

测试报告

No. TAOEC2105524202

日期: 2021年10月12日 第1页,共11页

济南鲁晶半导体有限公司

中国济南市高新区飞跃大道2016号创新工场F1/F3

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: QP21-003576 - QD
型号: LL34
客户参考信息: DO-35, DO-34, DO-41G, LL34(MINI-MELF), LL41 (MELF)
样品接收日期: 2021年09月24日
测试周期: 2021年09月24日 - 2021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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日期: 2021年10月12日 第2页,共11页

测试结果:

测试样品描述:

样品编号	SGS样品ID	描述
SN1	TAO21-055242.001	带有银色金属和透明玻璃的的橙色固体(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

元素分析, 六价铬, 阻燃剂, 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	单位	MDL	001
镉(Cd)	mg/kg	2	ND
铅(Pb)	mg/kg	2	188622▲
汞(Hg)	mg/kg	2	ND
六价铬 (Cr(VI))	mg/kg	8	ND
多溴联苯之和(PBBs)	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)	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



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测试项目	单位	MDL	001
五溴二苯醚	mg/kg	5	ND
六溴二苯醚	mg/kg	5	ND
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)	mg/kg	50	ND
邻苯二甲酸苄基丁基酯(BBP)	mg/kg	50	ND
邻苯二甲酸二(2-乙基己基)酯(DEHP)	mg/kg	50	ND
邻苯二甲酸二异丁酯(DIBP)	mg/kg	50	ND

备注:

- 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。
- 采用IEC 62321-7-1:2015沸水萃取法核查测试样品未检出六价铬。

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

全氟辛烷磺酸及其衍生物(PFOS)和全氟辛酸(PFOA)及其盐

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

测试项目	CAS NO.	单位	MDL	001
全氟辛烷磺酸(PFOS)及衍生物	-	mg/kg	-	ND
全氟辛烷磺及其衍生物 (PFOS)^	1763-23-1	mg/kg	0.01	ND
N-乙基全氟辛烷磺酰胺 (EtFOSA)	4151-50-2	mg/kg	0.01	ND
2-(N-乙基全氟辛基磺酰胺)乙醇 (EtFOSE)	1691-99-2	mg/kg	0.01	ND
N-甲基全氟辛烷磺酰胺 (MeFOSA)	31506-32-8	mg/kg	0.01	ND
2-(N-甲基全氟辛基磺酰胺)乙醇 (MeFOSE)	24448-09-7	mg/kg	0.01	ND



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测试项目	CAS NO.	单位	MDL	001
全氟辛基磺酰胺 (PFOSA)	754-91-6	mg/kg	0.01	ND
全氟辛酸(PFOA)及其盐+		mg/kg	0.01	ND

备注:

- (1) ^全氟辛烷磺酸是指其酸、盐/衍生物, 包括全氟辛烷磺酸 (CAS No.: 1763-23-1), 全氟辛基磺酸钾 (CAS No.: 2795-39-3), 全氟辛基磺酸锂 (CAS No.: 29457-72-5), 全氟辛基磺酸铵 (CAS No.: 29081-56-9), 全氟辛烷磺酸二乙醇胺 (CAS No.: 70225-14-8), 全氟辛烷磺酸四乙铵 (CAS No.: 56773-42-3), 全氟辛基磺酸二癸二甲基铵(CAS No.:251099-16-8)和全氟辛基磺酰氟(CAS No.: 307-35-7)。
- (2) PFOA及其盐+是指其酸/盐, 包括全氟辛酸(CAS No.: 335-67-1), 全氟辛酸钠 (CAS No.: 335-95-5), 全氟辛酸钾 (CAS No.: 2395-00-8), 全氟辛酸银 (CAS No.: 335-93-3), 全氟辛酰氟 (CAS No.: 335-66-0) 和 全氟辛酸铵 (CAS No.: 3825-26-1)。

- 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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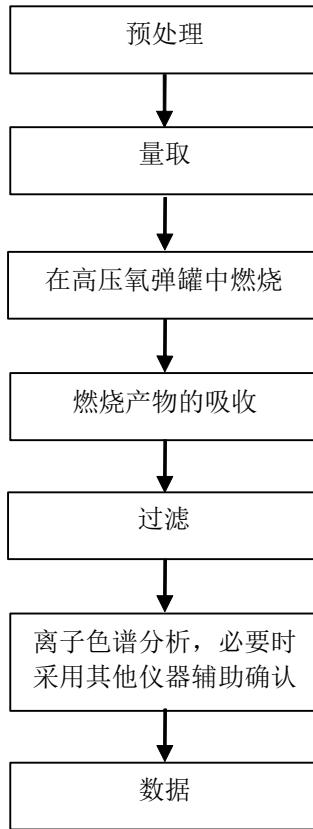


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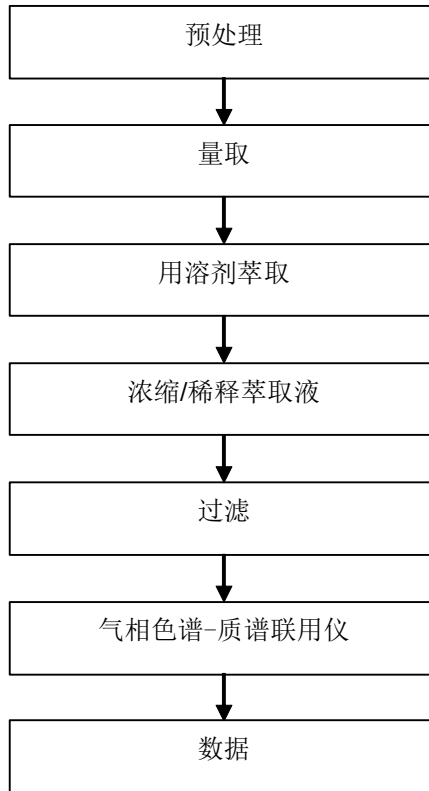
附件

卤素测试流程图



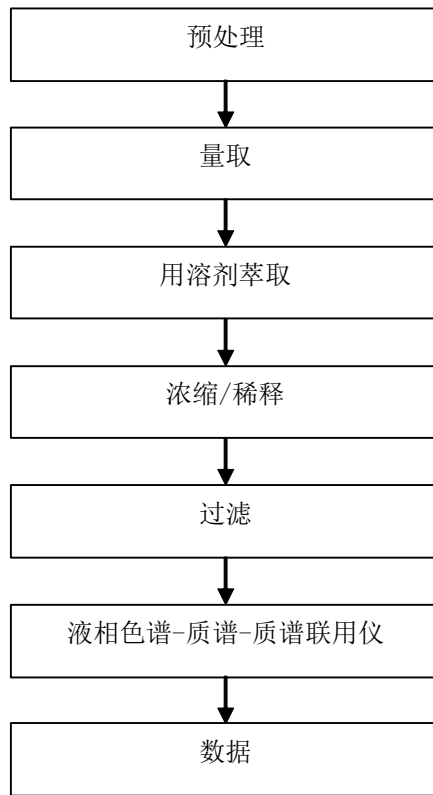
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PBBs/PBDEs 测试流程图



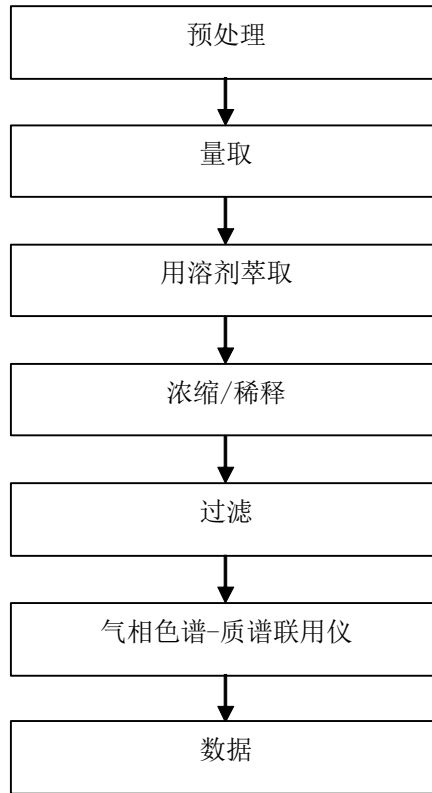
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PFOS/PFOA 测试流程图



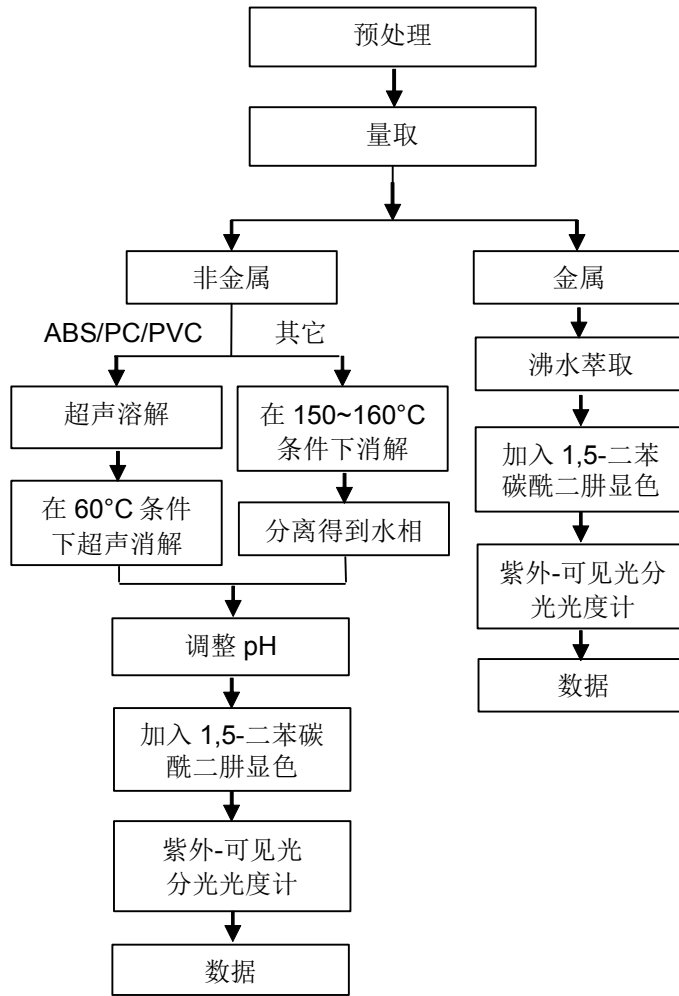
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Phthalates 测试流程图



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六价铬测试流程图

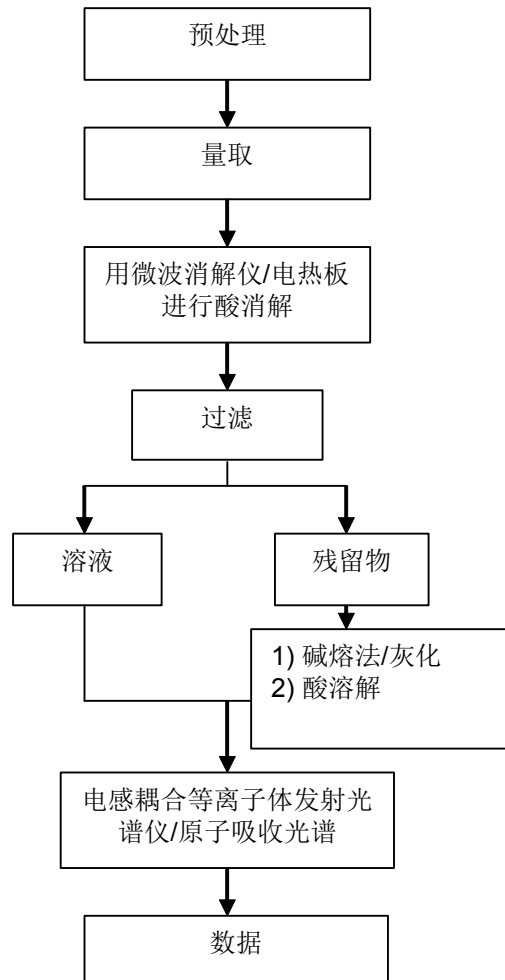


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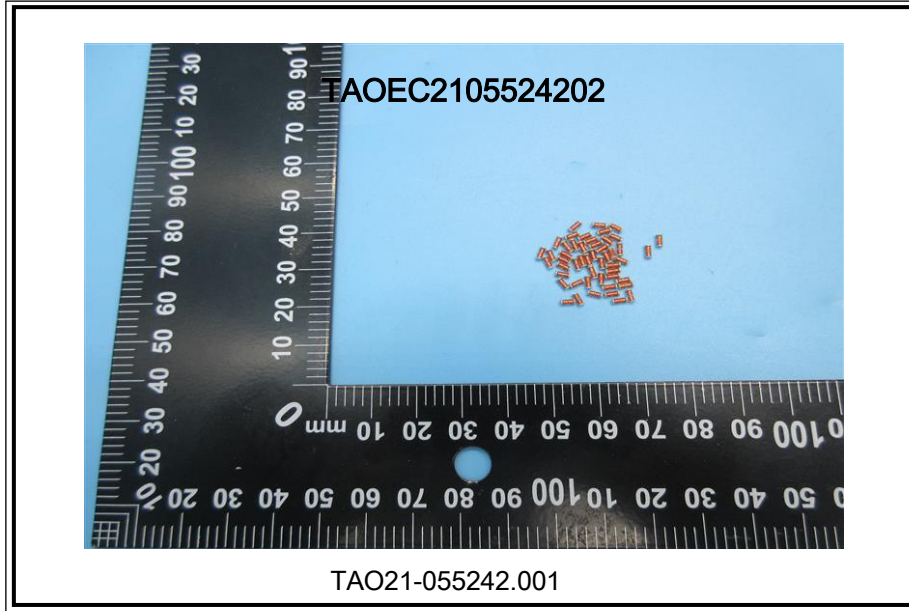
元素(IEC62321) 测试流程图

1)样品按照下述流程被完全消解



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