



检测报告

Test Report

报告编号 A2220058173101009ER1
Report No. A2220058173101009ER1

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报告抬头公司名称 余姚市爱迪升电镀科技有限公司
Company Name YUYAO ADSCENDENT PLATING SCIENCE & TECHNOLOGY CO.,LTD.
shown on Report
地 址 余姚市临山镇沧海路 7 号
Address NO.7 CANGHAI ROAD, LINSHAN TOWN, YUYAO CITY

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	铜镀层
Sample Name	Copper plating
样品接收日期	2022.02.22
Sample Received Date	Feb. 22, 2022
样品检测日期	2022.02.22-2022.03.01
Testing Period	Feb. 22, 2022 to Mar. 1, 2022

检测要求/检测依据/检测结果 请参见下页。
Test Requested /Test Method/Test Result(s) Please refer to the following page(s).

主 检
Tested by

钱佳丽

审 核
Reviewed by

陈汀

Approved by

张琳

日 期
Date

2022.03.07

张琳

技术经理 Technical Manager

No. R219927443

宁波高新区菁华路 76 号厂区东首第一、二层

宁波市华测检测技术有限公司

Centre Testing International (Ningbo) Co.,Ltd.

1-2F, Eastern Factory, No.76, Jinghua Road, High-Tech Zone, Ningbo, Zhejiang, China

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结论 Conclusion

测试样品 Tested Sample	依据标准/指令 According to standard/directive	结果 Result
提交样品 Submitted Sample	欧盟 RoHS 指令 2011/65/EU 及其修订指令 (EU) 2015/863 RoHS Directive 2011/65/EU with amendment (EU) 2015/863	符合 PASS

符合表示检测结果满足欧盟RoHS指令2011/65/EU及其修订指令(EU) 2015/863要求的限值。

PASS means that the results shown on the report comply with the limits set by RoHS Directive 2011/65/EU with amendment (EU) 2015/863.

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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
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
铍 Beryllium(Be) *	参考 US EPA 3050B:1996 & US EPA 6010D:2018 Refer to US EPA 3050B:1996 & US EPA 6010D:2018	ICP-OES
锑 Antimony(Sb) *	参考 US EPA 3050B:1996 & US EPA 6010D:2018 Refer to US EPA 3050B:1996 & US EPA 6010D:2018	ICP-OES
氟 Fluorine (F)	参考 EN 14582:2016 Refer to EN 14582:2016	IC
氯 Chlorine (Cl)	参考 EN 14582:2016 Refer to EN 14582:2016	IC
溴 Bromine (Br)	参考 EN 14582:2016 Refer to EN 14582:2016	IC
碘 Iodine (I)	参考 EN 14582:2016 Refer to EN 14582:2016	IC
全氟辛烷磺酸(PFOS)Perfluorooctane Sulfonates(PFOS) *	参考 US EPA 3550C:2007 & US EPA 8321B:2007 Refer to US EPA 3550C:2007 & US EPA 8321B:2007	LC-MS-MS
全氟辛酸(PFOA)Perfluorooctanoic Acid(PFOA) *	参考 US EPA 3550C:2007 & US EPA 8321B:2007 Refer to US EPA 3550C:2007 & US EPA 8321B:2007	LC-MS-MS
#1 三氧化二锑 Antimony trioxide (Sb ₂ O ₃)*	参考 US EPA 3052:1996 & US EPA 6010D:2018 Refer to US EPA 3052:1996 & US EPA 6010D:2018	ICP-OES

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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	限值 Limit
铅 Lead (Pb)	N.D.	2 mg/kg	1000 mg/kg
镉 Cadmium (Cd)	N.D.	2 mg/kg	100 mg/kg
汞 Mercury (Hg)	N.D.	2 mg/kg	1000 mg/kg
六价铬 Hexavalent Chromium (Cr(VI))	N.D.▼	0.10 µg/cm ² (LOQ)	1000 mg/kg

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL	限值 Limit
多溴联苯 Polybrominated Biphenyls (PBBs) *			
一溴联苯 Monobromobiphenyl	N.D.	5 mg/kg	1000 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	

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测试项目 Tested Item(s)	结果 Result	方法检出限 MDL	限值 Limit
多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs) *			
一溴二苯醚 Monobromodiphenyl ether	N.D.	5 mg/kg	1000 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	

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL	限值 Limit
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	1000 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	1000 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	1000 mg/kg
邻苯二甲酸二异丁酯 Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	50 mg/kg	1000 mg/kg

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测试项目 Tested Item(s)	结果 Result	方法检出限 MDL
铍 Beryllium (Be) *	N.D.	10 mg/kg

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL
锑 Antimony (Sb) *	N.D.	5 mg/kg

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL	IEC 61249-2-21:2003 标准限值 IEC 61249-2-21:2003 Standard Limit
氟 Fluorine (F)	N.D.	10 mg/kg	—
氯 Chlorine (Cl)	335 mg/kg	10 mg/kg	900 mg/kg
溴 Bromine (Br)	N.D.	10 mg/kg	900 mg/kg
碘 Iodine (I)	N.D.	10 mg/kg	—
总计(氯+溴) Total (Cl + Br)	335 mg/kg	/	1500 mg/kg

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL
全氟辛酸磺酸 Perfluorooctane Sulfonates (PFOS) *	N.D.	5 mg/kg

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL
全氟辛酸 Perfluorooctanoic Acid (PFOA) *	N.D.	5 mg/kg

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL
#1 三氧化二锑 Antimony trioxide (Sb ₂ O ₃)*	N.D.	5 mg/kg

样品/部位描述 Sample/Part Description

铜色金属 Cupreous metal

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备注: 对于检测铅, 镉, 汞, 铍, 锑之样品已消解完全。

-N.D. = 未检出 (小于方法检出限或定量限)

-mg/kg = ppm = 百万分之一

-1000 mg/kg = 0.1%

-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。

-#1 = 该项目的检测结果由其特征元素的测试结果换算而来。

Remark: The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury, Beryllium, Antimony..

-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 $\mu\text{g}/\text{cm}^2$

-▼The sample is negative for Cr(VI) – The Cr(VI) concentration is below 0.10 $\mu\text{g}/\text{cm}^2$. The coating is considered a non-Cr(VI) based coating.

-#1 = The test result of the item is converted from the test result of certain element.

注释: *表示该项目不在 CNAS 认可范围内。

本报告将报告编号为 A2220058173101009E, A22200581731010010E 的检测报告合并成一份。

本报告替换原报告 (报告编号: A2220058173101009E, A22200581731010010E), 自本报告签发之日起, 原报告 A2220058173101009E, A22200581731010010E 作废。

本报告中的数据结果供科研、教学、企业内部质量控制、企业产品研发等目的用。

Note: *indicates the item(s) is (are) not in CNAS accreditation scope.

This testing report integrated these testing reports (No. A2220058173101009E, A22200581731010010E) into one. This testing report displaces the original ones which were invalid since the date of this testing report released.

The testing data and result(s) in this report is(are) just for scientific research, education, internal quality control and product development etc.

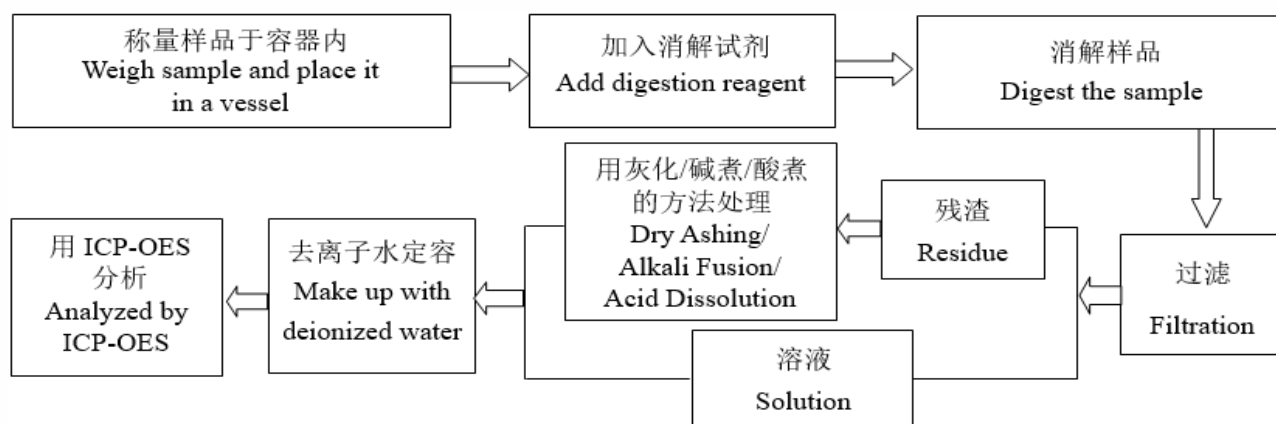
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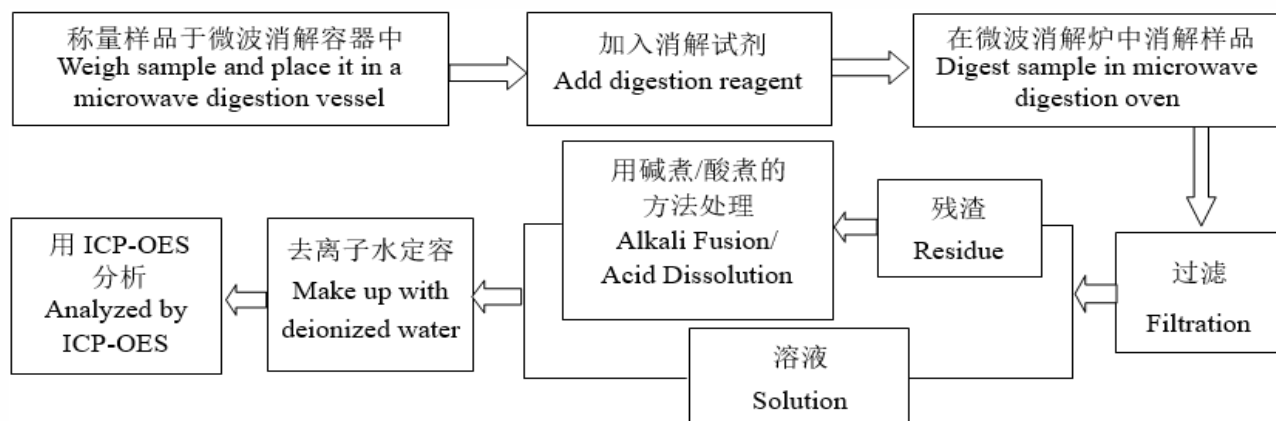
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检测流程 Test Process

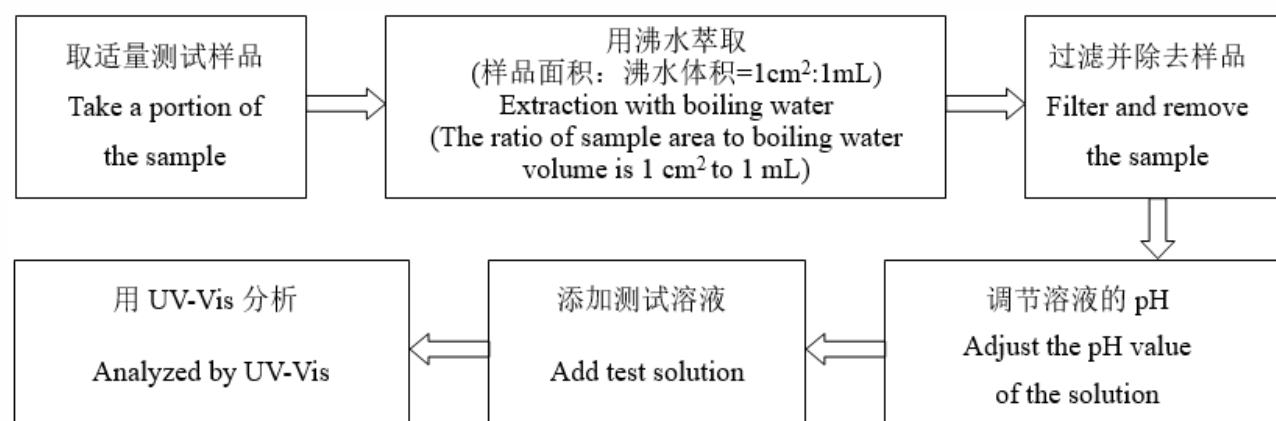
1. 铅 Lead (Pb), 镉 Cadmium (Cd)



2. 汞 Mercury (Hg)



3. 六价铬 Hexavalent Chromium (Cr(VI))

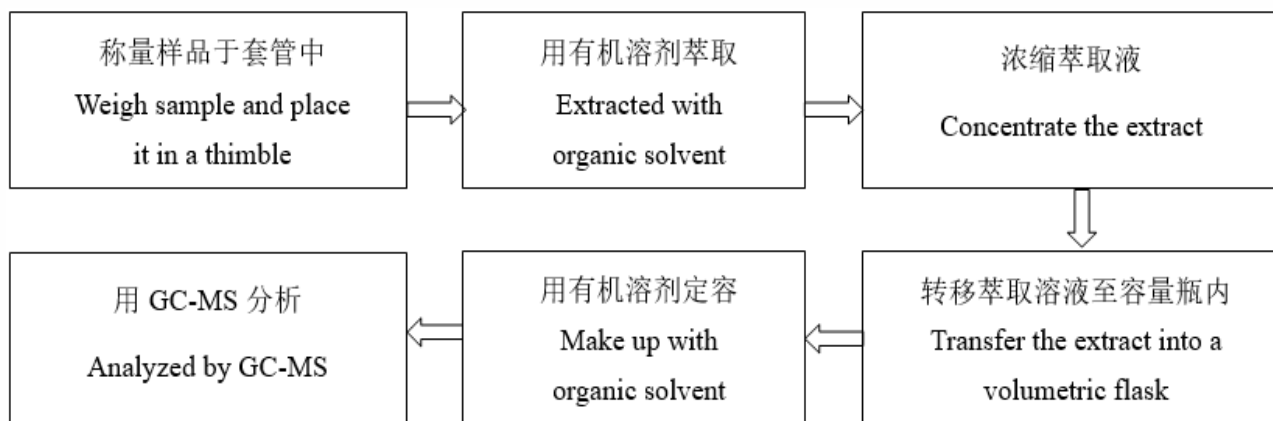


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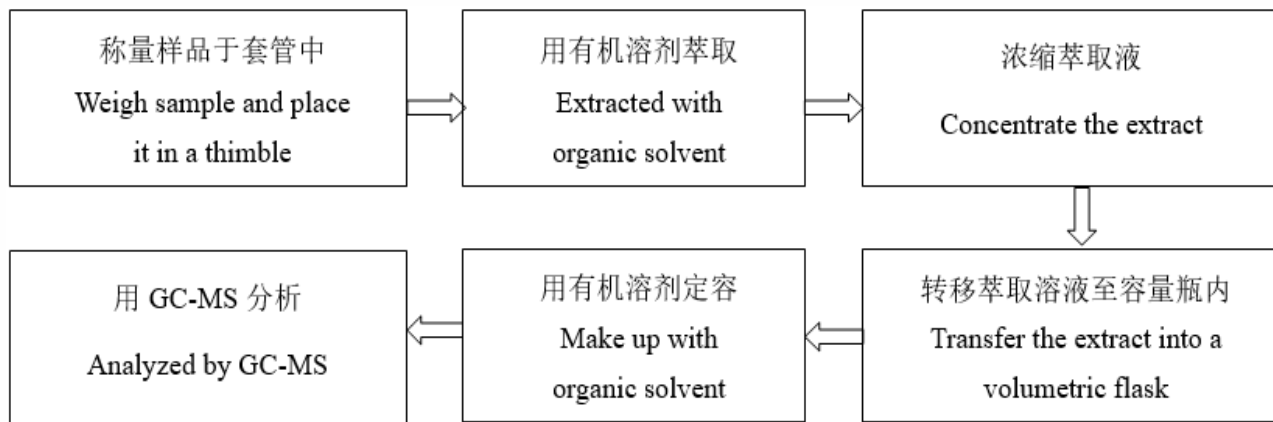
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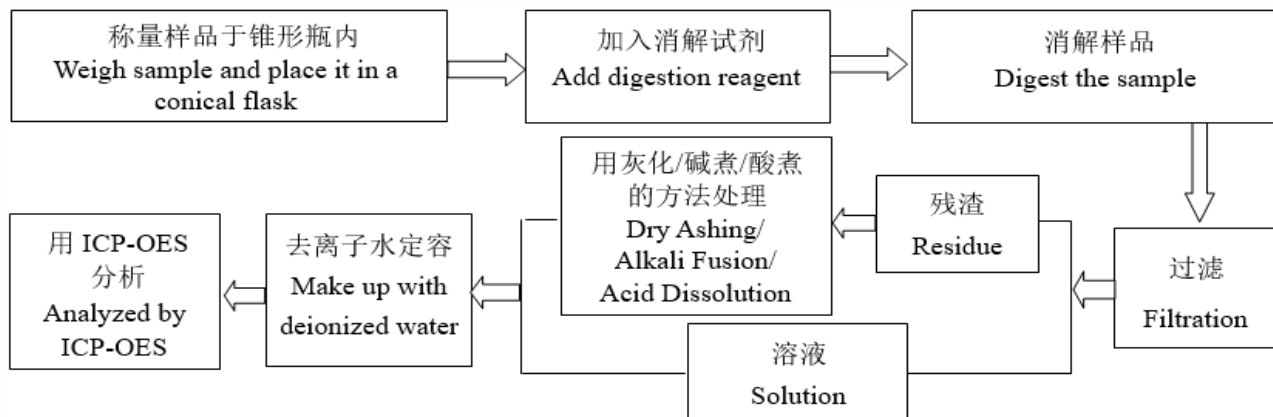
4. 多溴联苯 Polybrominated Biphenyls (PBBs), 多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)



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



6. 铍 Beryllium(Be), 锑 Antimony(Sb)

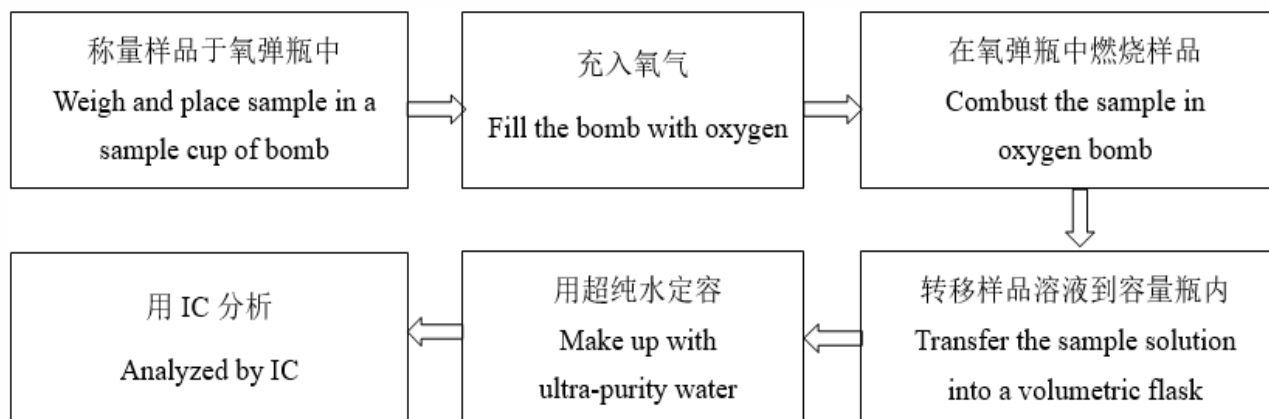


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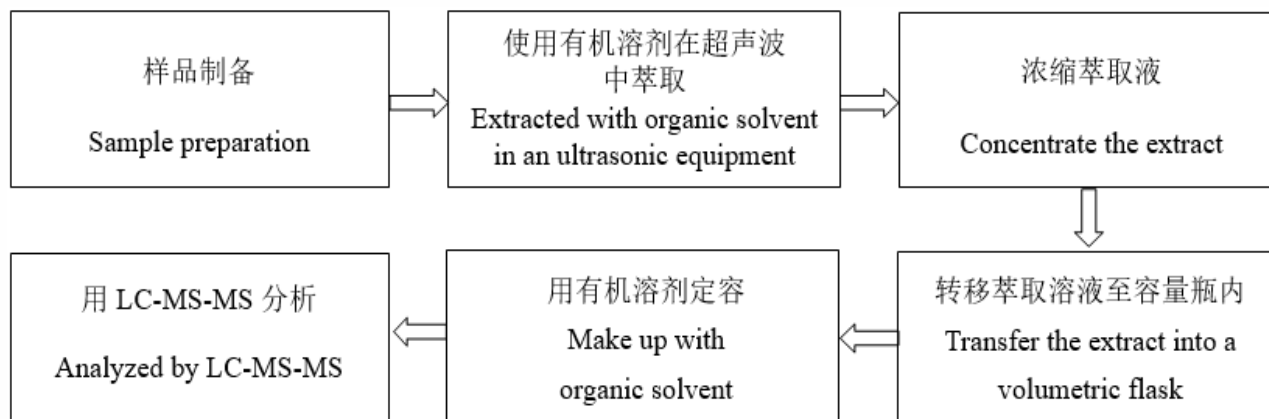
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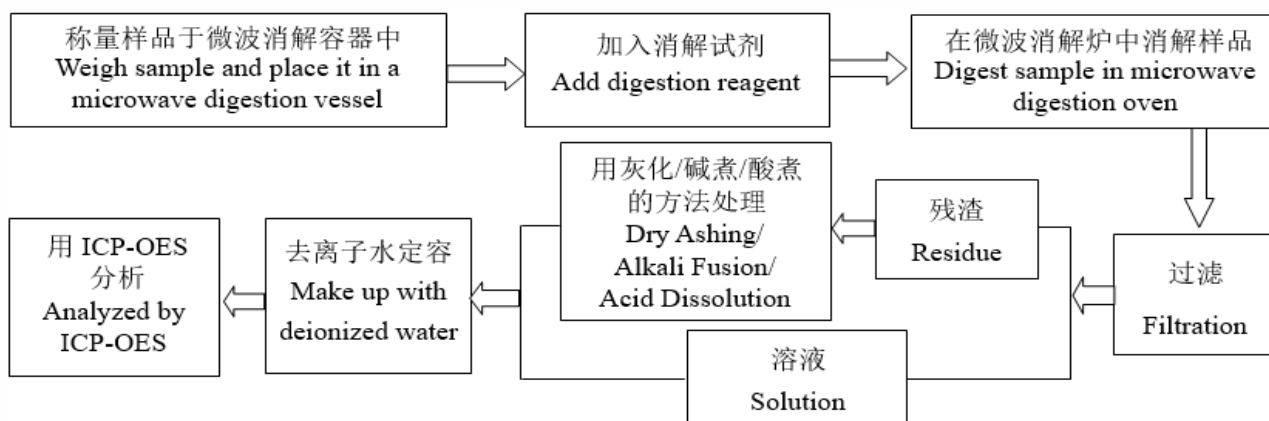
7. 氟 Fluorine (F), 氯 Chlorine (Cl), 溴 Bromine (Br), 碘 Iodine (I)



8. 全氟辛烷磺酸 (PFOS)Perfluorooctane Sulfonates(PFOS), 全氟辛酸 (PFOA)Perfluorooctanoic Acid(PFOA)



9. 三氧化二锑 Antimony trioxide (Sb₂O₃)



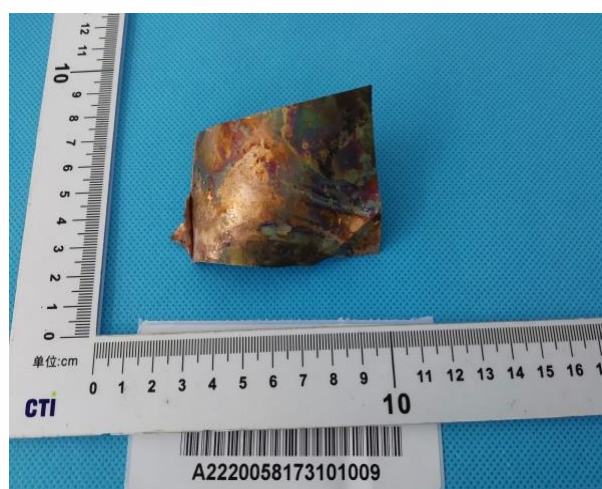
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样品图片

Photo(s) of the sample(s)



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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In case of any discrepancy between the English version and Chinese version of the testing reports (if generated), the Chinese version shall prevail.

*** 报告结束 ***

*** End of Report ***