检测报告
UN38.3

Name of sample:	Li-ion Battery
产品名称：	锂离子电池
Client:	FOSHAN HND Battery Co. , Ltd.
委托单位：	佛山市焕能达电池有限公司
Classification:	Commission Test
检测类别：	委托测试

Name of samples: Li-ion Battery 样品名称: 锂离子电池	Trade mark: - 商标: -
Commissioned by: FOSHAN HND Battery Co. , Ltd. 委托单位: 佛山市焕能达电池有限公司	Commissioner address: Shop 16, 3RD floor, Guangfu Weichuanghui, No. 3, Liangui West Road, Yanbu Lian'an Guangfu 委托单位地址: 佛山市南海区大沥镇盐步联安广佛新干线联桂西路 3 号广佛伟创汇第三层第 16 号铺
Manufacturer by: FOSHAN HND Battery Co. , Ltd. 制造单位: 佛山市焕能达电池有限公司	Manufacturer address: Shop 16, 3RD floor, Guangfu Weichuanghui, No. 3, Liangui West Road, Yanbu Lian'an Guangfu 制造单位地址: 佛山市南海区大沥镇盐步联安广佛新干线联桂西路 3 号广佛伟创汇第三层第 16 号铺
Manufacturer's Contact Information 制造商联系信息: Phone:13824506106 Email:1750178849@qq.com	Manufacturer's Web Site 制造商网址: -
Type/Model 型号规格: H N D 7 5 3 9 6 2	shape: Prismatic 样品形状: 棱柱形
Appearance color: Silver 样品颜色: 银白色	Sample size 样品尺寸: T(7.62mm)*W(39.43mm)*L(61.89mm)
Rated info. 额定信息: 3.7V/2300mAh/8.51Wh	Cell quantity 组成电芯数量：1PCS
Quantity of sample: 30cells+18batteries 样品数量：30 个电芯+18 个电池	Cell model 电芯型号: HND 753962
Limited charge voltage 充电限制电压: 4.2V	Cut-off voltage 放电截止电压: 3.0V
Standard charge current 标准充电电流: 4 6 0mA	Max continuous charge current 最大持续 充电电流: 1 1 5 0 0mA
Standard discharge current 标准放电电流: 4 6 0mA	Max continuous discharge current 最大持续放电电流: 1 1 5 0mA
Receiving date 接样日期: 2020 年 12 月 29 日	Sample identification 样品标识序号: B1#-B16#/C1#-C30#
Completing date 完成日期: 2021 年 1 月 7 日	Test item: 8 items 测试项目: 8 项

Test conclusion:
检测结论:

The Li-ion Battery submitted by FOSHAN HND Battery Co. , Ltd. are tested according to Section 38.3 of the Sixth Revised Edition Amendment 1 of the Recommendations on the Transport of Dangerous Goods, Manual of Test and Criteria (ST/SG/AC.10/11/Rev.6/Amend.1/Section38.3). The test results comply with the relevant requirements of the standard.

由佛山市焕能达电池有限公司送检的锂离子电池，依据《关于危险品货物运输的建议书 试验和标准手册第六修订版修正 1 第 38.3 节进行检测，测试结果符合标准相关要求。

Date of issue:January 11,2021
签发日期:2021 年 1 月 11 日

批准\Approved by
技术负责人\
Technology Supervisor

审核\Reviewed by
项目工程师\
Project Engineer

主检\Tested by
测试工程师\
Test Engineer

Description and illustration of the sample:
样品说明及描述:

Test item 测试项目	Sample No. 样品编号	State 状态	Remark 备注
T.1~T.5	B1#~B5#	at first cycle in fully charged states; 在第一个循环完全充电;	Battery 电池
	B6#~B10#	after 25 cycles ending in fully charged states; 在第二十五个循环完全充电;	
T.6	C1#~C5#	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 电芯
	C6#~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;	
T.7	B11#~B14#	at first cycle in fully charged states; 在第一个循环完全充电;	Battery 电池
	B15#~B18#	after 25 cycles ending in fully charged states; 在第二十五个循环完全充电;	
T.8	C11#~C20#	at first cycle in fully discharged states; 在第一个循环完全放电;	Cell 电芯
	C21#~C30#	after 25 cycles ending in fully discharged states; 在第二十五个循环完全放电;	

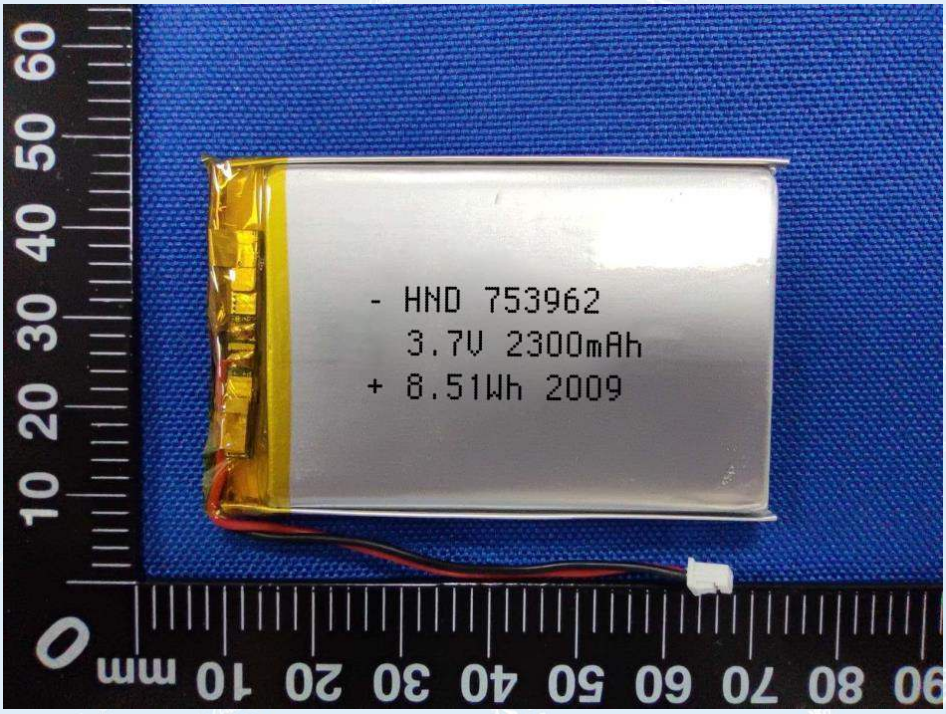
Description of the sampling procedure:
取样程序的说明:
N/A

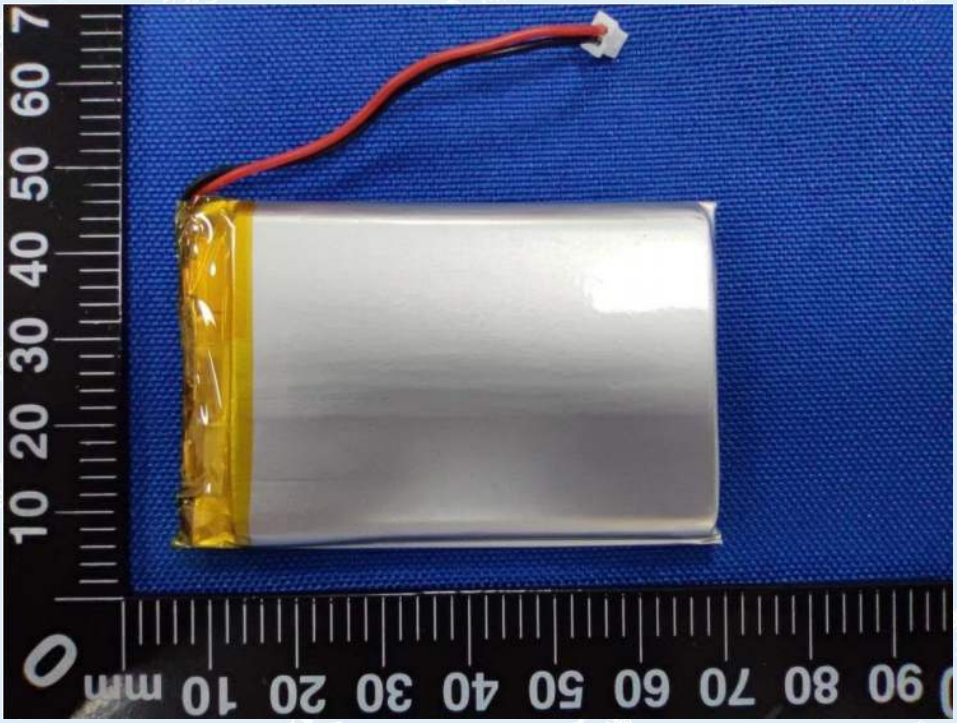
Description of report revision ：
报告修订的说明：

Remarks:
备注：

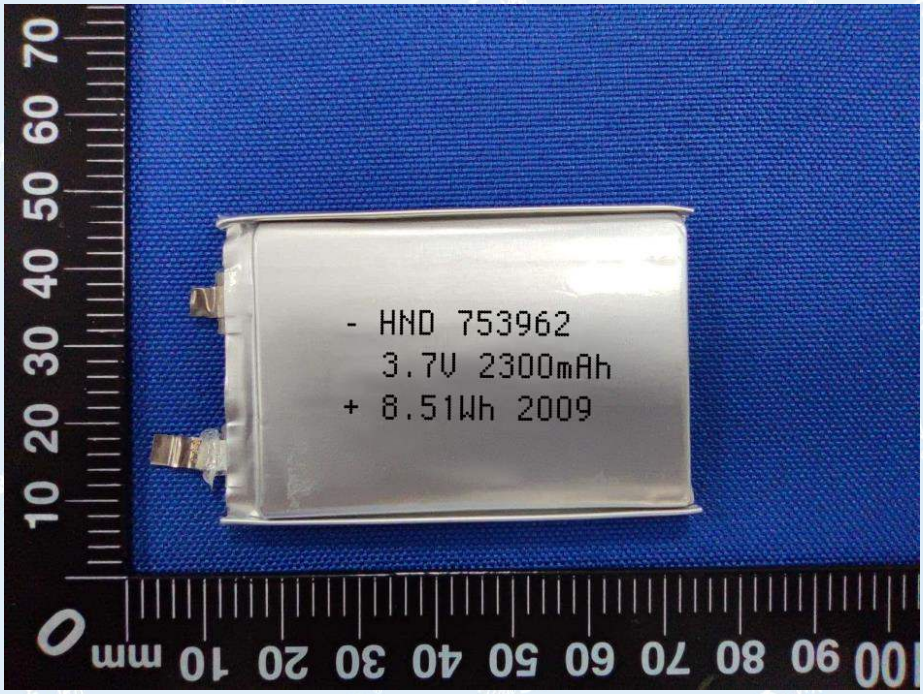
The Li-ion Battery submitted by FOSHAN HND Battery Co. , Ltd. are single cell batteries.
由佛山市焕能达电池有限公司所送的锂离子电池是单电芯电池。

Photos of Battery\电池图片





Photos of Cell\电芯图片





38.3.4	Procedure/测试步骤	—
38.3.4.1	**Test 1: Altitude simulation/测试 1：高度模拟**	P
	Test cells and batteries shall be stored at a pressure of 11.6kPa or less for at least six hour at ambient temperature (20±5℃) . 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： 1.Cells and batteries Mass loss limit: ≤0.2% . 样品质量损失≤0.2%。 2.Open circuit voltage not less than 90%, The requirement relating to voltage is not applicable to test cells and batteries at full discharged states. 样品试验后开路电压应不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和电芯。 3.No leakage, no venting, no disassembly, no rupture and no fire. 样品（电池）应无漏液、无排气、无解体、无破裂以及无着火现象的发生。	
	Result **测试结果**	

Sample No. 样品编号	Before test 测试前		After Test 测试后		Mass loss 质量损失(%)	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)			
B1#	17.167	4.167	17.165	4.167	0.01	100.00	P
B2#	17.164	4.178	17.164	4.176	0.00	99.95	P
B3#	17.169	4.163	17.169	4.163	0.00	100.00	P
B4#	17.158	4.173	17.158	4.173	0.00	100.00	P
B5#	17.161	4.161	17.159	4.160	0.01	99.98	P
B6#	17.156	4.174	17.156	4.174	0.00	100.00	P
B7#	17.166	4.163	17.166	4.163	0.00	100.00	P
B8#	17.162	4.176	17.162	4.176	0.00	100.00	P
B9#	17.167	4.176	17.167	4.176	0.00	100.00	P
B10#	17.166	4.169	17.165	4.168	0.01	99.98	P

Other supplements ： Test result "P" decides that the test item passes.
其他补充：测试结果“P”代表判定该测试项目通过。

38.3.4	**Procedure/测试步骤**	—
38.3.4.2	**Test 2: Thermal test/测试 2：温度测试** Test cells and batteries are to be stored for at least six hours at a test temperature equal to 72±2℃, followed by storage for at least six hours at a test temperature equal to -40±2℃, The maximum time interval between test temperature extremes in 30 minutes, This procedure is to be repeated until 10 total cycles are complete, after which all test cells and batteries are to be stored for 24 hours at ambient temperature (20±5℃). 将电芯和电池在温度为 72±2℃的条件下贮存不少于 6 个小时，然后，在温度-40±2℃条件下贮存不少于 6 个小时，两个温度间的间隔最长为 30min,重复操作上述步骤直到 10 次，然后，将其在环境温度为 20±5℃的条件下放置 24 个小时。 Requirement/标准要求： 1.Cells and batteries Mass loss limit: ≤0.2% . 样品质量损失≤0.2%. 2.Open circuit voltage not less than 90%, The requirement relating to voltage is not applicable to test cells and batteries at full discharged states. 样品试验后开路电压应不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和电芯。 3.No leakage, no venting, no disassembly, no rupture and no fire. 样品（电池）应无漏液、无排气、无解体、无破裂以及无着火现象的发生。	**P**

Result
测试结果

Sample No. 样品编号	Before test 测试前		After Test 测试后		Mass loss 质量损失(%)	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)			
B1#	17.165	4.167	17.159	4.162	0.03	99.88	P
B2#	17.164	4.176	17.158	4.170	0.03	99.86	P
B3#	17.169	4.163	17.164	4.158	0.03	99.88	P
B4#	17.158	4.173	17.152	4.168	0.03	99.88	P
B5#	17.159	4.160	17.151	4.155	0.05	99.88	P
B6#	17.156	4.174	17.149	4.169	0.04	99.88	P
B7#	17.166	4.163	17.160	4.157	0.03	99.86	P
B8#	17.162	4.176	17.157	4.170	0.03	99.86	P
B9#	17.167	4.176	17.162	4.171	0.03	99.88	P
B10#	17.165	4.168	17.160	4.163	0.03	99.88	P

Other supplements ： Test result "P" decides that the test item passes.
其他补充： 测试结果“P”代表判定该测试项目通过。

38.3.4	**Procedure/测试步骤**	—
38.3.4.3	**Test 3: Vibration/测试 3：振动** 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. 将电芯和电池牢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。 Requirement/标准要求： 1.Cells and batteries Mass loss limit: ≤0.2%. 样品质量损失≤0.2%. 2.Open circuit voltage not less than 90%, The requirement relating to voltage is not applicable to test cells and batteries at full discharged states. 样品试验后开路电压应不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和电芯。 3.No leakage, no venting, no disassembly, no rupture and no fire. 样品（电池）应无漏液、无排气、无解体、无破裂以及无着火现象的发生。	**P**

Result
测试结果

Sample No. 样品编号	Before test 测试前		After Test 测试后		Mass loss 质量损失(%)	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)			
B1#	17.159	4.162	17.159	4.162	0.00	100.00	P
B2#	17.158	4.170	17.158	4.168	0.00	99.95	P
B3#	17.164	4.158	17.163	4.158	0.01	100.00	P
B4#	17.152	4.168	17.152	4.168	0.00	100.00	P
B5#	17.151	4.155	17.151	4.154	0.00	99.98	P
B6#	17.149	4.169	17.149	4.169	0.00	100.00	P
B7#	17.160	4.157	17.156	4.157	0.02	100.00	P
B8#	17.157	4.170	17.157	4.170	0.00	100.00	P
B9#	17.162	4.171	17.162	4.171	0.00	100.00	P
B10#	17.160	4.163	17.159	4.162	0.01	99.98	P

Other supplements ： Test result "P" decides that the test item passes.
其他补充： 测试结果“P”代表判定该测试项目通过。

38.3.4	**Procedure/测试步骤**	—
38.3.4.4	**Test 4: Shock/测试 4：冲击** Test cells and batteries shall be secured to the testing machine, and each shall be subjected to a half-sine shock of peak acceleration of 150gn (or Acceleration(gn)= $\sqrt{\left(\frac{100850}{mass}\right)}$, which is smaller) and pulse duration of 6 milliseconds, large cells and large batteries shall be subjected to a half-sine of peak acceleration of 50gn (or Acceleration(gn)= $\sqrt{\left(\frac{30000}{mass}\right)}$, 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。对每个电芯或电池以峰值为 150gn（或与$\sqrt{\left(\frac{100850}{mass}\right)}$中的较小值）的半正弦的加速度撞击，脉冲持续 6 毫秒，大型电池和大型电池组须经受最大加速度 50gn（或与$\sqrt{\left(\frac{30000}{mass}\right)}$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。 Requirement/标准要求： 1.Cells and batteries Mass loss limit: ≤0.2%. 样品质量损失≤0.2%. 2.Open circuit voltage not less than 90%, The requirement relating to voltage is not applicable to test cells and batteries at full discharged states. 样品试验后开路电压应不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和电芯。 3.No leakage, no venting, no disassembly, no rupture and no fire. 样品（电池）应无漏液、无排气、无解体、无破裂以及无着火现象的发生。	**P**

Result/测试结果

Sample No. 样品编号	Before test 测试前		After Test 测试后		Mass loss 质量损失(%)	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)			
B1#	17.159	4.162	17.156	4.162	0.02	100.00	P
B2#	17.158	4.168	17.158	4.168	0.00	100.00	P
B3#	17.163	4.158	17.163	4.157	0.00	99.98	P
B4#	17.152	4.168	17.152	4.168	0.00	100.00	P
B5#	17.151	4.154	17.151	4.153	0.00	99.98	P
B6#	17.149	4.169	17.148	4.169	0.01	100.00	P
B7#	17.156	4.157	17.156	4.157	0.00	100.00	P
B8#	17.157	4.170	17.157	4.170	0.00	100.00	P
B9#	17.162	4.171	17.162	4.171	0.00	100.00	P
B10#	17.159	4.162	17.156	4.161	0.02	99.98	P

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

其他补充： 测试结果“P”代表判定该测试项目通过。

38.3.4	**Procedure/测试步骤**	—
38.3.4.5	**Test 5: External short circuit/测试 5：外部短路** The cell or battery to be tested shall be temperature stabilized so that its external case temperature reaches 57±4℃ and then the cell or battery shall be subjected to a short circuit condition with a total external resistance of less than 0.1 ohm at 57±4℃, This short circuit condition is continued for at least one hour after the cell or battery external case temperature has returned to 57±4℃, the cell or battery must be observed for a further six hour for the test to be concluded. 保持试验环境温度稳定在 57±4℃，以使电芯或电池样品外表温度达到 57±4℃，然后，在此温度下，将其正负极用小于 0.1 欧姆的线路短接，待电芯或电池的外表温度恢复到 57±4℃之后再持续 1 小时以上，对电芯或电池必须进一步观察 6 个小时才能下结论。 Requirement/标准要求： 1.Cells and batteries meet this requirement if their external temperature does not exceed 170℃; 电芯或电池的外壳温度应不超过 170℃； 2. No disassembly, no rupture and no fire during the test and within six hours after this test. 试验后 6 小时内无解体、无破裂、无起火。	**P**

Result
测试结果

Sample No. 样品编号	**Max External Temp** **样品表面最高温度(℃)**	Test result 测试结果
B1#	57.1	P
B2#	58.4	P
B3#	57.1	P
B4#	58.4	P
B5#	57.3	P
B6#	57.7	P
B7#	57.7	P
B8#	58.5	P
B9#	57.3	P
B10#	57.3	P

Other supplements ： Test result "P" decides that the test item passes.
其他补充：测试结果“P”代表判定该测试项目通过。

38.3.4	**Procedure/测试步骤**	—
38.3.4.6	**Test 6: Crush\Impact/** **测试 6：挤压(适用)** **撞击(不适用)**	**P**
	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 ± 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、无起火现象发生。	
	Requirements/标准要求： 1.Cells and component cells meet this requirement if their external temperature does not exceed 170℃; 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. 试验后 6 小时内无解体、无起火。	

	Result **测试结果**		
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**
C1#	3.716	27.2	P
C2#	3.704	26.1	P
C3#	3.722	26.9	P
C4#	3.736	27.5	P
C5#	3.713	26.6	P
C6#	3.729	27.6	P
C7#	3.701	26.8	P
C8#	3.736	26.1	P
C9#	3.692	27.8	P
C10#	3.725	26.8	P

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

其他补充：测试结果“P”代表判定该测试项目通过。

38.3.4	**Procedure/测试步骤**	—
38.3.4.7	**Test 7: Overcharge/测试 7：过度充电** 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。 **Result** **测试结果**	**P**

Sample No. 样品编号	**OCV prior to test** **试验前电压（V）**	Test result 测试结果
B11#	4.162	P
B12#	4.168	P
B13#	4.155	P
B14#	4.168	P
B15#	4.153	P
B16#	4.168	P
B17#	4.157	P
B18#	4.169	P

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

其他补充：测试结果"P"代表判定该测试项目通过。

38.3.4	Procedure/测试步骤	—
38.3.4.8	**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。	P

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	Sample No. 样品编号	OCV prior to test 试验前电压（V）	Test result 测试结果
C11#	3.321	P	C21#	3.328	P
C12#	3.296	P	C22#	3.332	P
C13#	3.341	P	C23#	3.302	P
C14#	3.312	P	C24#	3.334	P
C15#	3.324	P	C25#	3.323	P
C16#	3.311	P	C26#	3.311	P
C17#	3.319	P	C27#	3.337	P
C18#	3.295	P	C28#	3.344	P
C19#	3.321	P	C29#	3.346	P
C20#	3.324	P	C30#	3.345	P

Other supplements ： Test result "P" decides that the test item passes.
其他补充：测试结果“P”代表判定该测试项目通过。

STATEMENTS

声　　明

1. The test report is invalid without the official stamp of Tiansu.
   本报告无检测单位印章无效。

2. Nobody is allowed to photocopy or partly photocopy this test report without written permission of Tiansu.
   未经本试验室书面同意，不得部分地复制本报告。

3. The test report is invalid without the signatures of Ratifier, Reviewer and Testing engineer.
   本报告无批准人、审核人及鉴定人签名无效。

4. The test report is invalid if altered.
   本报告涂改无效。

5. Objections to the test report must be submitted to Tiansu within 15 days.
   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。

6. The test report is valid for the tested samples only.
   本报告仅与送检样品有关。

——————————报告结束——————————

UN38.3 锂电池试验信息概要

UN38.3 Lithium Battery Test Summary

No.：TCTTJ20201214399ZB-TS01

UN38.3 报告信息	UN38.3 试验报告编号 UN38.3 test report No.:	TCTTJ20201214399ZB-BR01	UN38.3 签发日期: Issue Date:	2021 年 1 月 11 日
样品信息 Sample info.	电池类型\Battery Type	☐锂离子电芯 ☒锂离子电池 ☐锂离子单电芯电池 ☐锂金属电芯 ☐锂金属电池 ☐锂金属单电芯电池		
	样品名称\Sample name	锂离子电池\Li-ion Battery	锂含量\Lithium content	不适用 N/A
	样品型号\Model	HND 753962	样品参数\Rated info.	3.7V/2300mAh/8.51Wh
	样品尺寸\Size(mm)	T(7.62mm)*W(39.43mm)*L(61.89mm)	样品质量\Weight	43.5g
	样品形状\Shape	棱柱形\Prismatic	样品颜色\Colour	银白色\Silver
委托信息 Client info.	委托方名称 Name of client	佛山市焕能达电池有限公司\FOSHAN HND Battery Co. , Ltd.		
	委托方地址 Add. of client	佛山市南海区大沥镇盐步联安广佛新干线联桂西路 3 号广佛伟创汇第三层第 16 号铺\Shop 16, 3RD floor, Guangfu Weichuanghui, No. 3, Liangui West Road, Yanbu Lian'an Guangfu		
	电池制造商名称 Name of battery mfrs.	佛山市焕能达电池有限公司\FOSHAN HND Battery Co. , Ltd.		
	电池制造商地址 Add. of battery mfrs.	佛山市南海区大沥镇盐步联安广佛新干线联桂西路 3 号广佛伟创汇第三层第 16 号铺\Shop 16, 3RD floor, Guangfu Weichuanghui, No. 3, Liangui West Road, Yanbu Lian'an Guangfu		
	电池制造商联系电话 Phone of battery mfrs.	13824506106		
	电池制造商联系邮箱 Email of battery mfrs.	1750178849@qq.com		
	电池制造商网址 Website of mfrs.	-		

测试信息 Test info.			
	测试章节\Clause	测试项目\Test item	测试结果\Test result
	38.3.4.1	高度模拟(Altitude simulation)	通过 Pass (P)
	38.3.4.2	温度试验(Thermal test)	通过 Pass (P)
	38.3.4.3	振动试验(Vibration)	通过 Pass (P)
	38.3.4.4	冲击试验(Shock)	通过 Pass (P)
	38.3.4.5	外部短路试验(External short circuit)	通过 Pass (P)
	38.3.4.6	挤压/撞击试验(Crush/Impact)	通过 Pass (P)
	38.3.4.7	过度充电试验(Overcharge)	通过 Pass (P)
	38.3.4.8	强制放电试验(Forced discharge)	通过 Pass (P)
	关于集成电池组试验要求的参考信息； Reference to assembled battery testing requirements；		---不适用 ---N/A
	关于危险货物运输的建议书/试验和标准手册/第六修订版/修正 1. the Sixth Revised Edition Amendment 1 of the Recommendations on the Transport of Dangerous Goods, Manual of Test and Criteria.		

实验室测试 Test laboratory		
	实验室名称 Name of laboratory	深圳天溯计量检测股份有限公司 Shenzhen Tiansu Calibration and Testing Co.,Ltd.
	实验室地址 Add. of laboratory	深圳市龙岗区宝龙街道锦龙大道 2 号 1 栋、4 栋 B/1,4, NO.2 Jinlong Road, Longgang District, Shenzhen, China
	联系电话\Telephone	0755-89457984
	联系邮箱\Email	tsjc@tiansu.org
	公司网址\website	www.tiansu.org

核准 Approved

以上信息真实有效。
The above information is true and valid.

项目工程师\Project Engineer

2021 年 1 月 11 日
签发日期\Issue Date