

**Test Report** 

號碼(No.): ETR23305283 日期(Date): 28-Mar-2023 頁數(Page): 1 of 9

能元科技股份有限公司 (E-ONE MOLI ENERGY CORP.) 台南市善化區台南科學園區大利二路10號 (SOUTHERN TAIWAN SCIENCE PARK, NO. 10, DALI 2ND RD., SHANHUA DIST., TAINAN 74144, TAIWAN)

以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by the applicant as):

送樣廠商(Sample Submitted By)

能元科技股份有限公司 (E-ONE MOLI ENERGY CORP.)

樣品名稱(Sample Name)

RECHARGEABLE LITHIUM-ION BATTERY CELL

\_\_\_\_\_\_

樣品型號(Style/Item No.)

INR-21700P42A

收件日(Sample Receiving Date)

22-Mar-2023

測試期間(Testing Period)

22-Mar-2023 to 28-Mar-2023

測試需求(Test Requested)

(1) 依據客戶指定‧測試鎘、鉛、汞、六價鉻、多溴聯苯 & 多溴聯苯醚, DBP, BBP, DEHP, DIBP。 (As specified by client, to test Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP contents in the submitted sample(s).)

(2) 依據客戶指定,測試鹵素-氟、氯、溴、碘。 (As specified by client, to test Halogen-Fluorine, Chlorine, Bromine, Iodine in the submitted sample.)

測試結果(Test Results)

請參閱下一頁 (Please refer to following pages.)

Troy Chang / Department Malager Signed for and on behalf of Alwah SGS TAIWAN LTD. Chemical Laboratory - Taipei



PIN CODE: 55D55BF0



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#### 測試部位敘述 (Test Part Description)

No.1 : 整體混測 (MIXED ALL PARTS)

#### 測試結果 (Test Results)

測試項目	測試方法	單位	MDL	結果
(Test Items)	(Method)	(Unit)		(Result) No.1
鎘 (Cd) (Cadmium (Cd))	參考IEC 62321-5: 2013·以感應耦合電漿發 射光譜儀分析。(With reference to IEC	mg/kg	2	n.d.
鉛 (Pb) (Lead (Pb))	62321-5: 2013, analysis was performed by ICP-OES.)	mg/kg	2	n.d.
汞 (Hg) (Mercury (Hg))	參考IEC 62321-4: 2013+ AMD1: 2017‧以感應 耦合電漿發射光譜儀分析。(With reference to IEC 62321-4: 2013+ AMD1: 2017, analysis was performed by ICP-OES.)	mg/kg	2	n.d.
六價鉻 Cr(VI) (Hexavalent Chromium Cr(VI))	參考IEC 62321-7-2: 2017 · 以紫外光-可見光分光光度計分析。(With reference to IEC 62321-7-2: 2017, analysis was performed by UV-VIS.)	mg/kg	8	n.d.
一溴聯苯 (Monobromobiphenyl)		mg/kg	5	n.d.
二溴聯苯 (Dibromobiphenyl)		mg/kg	5	n.d.
三溴聯苯 (Tribromobiphenyl)		mg/kg	5	n.d.
四溴聯苯 (Tetrabromobiphenyl)		mg/kg	5	n.d.
五溴聯苯 (Pentabromobiphenyl)	參考IEC 62321-6: 2015,以氣相層析儀/質譜	mg/kg	5	n.d.
六溴聯苯 (Hexabromobiphenyl)	儀分析。(With reference to IEC 62321-6:	mg/kg	5	n.d.
七溴聯苯 (Heptabromobiphenyl)	2015, analysis was performed by GC/MS.)	mg/kg	5	n.d.
八溴聯苯 (Octabromobiphenyl)		mg/kg	5	n.d.
九溴聯苯 (Nonabromobiphenyl)		mg/kg	5	n.d.
十溴聯苯 (Decabromobiphenyl)	]	mg/kg	5	n.d.
多溴聯苯總和 (Sum of PBBs)	]	mg/kg	-	n.d.



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測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)
(rest items)	(iviethod)	(Offit)		No.1
一溴聯苯醚 (Monobromodiphenyl ether)	参考IEC 62321-6: 2015·以氣相層析儀/質譜	mg/kg	5	n.d.
二溴聯苯醚 (Dibromodiphenyl ether)		mg/kg	5	n.d.
三溴聯苯醚 (Tribromodiphenyl ether)		mg/kg	5	n.d.
四溴聯苯醚 (Tetrabromodiphenyl ether)		mg/kg	5	n.d.
五溴聯苯醚 (Pentabromodiphenyl ether)		mg/kg	5	n.d.
六溴聯苯醚 (Hexabromodiphenyl ether)	儀分析。(With reference to IEC 62321-6:	mg/kg	5	n.d.
七溴聯苯醚 (Heptabromodiphenyl ether)	2015, analysis was performed by GC/MS.)	mg/kg	5	n.d.
八溴聯苯醚 (Octabromodiphenyl ether)		mg/kg	5	n.d.
九溴聯苯醚 (Nonabromodiphenyl ether)		mg/kg	5	n.d.
十溴聯苯醚 (Decabromodiphenyl ether)		mg/kg	5	n.d.
多溴聯苯醚總和 (Sum of PBDEs)		mg/kg	-	n.d.
鄰苯二甲酸丁苯甲酯 (BBP) (Butyl benzyl		mg/kg	50	n.d.
phthalate (BBP))				
鄰苯二甲酸二丁酯 (DBP) (Dibutyl	<u> </u>	mg/kg	50	n.d.
phthalate (DBP))	參考IEC 62321-8: 2017,以氣相層析儀/質譜 儀分析。(With reference to IEC 62321-8:			
鄰苯二甲酸二異丁酯 (DIBP) (Diisobutyl	職力が  。(With reference to IEC 62321-8.   2017, analysis was performed by GC/MS.)	mg/kg	50	n.d.
phthalate (DIBP))	2017, analysis was performed by GC/1013.)			
鄰苯二甲酸二(2-乙基己基)酯 (DEHP) (Di-		mg/kg	50	n.d.
(2-ethylhexyl) phthalate (DEHP))				
氟 (F) (Fluorine (F)) (CAS No.: 14762-94-		mg/kg	50	8840
8)				
氯 (Cl) (Chlorine (Cl)) (CAS No.: 22537-	   参考BS EN 14582: 2016,以離子層析儀分	mg/kg	50	n.d.
15-1)	析。(With reference to BS EN 14582: 2016,			
溴 (Br) (Bromine (Br)) (CAS No.: 10097-	analysis was performed by IC.)	mg/kg	50	n.d.
32-2)	,,,			
碘 (I) (Iodine (I)) (CAS No.: 14362-44-8)		mg/kg	50	n.d.



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#### 備註(Note):

- 1. mg/kg = ppm; 0.1wt% = 0.1% = 1000ppm
- 2. MDL = Method Detection Limit (方法偵測極限值)
- 3. n.d. = Not Detected (未檢出); 小於MDL / Less than MDL
- 4. "-" = Not Regulated (無規格值)
- 5. 樣品的測試是基於申請人要求混合測試,報告中的混合測試結果不代表其中個別單一材質的含量。 The sample(s) was/were analyzed on behalf of the applicant as mixing sample in one testing. The above result(s) was/were only given as the informality value.



## **Test Report**

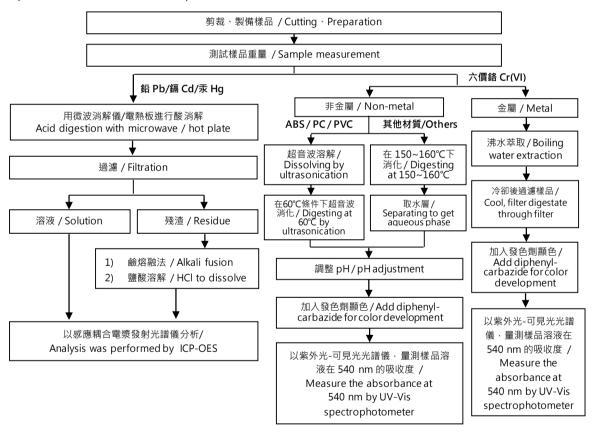
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#### 重金屬流程圖 / Analytical flow chart of heavy metal

根據以下的流程圖之條件,樣品已完全溶解。(六價鉻測試方法除外)

These samples were dissolved totally by pre-conditioning method according to below flow chart. ( $Cr^{6+}$  test method excluded)



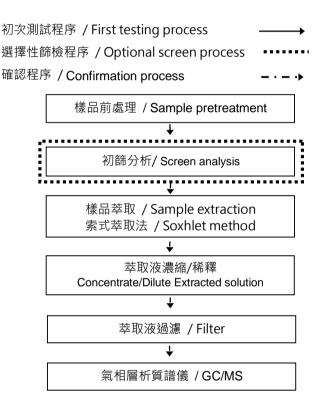


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#### 多溴聯苯/多溴聯苯醚分析流程圖 / Analytical flow chart - PBBs/PBDEs





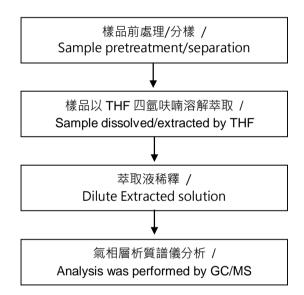
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#### 可塑劑分析流程圖 / Analytical flow chart - Phthalate

#### 【測試方法/Test method: IEC 62321-8】



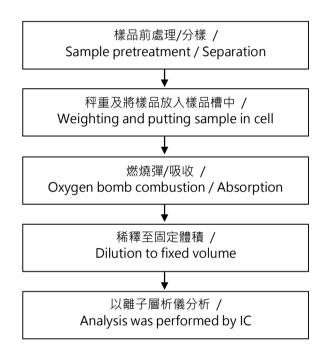


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#### 鹵素分析流程圖 / Analytical flow chart - Halogen





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\* 照片中如有箭頭標示,則表示為實際檢測之樣品/部位. \* (The tested sample / part is marked by an arrow if it's shown on the photo.)

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\*\* 報告結尾 (End of Report) \*\*