

## 检测报告

编号: TAOEC2206980016

日期: 2022年10月17日

第1页,共11页

客户名称: 济南汇丰中天电子科技有限公司

客户地址: 济南市高新区飞跃大道2016号创新工场F1/F3

样品名称: 塑封二极管

型号: SOD-123

客户参考信息: 塑封二极管,整流桥, MOS, DO-41,DO-15,DO-27,  
R-1,R-6,SMA,SMB,SMC,MBS,MBF,DB,WOM,KBL,KBU,KBJ,KBP,KBPC,SOT-23,  
SOT-323,SOT-363,SOT-523,SOT-723,SOT-923,SOT-113,SOT-89,SOD-123,SO  
D-323,SOD-523,SOD-723,SOD-923,TO-92,TO-126,TO-220,TO-251,TO-252,TO-  
3P,TO-247,TO263,TO-277,ABS,SOP-4,SOP-8, DFN,QFN

以上样品及信息由客户提供。

SGS工作编号: QP22-005818 - QD

样品接收日期: 2022年09月26日

检测周期: 2022年09月26日 - 2022年10月14日

检测要求: 根据客户要求检测

检测方法: 请参见下一页

检测结果: 请参见下一页

通标标准技术服务(青岛)有限公司  
授权签名

王渤

Wang Bo, Claire 王渤  
批准签署人

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检测结果:

检测样品描述:

样品编号	SGS样品ID	描述
SN1	TAO22-069800.002	带有银色金属引脚的黑色本体 (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

**欧盟RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863-铅、汞、镉、六价铬、多溴联苯(PBBs)、多溴二苯醚(PBDEs)、邻苯二甲酸二丁酯(DBP)、邻苯二甲酸丁苄酯(BBP)、邻苯二甲酸二(2-乙基己基)酯(DEHP)和邻苯二甲酸二异丁酯(DIBP)**

检测方法: 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。

检测项目	限值	单位	MDL	002
镉(Cd)	100	mg/kg	2	ND
铅(Pb)	1000	mg/kg	2	ND
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



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检测项目	限值	单位	MDL	002
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)	1000	mg/kg	50	ND
邻苯二甲酸丁苄酯(BBP)	1000	mg/kg	50	ND
邻苯二甲酸二(2-乙基己基)酯(DEHP)	1000	mg/kg	50	ND
邻苯二甲酸二异丁酯(DIBP)	1000	mg/kg	50	ND

备注:

- (1)最大允许极限值引用自RoHS指令(EU) 2015/863。
- (2) IEC 62321 系列等同于 EN 62321 系列
- (3) 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。
- (4)采用IEC 62321-7-1:2015沸水萃取法核查检测样品未检出六价铬。
- (5) 样品的检测是基于申请人要求混合检测, 报告中的混合检测结果不代表其中个别单一材质的含量, 该检测数据仅供参考。

## 卤素

检测方法: 参照EN 14582: 2016方法测定, 采用 IC进行分析。

检测项目	单位	MDL	002
氟(F)	mg/kg	50	ND
氯(Cl)	mg/kg	50	70
溴(Br)	mg/kg	50	ND
碘(I)	mg/kg	50	ND

备注:

- 样品的检测是基于申请人要求混合检测, 报告中的混合检测结果不代表其中个别单一材质的含量, 该检测数据仅供参考。

## 全氟辛烷磺酸(PFOS)及其衍生物和全氟辛酸(PFOA)及其盐

检测方法: 参照CEN/TS 15968:2010 方法, 采用LC-MS-MS检测。



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检测项目	CAS NO.	单位	MDL	002
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	0.010	ND
N-乙基全氟辛烷磺酰胺 (EtFOSA)	4151-50-2	mg/kg	0.010	ND
2-(N-乙基全氟辛基磺酰胺)乙醇 (EtFOSE)	1691-99-2	mg/kg	0.010	ND
N-甲基全氟辛烷磺酰胺 (MeFOSA)	31506-32-8	mg/kg	0.010	ND
2-(N-甲基全氟辛基磺酰胺)乙醇 (MeFOSE)	24448-09-7	mg/kg	0.010	ND
全氟辛基磺酰胺 (PFOSA)	754-91-6	mg/kg	0.010	ND
全氟辛酸(PFOA)及其盐+		mg/kg	0.010	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)。

(3) 样品的检测是基于申请人要求混合检测, 报告中的混合检测结果不代表其中个别单一材质的含量, 该检测数据仅供参考。

除非另有说明, 参照 ILAC-G8:09/2019, 使用简单接受 ( $w=0$ ) 的二元判定规则进行符合性判定。

除非另有说明, 此报告结果仅对检测的样品负责。本报告未经本公司书面许可, 不可部分复制。

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。

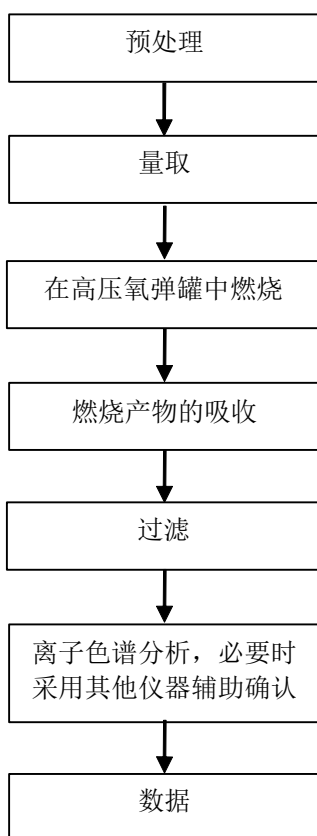


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## 附件

### 卤素检测流程图

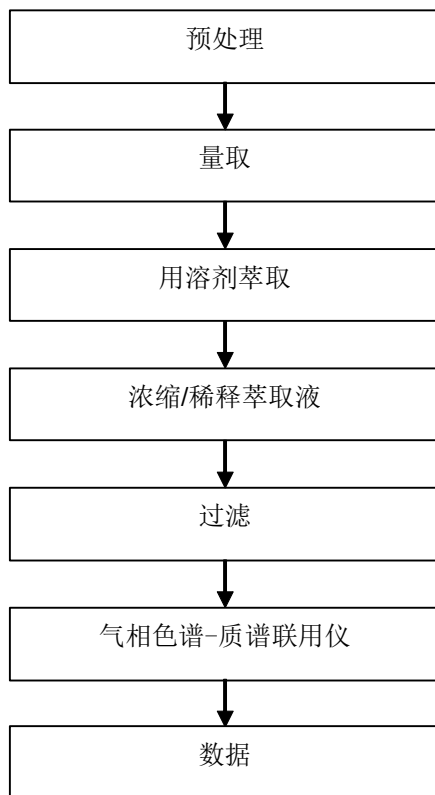


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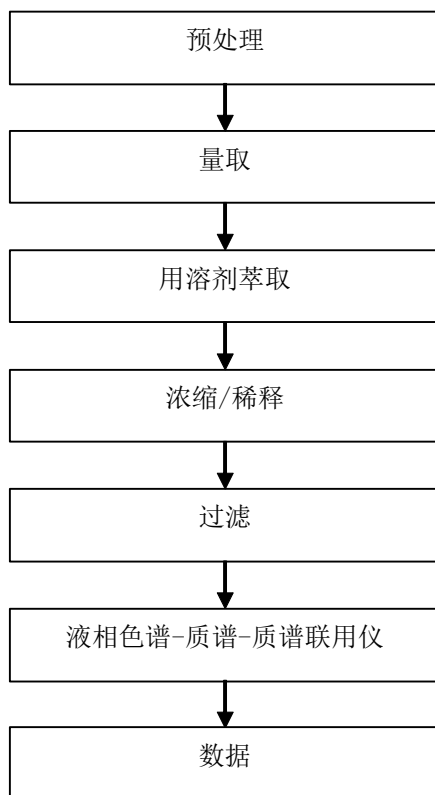
## PBBs/PBDEs 检测流程图



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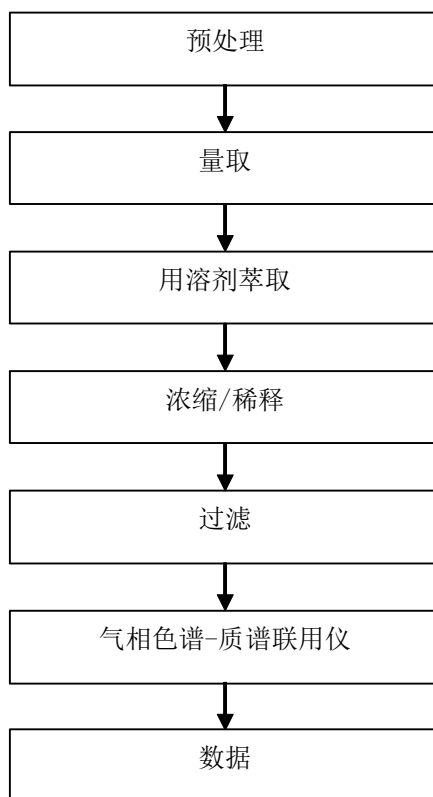
## PFOS/PFOA 检测流程图



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## Phthalates 检测流程图

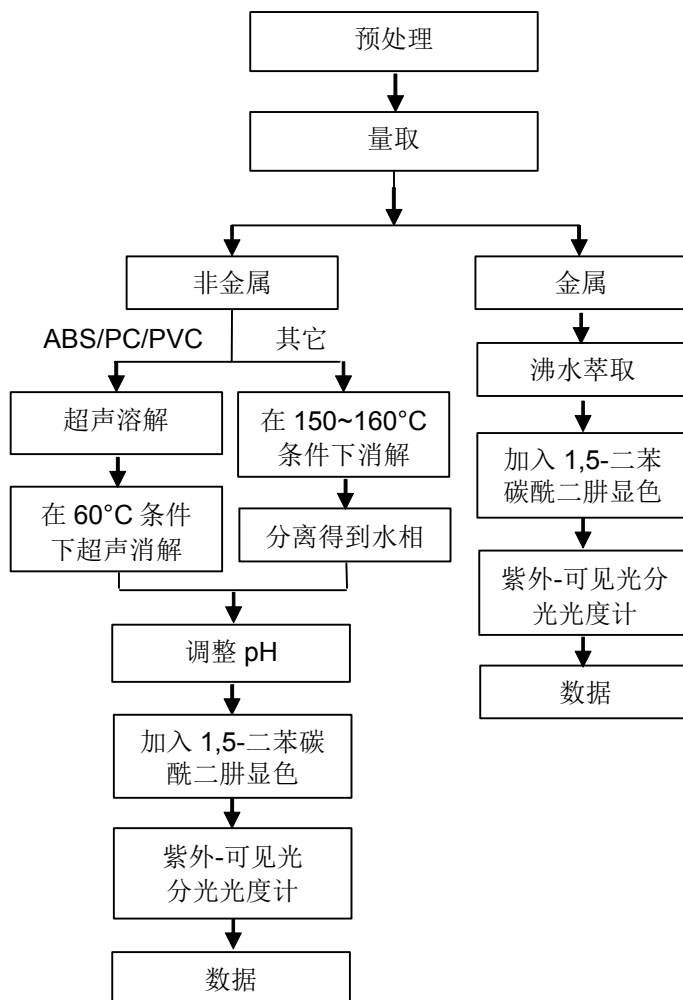


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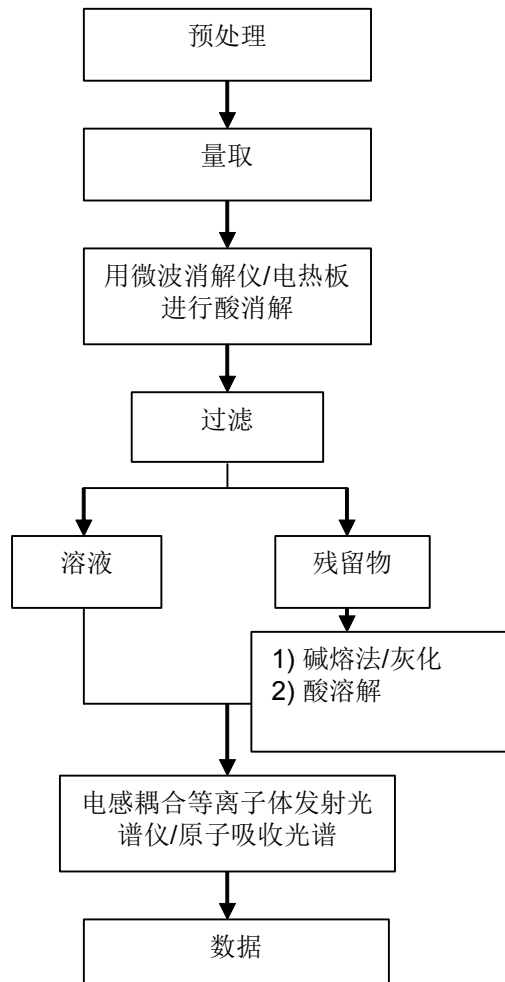


## 六价铬检测流程图



## 元素(IEC62321) 检测流程图

1)样品按照下述流程被完全消解



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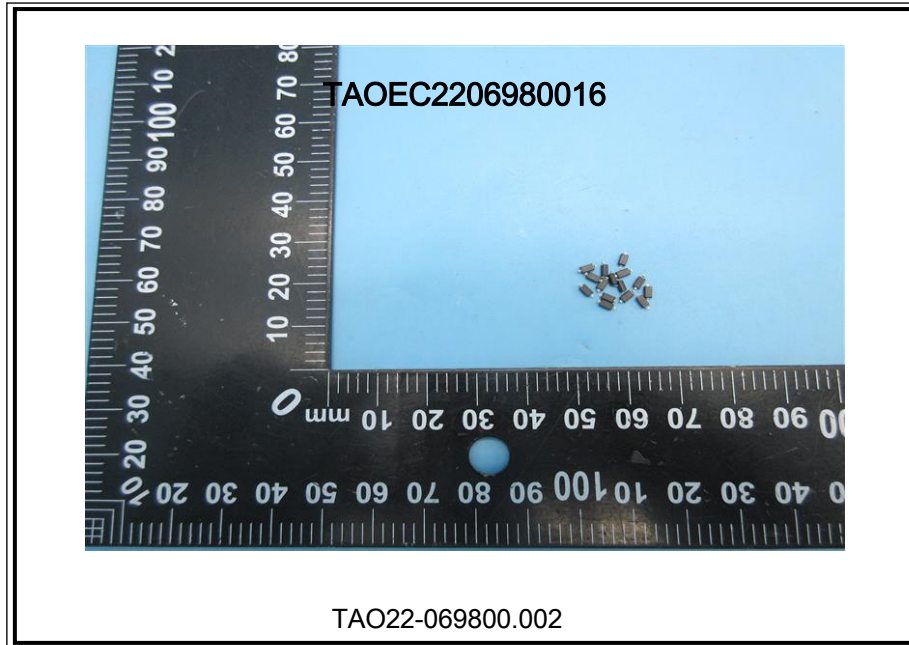
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