	3.No leakage 样品(电池 Result 测试结果 Befor Mass	re Test 试前 Voltage	C排气、无解体 Afte 测 Mass	、无破裂以及无 r Test 试后 Voltage	着火现象的发生 Mass loss	Residual OCV	result
No. 样品编号	3.No leakage 样品(电池 Result 测试结果 Befor 测· Mass 样品质量 (g)	re Test 试前 Voltage 开路电压(V)	C排气、无解体 Afte 测 Mass 样品质量(g)	Test 试后 Voltage 开路电压(V)	着火现象的发生 Mass loss 质量损失(%)	Residual OCV 剩余电压(%)	result 测试结身
No. 样品编号 B01#	3.No leakage 样品(电池 Result 测试结果 Befor 测 Mass 样品质量 (g)	D 应无漏液、升 Te Test 试前 Voltage 开路电压(V) 8.324	Afte 別 Mass 样品质量(g) 189.270	T Test 试后 Voltage 开路电压(V) 8.315	着火现象的发生 Mass loss 质量损失(%) 0.04	Residual OCV 剩余电压(%) 99.89	result 测试结身 P
No. 样品编号 B01# B02#	3.No leakage 样品(电池 Result 测试结果 Befor 测 Mass 样品质量 (g) 189.346	D 应无漏液、升	Afte 別 Mass 样品质量(g) 189.270 189.364	下Test 试后 Voltage 开路电压(V) 8.315	着火现象的发生 Mass loss 质量损失(%) 0.04 0.02	Residual OCV 剩余电压(%) 99.89 99.93	result 测试结! P
No. 样品编号 B01# B02# B03#	3.No leakage 样品(电池 Result 测试结果 Befor 测 Mass 样品质量 (g) 189.346 189.402	D 应无漏液、升	Afte 测 Mass 样品质量(g) 189.270 189.364 189.303	T Test 以后 Voltage 开路电压(V) 8.315 8.316	着火现象的发生 Mass loss 质量损失(%) 0.04 0.02 0.03	Residual OCV 剩余电压(%) 99.89 99.93	result 测试结身 P P

Other supplements: Test result "P" decides that the test item passes.

8.322

8.340

189.361

189.267

8.316

8.336

0.01

0.04

99.93

99.95

Ρ

Ρ

其他补充:测试结果"P"代表判定该测试项目通过。

189.380

189.343

B07#

B08#

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38.3.4	Procedure/测	川试步骤					iaa Su —				
天湖 7cm Su 7cm Su 38.3.4.4 54	Test cells and to a half-sine smaller) and subjected to a smaller) and three shocks three mutually 以稳固的托架(或与√100850~masr)须经受最大加	est 4: Shock/测试 4: 冲击 est cells and batteries shall be secured to the testing machine, and each shall be subjected a half-sine shock of peak acceleration of 150gn (or Acceleration(gn)= \(\square\), which is maller) and pulse duration of 6 milliseconds, large cells and large batteries shall be abjected to a half-sine of peak acceleration of 50gn (or Acceleration(gn)= \(\square\), which is maller) and pulse duration of 11 milliseconds. Each cell or battery shall be subjected to ree shocks in the positive direction followed by three shocks in the negative direction of ree mutually perpendicular mounting positions of the cell or battery for a total of 18 shocks. 1. **Rabel **Each** **Rabel **R									
	Requirement/ 1.Cells and b 样品质量损 2.Open circui	atteries Mass lo 失≤0.1%. t voltage not les	oss limit: ≤0.1% ss than 90%, T	he requirement	relating to voltage	ge is not	天湖 Tian Su 天湖 Tian Su				
	样品试验后 和电芯。 3.No leakage	, no venting, no	低于试验前开路 o disassembly,	电压的 90%,此; no rupture and r	要求不适用于完全		7124 - 2" "				
·····································	样品试验后 和电芯。 3.No leakage	开路电压应不值 , no venting, no) 应无漏液、无	低于试验前开路 o disassembly,	电压的 90%,此; no rupture and r	要求不适用于完全		7,000 D**********************************				
Sample No.	样品试验后和电芯。 3.No leakage样品(电池 Result/测试氧	开路电压应不值 , no venting, no) 应无漏液、无	低于试验前开路 o disassembly, 证排气、无解体	电压的 90%,此; no rupture and r	要求不适用于完全		Test result				
Sample No. 样品编号	样品试验后和电芯。 3.No leakage样品(电池 Result/测试氧	开路电压应不信 , no venting, no) 应无漏液、无 告果 re Test	低于试验前开路 o disassembly, 证排气、无解体	电压的 90%,此no rupture and r 、无破裂以及无	要求不适用于完全 no fire. 着火现象的发生	7(as 5)	100				
No.	样品试验后和电芯。 3.No leakage样品(电池 Result/测试结 Befor 测i	开路电压应不信,no venting, no.)应无漏液、无 be Test 式前 Voltage	成于试验前开路 o disassembly, 元排气、无解体 Afte 测 Mass	电压的 90%,此 no rupture and r 、无破裂以及无 r Test 试后 Voltage	要求不适用于完全 no fire. 着火现象的发生。 Mass loss	Residual OCV	result				
No. 样品编号	样品试验后和电芯。 3.No leakage样品(电池 Result/测试结 Befor 测试	开路电压应不信 , no venting, no .) 应无漏液、无 表果 re Test 式前 Voltage 开路电压(V)	成于试验前开路 o disassembly, 元排气、无解体 Afte 测 Mass 样品质量(g)	电压的 90%,此 no rupture and r 、无破裂以及无 r Test 试后 Voltage 开路电压(V)	要求不适用于完全 no fire. 着火现象的发生。 Mass loss 质量损失(%)	Residual OCV 剩余电压(%)	result 测试结果				
No. 样品编号 B01#	样品试验后和电芯。 3.No leakage样品(电池 Result/测试结 Befor 测试 Mass 样品质量(g) 189.270	开路电压应不信,no venting,no)应无漏液、无 是果 ee Test 式前 Voltage 开路电压(V) 8.315	成于试验前开路 o disassembly, 元排气、无解体 Afte 测 Mass 样品质量(g) 189.232	电压的 90%,此 no rupture and r 、无破裂以及无 r Test 试后 Voltage 开路电压(V) 8.309	要求不适用于完全 no fire. 着火现象的发生。 Mass loss 质量损失(%)	Residual OCV 剩余电压(%) 99.93	result 测试结果 P				
No. 样品编号 B01# B02#	样品试验后和电芯。 3.No leakage 样品(电池 Result/测试结 Befor 测i Mass 样品质量(g) 189.270	开路电压应不信,no venting,no)应无漏液、无 生果 Te Test 式前 Voltage 开路电压(V) 8.315 8.316	成于试验前开路 o disassembly, 元排气、无解体 Afte 测 Mass 样品质量(g) 189.232 189.326	电压的 90%,此 no rupture and r 、无破裂以及无 r Test 试后 Voltage 开路电压(V) 8.309	要求不适用于完全 no fire. 着火现象的发生 Mass loss 质量损失(%) 0.02	Residual OCV 剩余电压(%) 99.93 99.98	result 测试结界 P P				
No. 样品编号 B01# B02# B03#	样品试验后和电芯。 3.No leakage样品(电池 Result/测试结 Befor测试 Mass样品质量(g) 189.270 189.364 189.303	开路电压应不价,no venting, no.) 应无漏液、无 ** 上 Te Test 武前 Voltage 开路电压(V) 8.315 8.316 8.316	成于试验前开路 disassembly, 元排气、无解体 Afte 测 Mass 样品质量(g) 189.232 189.326 189.265	电压的 90%,此 no rupture and r 、无破裂以及无 r Test 试后 Voltage 开路电压(V) 8.309 8.314 8.308	要求不适用于完全 no fire. 着火现象的发生 Mass loss 质量损失(%) 0.02 0.02	Residual OCV 剩余电压(%) 99.93 99.98 99.90	result 测试结界 P P				
No. 样品编号 B01# B02# B03# B04#	样品试验后和电芯。 3.No leakage样品(电池 Result/测试结 Befor测计 Mass样品质量(g) 189.270 189.364 189.303 189.314	所 中 B 电 压 应 不 f	Mass 样品质量(g) 189.232 189.257	电压的 90%,此 no rupture and r 、无破裂以及无 r Test 试后 Voltage 开路电压(V) 8.309 8.314 8.308	要求不适用于完全 no fire. 着火现象的发生 Mass loss 质量损失(%) 0.02 0.02 0.02	Residual OCV 剩余电压(%) 99.93 99.98 99.90 99.92	result 测试结别 P P P				
No. 样品编号 B01# B02# B03# B04# B05#	样品试验后和电芯。 3.No leakage样品(电池 Result/测试结 Befor测计 Mass样品质量(g) 189.270 189.364 189.303 189.314 189.277	所路电压应不信 , no venting, no) 应无漏液、元 表果 re Test 式前 Voltage 开路电压(V) 8.315 8.316 8.316 8.329 8.305	成于试验前开路 disassembly, 证排气、无解体 Afte 测 Mass 样品质量(g) 189.232 189.326 189.265 189.257	电压的 90%,此: no rupture and r 、无破裂以及无 r Test 试后 Voltage 开路电压(V) 8.309 8.314 8.308 8.322 8.300	要求不适用于完全 no fire. 着火现象的发生 Mass loss 质量损失(%) 0.02 0.02 0.02 0.03 0.02	Residual OCV 剩余电压(%) 99.93 99.98 99.90 99.92	result 测试结界 P P P				

Other supplements: Test result "P" decides that the test item passes.

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38.3.4	Procedure/测试步骤		ian Su—
	Test 5: External short	circuit/测试 5:外部短路	o Tean Su
7 ian Su 7 ian Su 38.3.4.5	temperature reaches 57 condition with a total ex condition is continued for has returned to 57±4°C, to be concluded. 保持试验环境温度稳定在度下,将其正负极用小元	tested shall be temperature stabilized so to tested shall be temperature stabilized so to ternal resistance of less than 0.1 ohm at 5 or at least one hour after the cell or battery the cell or battery must be observed for a test to the cell or battery must be observed for a test to the cell or battery must be observed for a test to the cell or battery must be observed for a test to the cell or battery must be observed for a test to the cell or battery must be observed for a test to the cell or battery must be observed for a test to the cell or battery must be observed for a test to the cell or battery must be observed for a test to the cell or battery must be observed for a test to the cell or battery	subjected to a short circuit 7±4℃, This short circuit external case temperature further six hour for the test six 57±4℃, 然后, 在此温表温度恢复到 57±4℃之后
	Requirement/标准要求:		u EM
	1.Cells and batteries me 170℃; 电芯或电池的外壳温质	eet this requirement if their external tempe 度应不超过 170℃;	rature does not exceed
		upture and no fire during the test and withi	n six hours after this test.
	Result 测试结果	7(an 5 th 7(an 5 th	天瀬 Tian Su
Sample No. 样品编号	·····································	Max External Temp 样品表面最高温度(℃)	Test result 测试结!
B01#	7100-	58.0 £ M	P
B02#	7ian Su	57.6	Film P
B03#	71an 5a	58.0 £ M	Tian St. Tian P
	NIA Su	57.4	7ias Su P
B04#			
B04#	· · · · · · · · · · · · · · · · · · ·	57.2	Su
	F Ville 71au -	57.2 58.5	54 F. M. 9144 SH P. 1944 SH P. 19
B05#	所 天 (M) 7 (au 5 u) 天 (M) 7 (au 5 u)	7ion 5"	长潮 "

Rep.	No.:T	SZ220	40074	4-P01	-R01
I VOP.	110		,		

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Test 6: CrushImpact/ 测试6: 挤压(不适用) 擅击(适用) 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; (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. 电速态表程皮电池运在两个平面间标压。接压在第一个核触点以约1.5cm/s 的线度慢慢差分,发到下面工作模块之一达到为止: (a)作用力达到 13kN±0.78kN; (b)电池运程序和最初比较变形至少50%。 —且达到最大压力,电压障超过100 mV、或者电池芯变形超过50%。压力应该解除。 Impact 控击 (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 ± 0.1 kg mass is to be dropped from a height of 61 ± 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 ± 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. Cells and component cells meet this requirement if their external temperature does not exceed 170°C and there is no disassembly and no fire during the test and within six hours after this test. (泛用于直径不开手 18 毫米的圆柱形式 100°C。 自然整理,并且是有效的表面,并且是有效的表面,并且是有效的表面,并且	"S"—	Procedure/测试步骤
新压 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; (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. 电池支或组成电池之在两个平面间挤压。挤压在第一个接触点以约 1.5cm/s 的速度慢慢进行,复到下面三个金顶之一达到步上; (a)作用力达到 13kN±0.78kN; (b)电池志电压降至少达到 100mV; (c)电池厚度和最初比较变形至少 50%。 — 亘达到最大压力,电压降超过 100 mV 或者电池支变形超过 50%,压力应该解除。 Impact 整击 38.3.4.6 (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 ± 0.1 kg mass is to be dropped from a height of 61 ± 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 ± 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. Cells and component cells meet this requirement if their external temperature does not exceed 170°C and there is no disassembly and no fire during the test and within six hours after this test. (适用于直径中,中面上面上面上面上面上面上面上面上面上面上面上面上面上面上面上面上面上面上面	41.	测试 6: 挤压(不适用)
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; (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. 电池交或组成电池交在两个平面间挤压。挤压在第一个接触点以约 1.5cm/s 的速度慢慢进行,直到下面三个运现之一达到为止: (a)作用力达到 13kN±0.78kN; (b)电池发电压降至少达到 100mV; (c)电池厚度和最初比较变形至少 50%。 —且达到最大压力,电压降超过 100 mV 或者电池芯变形超过 50%,压力应该解除。 Impact 搜击 ①.1 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 ± 0.1 kg mass is to be dropped from a height of 61 ± 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 ± 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. Cells and component cells meet this requirement if their external temperature does not exceed 170°C and there is no disassembly and no fire during the test and within six hours after this test. (延用于重译不小于 18 毫米的圆柱形电池将电池将电池将岛平放在一个平面上,其纵轴平行升测弦后面条,将一度检索 15.8 mm ± 0.1 mm diameter curved ourface king from the flat and the surface and perpendicular to the longitudinal axis of the 15.8 mm ± 0.1 mm diameter curved ourface king from the flat surface and perpendicular to the longitudinal exis of the 15.8 mm ± 0.1 mm diameter curved s		
(b) The voltage of the cell drops by at least 100 mV; (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,重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)电池对度和最初比较变形至少 50%。 — 且达到最大压力,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 ± 0.1 kg mass is to be dropped from a height of 61 ± 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 ± 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. Cells and component cells meet this requirement if their external temperature does not exceed 170°C and there is no disassembly and no fire during 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,其纵轴平行到试台面车,将一直经为15.8 mm ± 0.1 mm 的 316 型不锈钢棒,无起火现象发生。Requirement/标准要求: 1.Cells and component cells meet this requirement if their external temperature does not exceed 170°C;		gradual with a speed of approximately 1.5 cm/s at the first point of contact. The crushing is
(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 13kN40.78kN; (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%。 —且达到最大压力,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 ± 0.1 kg mass is to be dropped from a height of 61 ± 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 ± 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. Cells and component cells meet this requirement if their external temperature does not exceed 170°C and there is no disassembly and no fire during the test and within six hours after this test. (运用于直径不小于 18 毫米的圆柱形电池)将电池或元件电池样晶平放在一个平面上,其纵轴平行于测试台面车,将一直径为 15.8 mm ± 0.1 mm 的 316 型不锈钢棒械放在电池中心位置。然后,将一直径对 15.8 mm ± 0.1 mm 的 316 型不锈钢棒械放在电池中心位置。然后,将一直径对 15.8 mm ± 0.7 mm 前 316 型不锈钢棒, 无起火现象发生。Requirement/标准要求: 1. Cells and component cells meet this requirement if their external temperature does not exceed 170°C;		(a) The applied force reaches 13kN±0.78kN;
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. 电池态或组成电池态在两个平面间挤压。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)电池龙电压降至少达到 100mV; (c)电池厚度和最初比较变形至少 50%。 —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 ± 0.1 kg mass is to be dropped from a height of 61 ± 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 ± 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. Cells and component cells meet this requirement if their external temperature does not exceed 170°C and there is no disassembly and no fire during the test and within six hours after this test. (返用于直径不小于 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,其级轴平行于测试台面车,将一直径为 15.8 mm ± 0.1 mm 的 316 型不锈钢棒横放在电池中心位置。然后,将一直径为 15.8 mm ± 0.1 mm 的 316 型不锈钢棒横放在电池中心位置。然后,将一直径 为 15.8 mm ± 0.7 mm 的 316 型不锈钢棒, 无起火现象发生。 Requirement/标准要求: 1. Cells and component cells meet this requirement if their external temperature does not exceed 170°C;		(b) The voltage of the cell drops by at least 100 mV;
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%。 —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 ± 0.1 kg mass is to be dropped from a height of 61 ± 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 ± 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. Cells and component cells meet this requirement if their external temperature does not exceed 170°C and there is no disassembly and no fire during 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,其级轴平行于测试台面车,将一直径为 15.8 mm ± 0.1 mm 的 316 型不锈钢棒械放在电池中心位置。然后,将一直径为 9.1 kg ± 0.1 kg 的物体从 61±2.5 cm 的高度落向样品。样品在进行试验时,其外表温度应不翻过 170°C。且试验结束后 6 个小时之内,样品在工解体、无足火现象发生。Requirement/标准要求: 1. Cells and component cells meet this requirement if their external temperature does not exceed 170°C;		(c) The cell is deformed by 50% or more of its original thickness.
(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%。 —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 ± 0.1 kg mass is to be dropped from a height of 61 ± 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 ± 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. Cells and component cells meet this requirement if their external temperature does not exceed 170°C and there is no disassembly and no fire during 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 kg ± 0.1 kg 的物体从 61±2.5 cm 的高度落向样品。样品在进行试验时,其外表温度应不超过 170℃。且试验结束后 6 个小时之内,样品应无解体、无起火观象发生。 Requirement/标准要求: 1.Cells and component cells meet this requirement if their external temperature does not exceed 170℃;		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
(b)电池志电压降至少达到 100mV; (c)电池厚度和最初比较变形至少 50%。 —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 ± 0.1 kg mass is to be dropped from a height of 61 ± 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 ± 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. Cells and component cells meet this requirement if their external temperature does not exceed 170°C and there is no disassembly and no fire during 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车,将一直径为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 kg ± 0.1 kg 的物体从61±2.5 cm 的高度落向样品,样品在进行试验时,其外表温度应不超过170°C。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。Requirement/标准要求: 1.Cells and component cells meet this requirement if their external temperature does not exceed 170°C;		Time 1
(c)电池厚度和最初比較变形至少 50%。 —且达到最大压力,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 ± 0.1 kg mass is to be dropped from a height of 61 ± 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 ± 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. Cells and component cells meet this requirement if their external temperature does not exceed 170°C and there is no disassembly and no fire during 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,将一直径为 15.8 mm ± 0.1 mm 的 316 型不锈钢棒模放在电池中心位置。然后,将一质量为 9.1 kg ± 0.1 kg 的物体从 61±2.5 cm 的高度落向样品、样品在进行试验时,其外表温度应不超过 170°C。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。 Requirement/标准要求: 1. Cells and component cells meet this requirement if their external temperature does not exceed 170°C;		Salas E VIII
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perpendicular to the longitudinal axis of the 15.8 mm ± 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. Cells and component cells meet this requirement if their external temperature does not exceed 170°C and there is no disassembly and no fire during 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 kg ± 0.1 kg 的物体从 61±2.5 cm 的高度落向样品。样品在进行试验时,其外表温度应不超过 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。 Requirement/标准要求: 1.Cells and component cells meet this requirement if their external temperature does not exceed 170℃;		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
exceed 170°C and there is no disassembly and no fire during 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 kg ± 0.1 kg 的物体从 61±2.5 cm 的高度落向样品。样品在进行试验时,其外表温度应不超过 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。 Requirement/标准要求: 1.Cells and component cells meet this requirement if their external temperature does not exceed 170℃;		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
平行于测试台面年,将一直径为 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 kg ± 0.1 kg 的物体从 61±2.5 cm 的高度落向样品。样品在进行试验时,其外表温度应不超过 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。 Requirement/标准要求: 1.Cells and component cells meet this requirement if their external temperature does not exceed 170℃;		exceed 170°C and there is no disassembly and no fire during the test and within six hours
1.Cells and component cells meet this requirement if their external temperature does not exceed 170°C;		平行于测试台面年,将一直径为 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 kg ± 0.1 kg 的物体从 61±2.5 cm 的高度落向样品。样品在进行试验时,
exceed 170°C;		Requirement/标准要求:
2 VIII		
电芯的外壳温度应不超过 170℃:		2 WN
SIA IV		电芯的外壳温度应不超过 170℃;
2. No disassembly, no fire during the test and within six hours after this test.		2. No disassembly, no fire during the test and within six hours after this test.



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o Jian u	Result 测试结果	天湖 天湖 Tian Su	F WIL Tian Su
Sample No. 样品编号	OCV prior to test 试验前电压(V)	Max External Temp 样品表面最高温度(℃)	Test result 测试结果
C01#	3.823	24.3 Kill	P M
C02#	3.821	7 M 24.5	P
C03#	3.841 7 Jan S	24.7	Р
C04#	3.836	24.6	7 ian Su P
C05#	7 ian Su 3.831 Fin Su	24.7	Р
C06#	3.834	24.7	5" P
C07#	7:u 5u 3.836 * WA	25.1 Tem 54	P WAS
C08#	3.842	24.9	Р
C09#	3.825	24.3	P
C10#	3.844	24.7	Р

Other supplements: Test result "P" decides that the test item passes.

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38.3.4	Procedure/测试步骤	ian Su—		
- 14A	Test 7: Overcharge/测试 7: 过度充电			
7 (an Su 14 (an Su 188.3.4.7 188.3.4.7	When the manufacturer's recommended charge voltage is not more than 18V, the minimum voltage of the test shall be the lesser of two times the maximum charge voltage of the or 22V, whichever is less. When the manufacturer's recommended charge voltage is more than 18V, the charging voltage of the test shall be 1.2 times maximum charge voltage. The charging current is 2 times of the maximum charging current recommended by the manufacturer. 如果厂家推荐的充电电压不超过 18V,本测试的最小充电电压应该是两倍的厂家标定最大充电电压或者是 22V,取其中较小者。如果厂家推荐的充电电压超过 18V,充电电压应该为 1.2倍的厂家标定最大充电电压。充电电流为厂家推荐的最大充电电流 2 倍。			
	Requirements/标准要求: No disassembly and no fire during the test and within seven days after the test. 试验样品在试验中和试验后 7 天内,应无解体和无起火现象发生。			
	Set II is a set of the			
	Result 测试结果 5 7 7 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	7ian Su		
Sample No. 样品编号	を (6) を (6	Test result 测试结果		
91005	测试结果 OCV prior to test			
样品编号	测试结果 OCV prior to test 试验前电压 (V)	测试结果		
样品编号 B09#	测试结果 OCV prior to test 试验前电压 (V) 8.378	测试结果 P		
样品编号 B09# B10#	测试结果 OCV prior to test 试验前电压 (V) 8.378 8.364	测试结果 P P		
样品编号 B09# B10# B11#	测试结果 OCV prior to test 试验前电压 (V) 8.378 8.364 8.377	测试结果 P P		
样品编号 B09# B10# B11# B12#	测试结果 OCV prior to test 试验前电压 (V) 8.378 8.364 8.377 8.378	测试结果 P P P		
样品编号 B09# B10# B11# B12# B13#	测试结果 OCV prior to test 试验前电压 (V) 8.378 8.364 8.377 8.378	测试结果 P P P		

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38.3.4	Procedure/测试步骤		- 美剛	***	Tian Su	
天湖 71an Su 71an Su 38.3.4.8 天湖 71an Su	Test 8: Forced discharge/测试 8: 强制放电					
	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。 Requirements/标准要求: No disassembly and no fire during the test and within seven days after the test. 试验样品在试验中和试验后 7 天内,应无解体和无起火现象发生。					
	Sample No. 样品编号	OCV prior to test 试验前电压(V)	Test result 测试结果	Sample No. 样品编号	OCV prior to test 试验前电压(V)	Test result 测试结果
C11#	3.317	P	C21#	3.328	Р	
C12#	3.308	71ax 5 ^a P	C22#	3.297	P	
C13#	3.336	o P Fian	C23#	3.347	Р	
C14#	3.346	Р	C24#	3.336	P P	
C15#	3.348	P. 5	C25#	3.315	Р	
C16#	3.304	Р	C26#	3.305	a S	
C17#	3.318	F VIII P	C27#	3.311	P	
	2 (2)	Р	C28#	3.318	Р	
C18#	3.308	75-2				
₹ VIII Z Su	3.308 Su 3.327	P P	C29#	7 in 3.339	F.P.S	

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