

测试报告

No. TAOEC1904463406

日期: 2019年10月16日

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济南汇丰中天电子科技有限公司
济南市高新区天辰大街978号

该报告的结果取自结果表下备注的其它报告。

以下测试之样品是由申请者所提供及确认: 玻封二极管

SGS工作编号: QP19-000801 - QD
型号: LL34
客户参考信息: 其他型号: DO-35, DO-34, DO-41G, LL34(MINI-MELF), LL41(MELF)
样品接收日期: 2019年09月30日
测试周期: 2019年09月30日 - 2019年10月12日
测试要求: 根据客户要求测试
测试方法: 请参见下一页
测试结果: 请参见下一页

通标标准技术服务(青岛)有限公司
授权签名

Wang Bo, Claire王渤
批准签署人



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测试结果:

测试样品描述:

样品编号	SGS样品ID	描述
SN1	TAO19-044634.001	带有银色金属和透明玻璃的橙色固体 (混测)

备注:

- (1) 1 mg/kg = 0.0001%
- (2) MDL = 方法检测限
- (3) ND = 未检出 (< MDL)
- (4) "-" = 未规定

镉、铅、汞、六价铬、多溴联苯(PBBs)、多溴二苯醚(PBDEs)、邻苯二甲酸酯

测试方法: 参考IEC 62321-5:2013, IEC 62321-4:2013+AMD1:2017, IEC 62321-7-2:2017, IEC 62321-6:2015和IEC 62321-8:2017, 采用ICP-OES, UV-Vis和GC-MS进行分析.

测试项目	限值	单位	MDL	001
镉(Cd)	100	mg/kg	2	ND
铅(Pb)	-	mg/kg	2	4674▲
汞(Hg)	1000	mg/kg	2	ND
六价铬 (Cr(VI))	1000	mg/kg	8	ND
多溴联苯之和(PBBs)	1000	mg/kg	-	ND
一溴联苯	-	mg/kg	5	ND
二溴联苯	-	mg/kg	5	ND
三溴联苯	-	mg/kg	5	ND
四溴联苯	-	mg/kg	5	ND
五溴联苯	-	mg/kg	5	ND
六溴联苯	-	mg/kg	5	ND
七溴联苯	-	mg/kg	5	ND
八溴联苯	-	mg/kg	5	ND
九溴联苯	-	mg/kg	5	ND
十溴联苯	-	mg/kg	5	ND
多溴二苯醚之和(PBDEs)	1000	mg/kg	-	ND
一溴二苯醚	-	mg/kg	5	ND
二溴二苯醚	-	mg/kg	5	ND
三溴二苯醚	-	mg/kg	5	ND
四溴二苯醚	-	mg/kg	5	ND
五溴二苯醚	-	mg/kg	5	ND
六溴二苯醚	-	mg/kg	5	ND



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测试项目	限值	单位	MDL	001
七溴二苯醚	-	mg/kg	5	ND
八溴二苯醚	-	mg/kg	5	ND
九溴二苯醚	-	mg/kg	5	ND
十溴二苯醚	-	mg/kg	5	ND
邻苯二甲酸二丁酯 (DBP)	1000	mg/kg	30	ND
邻苯二甲酸丁苄酯(BBP)	1000	mg/kg	30	ND
邻苯二甲酸二(2-乙基己基)酯(DEHP)	1000	mg/kg	30	ND
邻苯二甲酸二异丁酯(DIBP)	1000	mg/kg	30	ND

备注:

- (1)最大允许极限值引用自RoHS指令(EU) 2015/863 。
IEC 62321系列等同于 EN 62321系列
https://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101:::FSP_ORG_ID,FSP_LANG_ID:1258637,25
- (2) 2021年7月22号开始, DEHP, BBP, DBP 和 DIBP的限制适用于医疗器械, 包括体外医疗器械, 监控仪表, 包括工业监测和控制仪器。
- (3) DEHP, BBP, DBP 和 DIBP的限制不适用于玩具产品, 因为No.1907/2006附录XVII第51条已对玩具产品中的DEHP, BBP, DBP 和 DIBP含量进行了限制。
- (4) ▲根据客户提供的声明, 编号001中的铅(Pb)被欧盟RoHS指令2011/65/EU豁免, 相应豁免条文(请以英文原文为准) [ANNEX III 7(c)-I]: 电子电气元件中玻璃或陶瓷材料(电容中陶瓷介质除外)所含的铅, 如压电设备、玻璃或陶瓷基复合元件。
- (5) 样品的测试是基于申请人要求混合测试, 报告中的混合测试结果不代表其中个别单一材质的含量, 该测试数据仅供参考。

卤素

测试方法: 参照EN 14582: 2016方法测定, 采用 IC进行分析.

测试项目	单位	MDL	001
氟(F)	mg/kg	50	ND
氯(Cl)	mg/kg	50	ND
溴(Br)	mg/kg	50	ND
碘(I)	mg/kg	50	ND

备注:

- 这项测试由SGS天津化学实验室操作。
- 样品的测试是基于申请人要求混合测试, 报告中的混合测试结果不代表其中个别单一材质的含量, 该测试数据仅供参考。



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全氟辛烷磺酸及其衍生物(PFOS)和全氟辛酸(PFOA)

测试方法: 参照CEN/TS 15968:2010方法, 采用LC-MS测试.

测试项目	单位	MDL	001
全氟辛烷磺酸及其衍生物(PFOS)^	mg/kg	10	ND
全氟辛酸(PFOA)	mg/kg	10	ND

备注:

(1) ^:全氟辛烷磺酸(PFOS)及其衍生物包含全氟辛烷磺酸(PFOS)、全氟辛基磺酰胺(PFOSA)、2-(N-乙基全氟辛基磺酰胺)乙醇(EtFOSE)、N-甲基全氟辛烷磺酰胺(MeFOSA)、N-乙基全氟辛烷磺酰胺(EtFOSA)和2-(N-甲基全氟辛基磺酰胺)乙醇(MeFOSE)。

(2) 样品的测试是基于申请人要求混合测试, 报告中的混合测试结果不代表其中个别单一材质的含量, 该测试数据仅供参考。

备注:

-本报告的测试结果和照片引用自报告TAOEC1904463402

检测报告仅用于客户科研、教学、内部质量控制、产品研发等目的, 仅供内部参考。

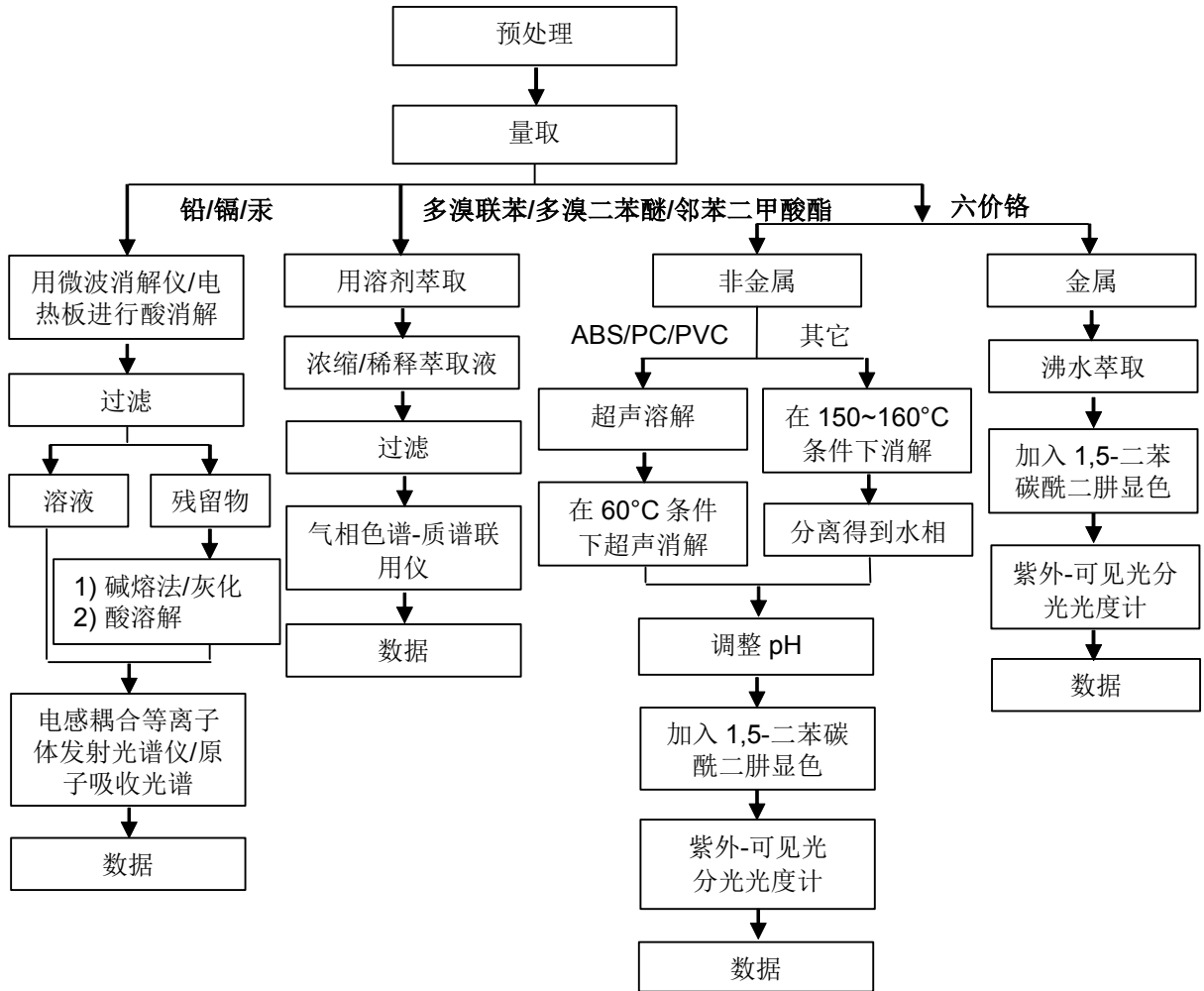


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附件

Pb/Cd/Hg/Cr⁶⁺/PBBs/PBDEs/Phthalates 测试流程图

1) 样品按照下述流程被完全消解 (六价铬和多溴联苯/多溴二苯醚/邻苯二甲酸酯测试除外)。

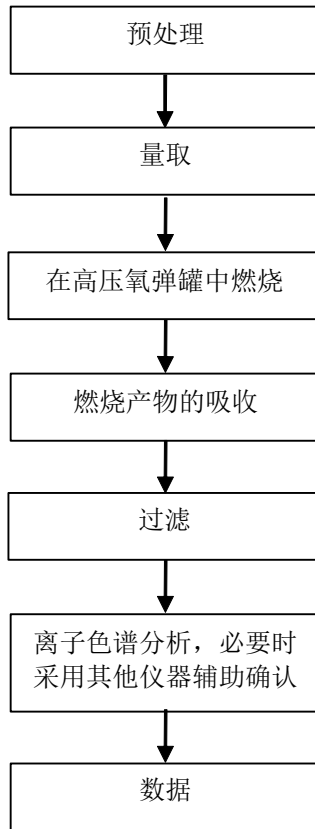


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附件

卤素测试流程图

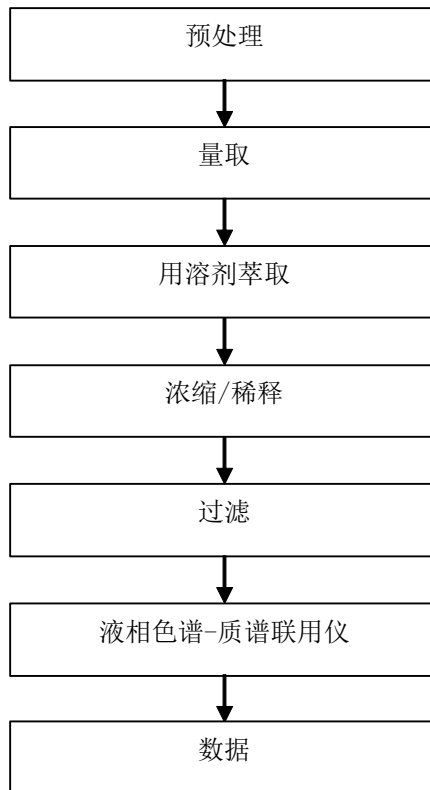


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PFOS/PFOA 测试流程图



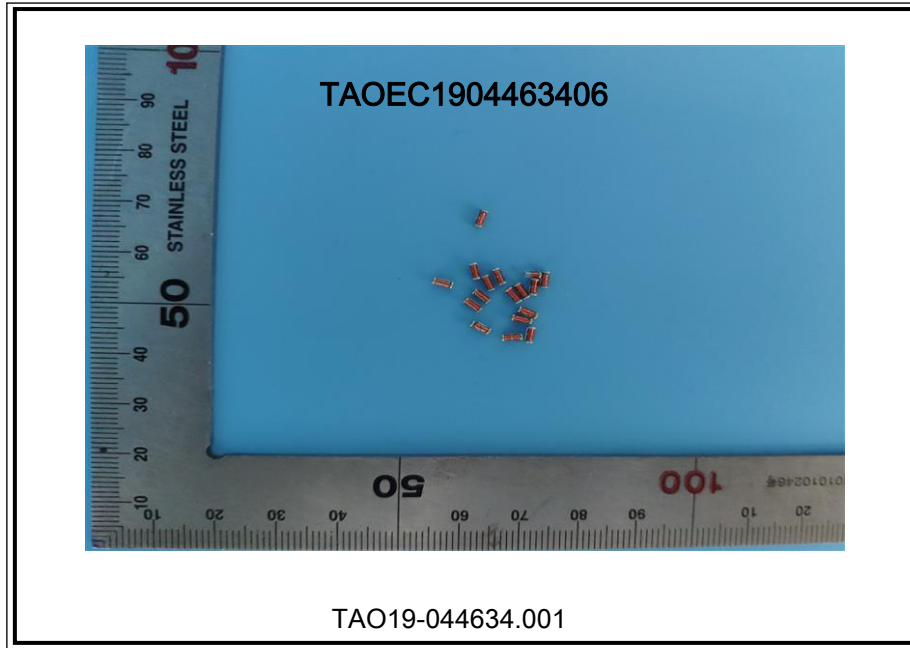
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