



检测报告

Test Report

报告编号 A2220311041101E
Report No. A2220311041101E

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报告抬头公司名称 深圳矽递科技股份有限公司
Company Name SEEED TECHNOLOGY CO., LTD
shown on Report
地 址 深圳市南山区西丽街道中山园路 1001 号 TCL 国际 E 城 G3 栋 9 楼
Address 9F,BUILDING G3,TCL INTERNATIONAL E CITY,ZHONGSHANYUAN
ROAD,NANSHAN,SHENZHEN,CHINA.

以下测试之样品及样品信息由申请者提供并确认

The following sample(s) and sample information was/were submitted and identified by/on the behalf of the applicant

样品名称 Sample Name(s) Seeed Studio XIAO ESP32C3
样品型号 Part No. XIAO ESP32C3
样品颜色 Color 黑色 Black
材料名称 Material PCB 板
样品接收日期 2022.07.20
Sample Received Date Jul. 20, 2022
样品检测日期 2022.07.20-2022.07.25
Testing Period Jul. 20, 2022 to Jul. 25, 2022
检测要求 根据客户要求, 对所提交样品中的铅(Pb), 镉(Cd), 汞(Hg), 六价铬(Cr(VI)), 多溴联苯(PBBs), 多溴二苯醚(PBDEs), 邻苯二甲酸酯(DBP, BBP, DEHP, DIBP)进行测试。

Test Requested As specified by client, to test Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent Chromium (Cr(VI)), Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs), Phthalates (DBP, BBP, DEHP, DIBP) in the submitted sample(s).

检测依据/检测结果 请参见下页。

Test Method/Test Result(s) Please refer to the following page(s).

主 检
Tested by

刘 宇

审 核
Reviewed by

李 丹 娜

批 准
Approved by

郑 晴 涛

日 期
Date

2022.07.25

郑晴涛

技术经理 Technical Manager

No. R530011182

华测检测认证集团股份有限公司

广东省深圳市宝安区新安街道兴东社区华测检测大楼

Centre Testing International Group Co., Ltd.

CTI Building, Xing Dong Community, Xin'an Sub-district, Bao'an District, Shenzhen City, Guangdong Province, P.R. China

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检测依据 Test Method

测试项目 Tested Item(s)	测试方法 Test Method	测试仪器 Measured Equipment(s)
铅 Lead (Pb)	IEC 62321-5:2013	ICP-OES
镉 Cadmium (Cd)	IEC 62321-5:2013	ICP-OES
汞 Mercury (Hg)	IEC 62321-4:2013+AMD1:2017 CSV	ICP-OES
六价铬 Hexavalent Chromium (Cr(VI))	IEC 62321-7-1:2015	UV-Vis
	IEC 62321-7-2:2017 和/或 IEC 62321-5:2013 测试总 铬含量 IEC 62321-7-2:2017 and/or determination of Total Chromium by IEC 62321-5:2013	UV-Vis/ICP-OES
多溴联苯 Polybrominated Biphenyls (PBBs)	IEC 62321-6:2015	GC-MS
多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321-6:2015	GC-MS
邻苯二甲酸酯 Phthalates (DBP, BBP, DEHP, DIBP)	IEC 62321-8:2017	GC-MS

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检测结果 Test Result(s)

测试项目 Tested Item(s)	结果 Result		方法检出限 MDL
	001	002	
铅 Lead (Pb)	N.D.	N.D.	2 mg/kg
镉 Cadmium (Cd)	N.D.	N.D.	2 mg/kg
汞 Mercury (Hg)	N.D.	N.D.	2 mg/kg
六价铬 Hexavalent Chromium (Cr(VI))	N.D.	--	8 mg/kg
	--	N.D.▼	0.10 µg/cm ² (LOQ)

测试项目 Tested Item(s)	结果 Result		方法检出限 MDL
	001		
多溴联苯 Polybrominated Biphenyls (PBBs)			
一溴联苯 Monobromobiphenyl	N.D.		5 mg/kg
二溴联苯 Dibromobiphenyl	N.D.		5 mg/kg
三溴联苯 Tribromobiphenyl	N.D.		5 mg/kg
四溴联苯 Tetrabromobiphenyl	N.D.		5 mg/kg
五溴联苯 Pentabromobiphenyl	N.D.		5 mg/kg
六溴联苯 Hexabromobiphenyl	N.D.		5 mg/kg
七溴联苯 Heptabromobiphenyl	N.D.		5 mg/kg
八溴联苯 Octabromobiphenyl	N.D.		5 mg/kg
九溴联苯 Nonabromobiphenyl	N.D.		5 mg/kg
十溴联苯 Decabromobiphenyl	N.D.		5 mg/kg

测试项目 Tested Item(s)	结果 Result		方法检出限 MDL
	001		
多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)			
一溴二苯醚 Monobromodiphenyl ether	N.D.		5 mg/kg
二溴二苯醚 Dibromodiphenyl ether	N.D.		5 mg/kg
三溴二苯醚 Tribromodiphenyl ether	N.D.		5 mg/kg
四溴二苯醚 Tetrabromodiphenyl ether	N.D.		5 mg/kg
五溴二苯醚 Pentabromodiphenyl ether	N.D.		5 mg/kg
六溴二苯醚 Hexabromodiphenyl ether	N.D.		5 mg/kg
七溴二苯醚 Heptabromodiphenyl ether	N.D.		5 mg/kg
八溴二苯醚 Octabromodiphenyl ether	N.D.		5 mg/kg
九溴二苯醚 Nonabromodiphenyl ether	N.D.		5 mg/kg
十溴二苯醚 Decabromodiphenyl ether	N.D.		5 mg/kg

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测试项目 Tested Item(s)	结果 Result	方法检出限 MDL
	001	
邻苯二甲酸酯 Phthalates (DBP, BBP, DEHP, DIBP)		
邻苯二甲酸二丁酯 Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	50 mg/kg
邻苯二甲酸丁基苄基酯 Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	50 mg/kg
邻苯二甲酸二(2-乙基)己酯 Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	50 mg/kg
邻苯二甲酸二异丁酯 Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	50 mg/kg

样品/部位描述 Sample/Part Description

001 所有部件混测 (非金属) Mixed test, all parts(Nonmetal)
002 所有部件混测 (金属) Mixed test, all parts(Metal)

备注:

- 对于检测铅, 镉, 汞之样品已消解完全。
- 根据客户要求, 对样品进行混合测试, 测试结果不代表混合测试样品中任何一种单一材质的含量。
- N.D. = 未检出 (小于方法检出限或定量限)
- mg/kg = ppm = 百万分之一
- LOQ = 定量限, 六价铬的定量限为 $0.10 \mu\text{g}/\text{cm}^2$
- ▼六价铬浓度小于 $0.10 \mu\text{g}/\text{cm}^2$, 样品未检出六价铬。

Remark:

- The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury.
- As specified by client, the test was conducted by mixing several samples together. The result(s) shown on this report may be different from the content of any homogeneous material.
- MDL = Method Detection Limit
- N.D. = Not Detected (<MDL or LOQ)
- mg/kg = ppm = parts per million
- 1000 mg/kg = 0.1%
- LOQ = Limit of Quantification, The LOQ of Hexavalent chromium is $0.10 \mu\text{g}/\text{cm}^2$

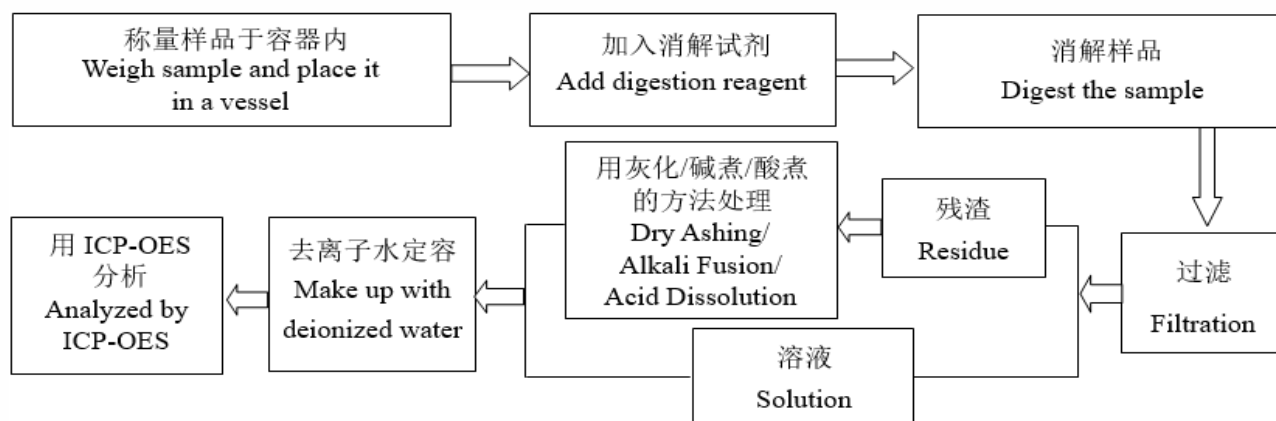
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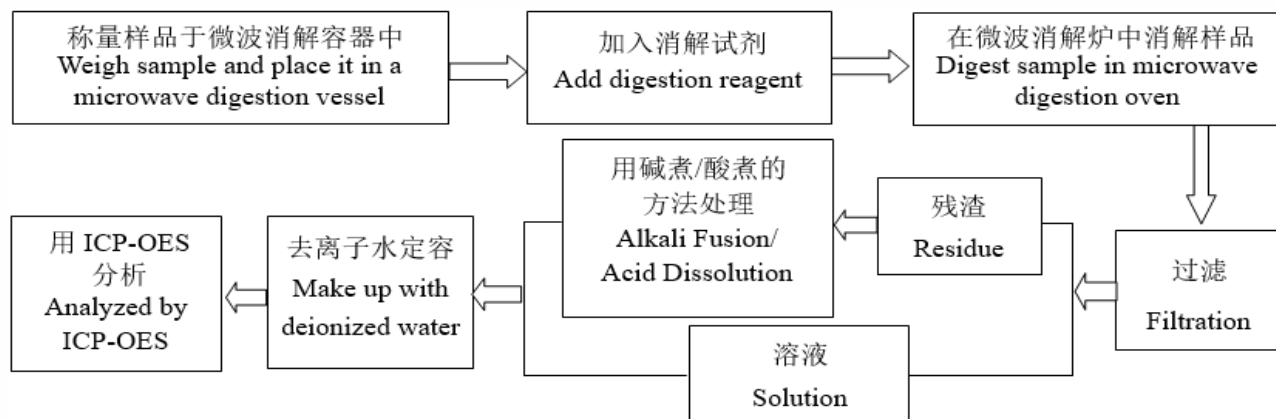
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检测流程 Test Process

1. 铅 Lead (Pb), 镉 Cadmium (Cd), 铬 Chromium(Cr)

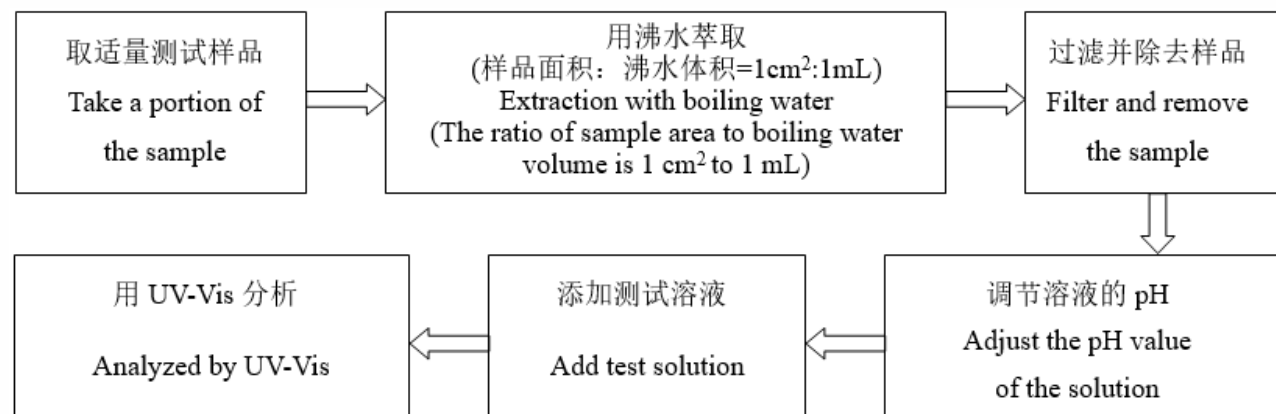


2. 汞 Mercury (Hg)



3. 六价铬 Hexavalent Chromium (Cr(VI))

(1) IEC 62321-7-1:2015

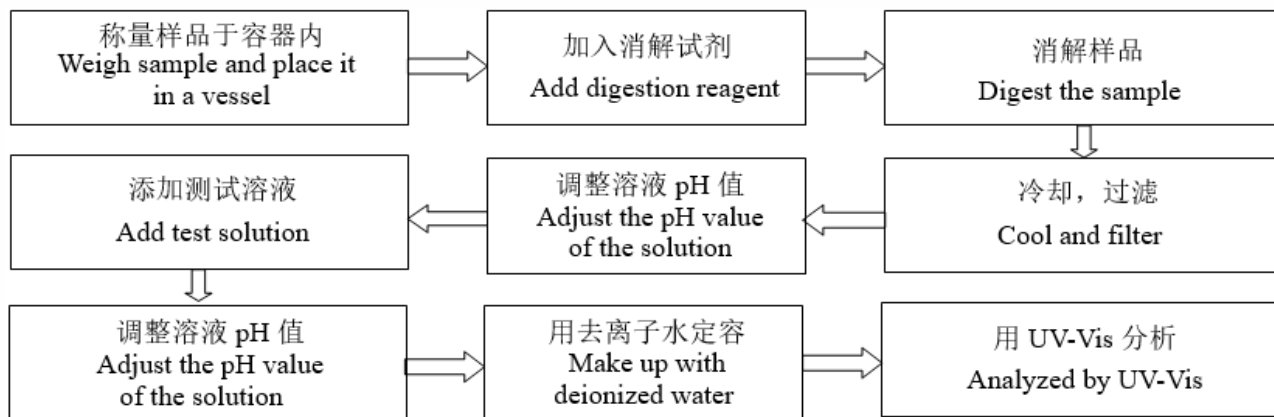


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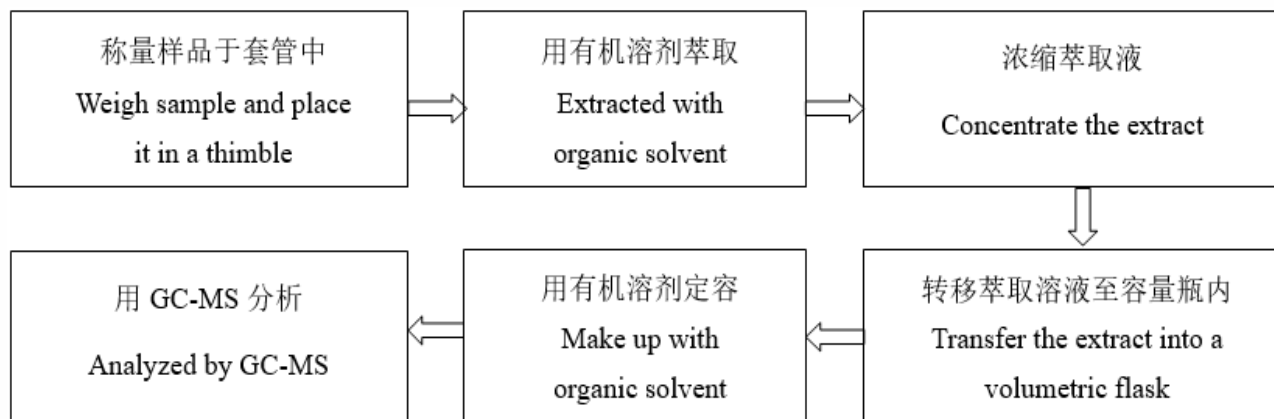
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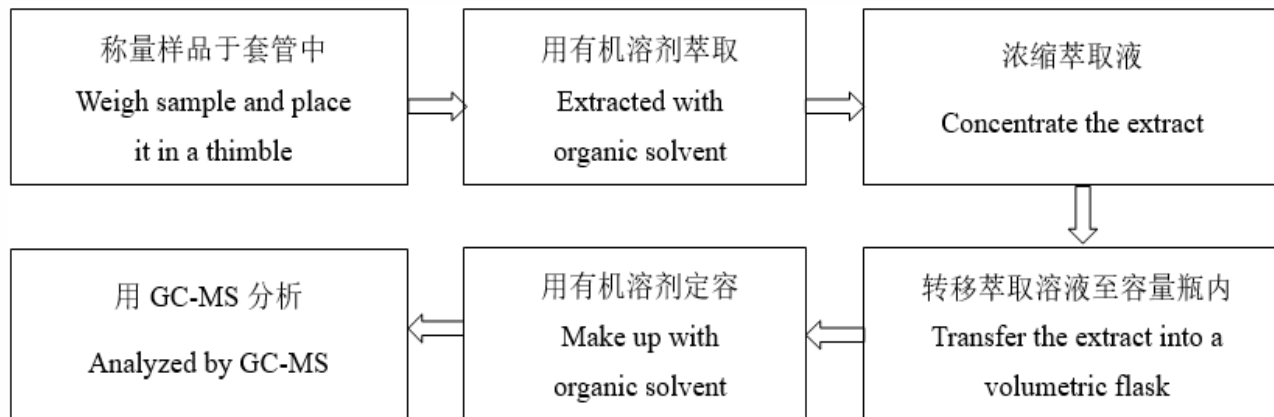
(2) IEC 62321-7-2:2017



4. 多溴联苯 Polybrominated Biphenyls (PBBs), 多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)



5. 邻苯二甲酸酯 Phthalates (DBP, BBP, DEHP, DIBP)



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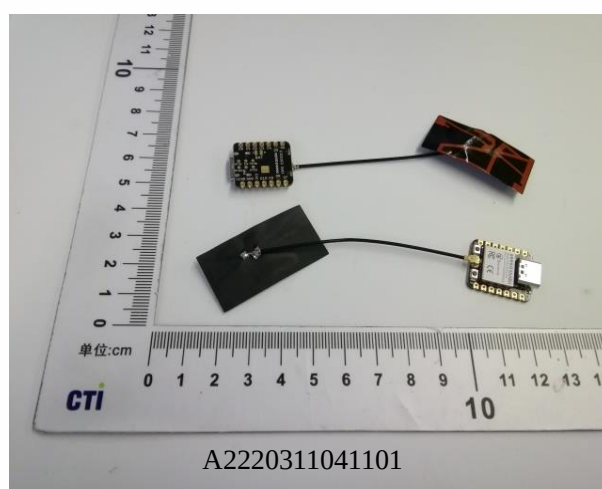
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样品图片

Photo(s) of the sample(s)

001-002



声明 Statement:

1. 检测报告无批准人签字、“专用章”及报告骑缝章无效;

This report is considered invalid without approved signature, special seal and the seal on the perforation;

2. 报告抬头公司名称及地址、样品及样品信息由申请者提供, 申请者应对其真实性负责, CTI 未核实其真实性;

The Company Name shown on Report and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified;

3. 本报告检测结果仅对受测样品负责;

The result(s) shown in this report refer(s) only to the sample(s) tested;

4. 未经 CTI 书面同意, 不得部分复制本报告;

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*** 报告结束 ***

*** End of Report ***