

检测报告

编号: CKGEC24000279504

日期: 2024 年 04 月 17 日

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客户名称: 四川金湾电子有限责任公司

客户地址: 四川省遂宁市经济开发区玉龙路微电子工业园 88 号

样品名称: 镀银层

客户参考信息: 见附件

批号: 20240407

主要成分: 银

以上样品及信息由客户提供。

SGS 工作编号: CQP24-003590

样品接收时间: 2024 年 04 月 12 日

检测周期: 2024 年 04 月 12 日 ~ 2024 年 04 月 17 日

检测要求: 根据客户要求检测

检测方法: 见后续页。

检测结果: 见后续页。

检测要求	结论
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 (PBB)、多溴二苯醚 (PBDE)、邻苯二甲酸二(2-乙基己基)酯 (DEHP)、邻苯二甲酸丁苄酯 (BBP)、邻苯二甲酸二丁酯 (DBP)和邻苯二甲酸二异丁酯 (DIBP)	符合

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授权签名

徐雯雯

Amber Xu 徐雯雯
批准签署人

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检测结果:

检测部件外观描述:

样品序号	样品编号	SGS 样品 ID	样品描述
SN1	A2	CKG24-0002795-0001.C002	银色金属

备注:

- (1) 1 mg/kg = 1 ppm = 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 (PBB)、多溴二苯醚 (PBDE)、邻苯二甲酸二(2-乙基己基)酯 (DEHP)、邻苯二甲酸丁苄酯 (BBP)、邻苯二甲酸二丁酯 (DBP)和邻苯二甲酸二异丁酯 (DIBP)

检测方法: 参考 IEC 62321-4:2013+AMD1:2017, IEC 62321-5:2013, IEC 62321-7-1:2015, IEC 62321-6:2015 和 IEC 62321-8:2017, 采用 ICP-OES/AAS, UV-Vis 和 GC-MS 进行分析。

检测项目	限值	单位	MDL	A2
铅 (Pb)	1000	mg/kg	2	ND
汞 (Hg)	1000	mg/kg	2	ND
镉 (Cd)	100	mg/kg	2	ND
六价铬 (Cr(VI))▼	-	µg/cm ²	0.10	ND
多溴联苯之和 (PBB)	1000	mg/kg	-	ND
一溴联苯 (MonoBB)	-	mg/kg	5	ND
二溴联苯 (DiBB)	-	mg/kg	5	ND
三溴联苯 (TriBB)	-	mg/kg	5	ND
四溴联苯 (TetraBB)	-	mg/kg	5	ND
五溴联苯 (PentaBB)	-	mg/kg	5	ND
六溴联苯 (HexaBB)	-	mg/kg	5	ND
七溴联苯 (HeptaBB)	-	mg/kg	5	ND
八溴联苯 (OctaBB)	-	mg/kg	5	ND
九溴联苯 (NonaBB)	-	mg/kg	5	ND
十溴联苯 (DecaBB)	-	mg/kg	5	ND
多溴二苯醚之和 (PBDE)	1000	mg/kg	-	ND
一溴二苯醚 (MonoBDE)	-	mg/kg	5	ND
二溴二苯醚 (DiBDE)	-	mg/kg	5	ND
三溴二苯醚 (TriBDE)	-	mg/kg	5	ND
四溴二苯醚 (TetraBDE)	-	mg/kg	5	ND
五溴二苯醚 (PentaBDE)	-	mg/kg	5	ND
六溴二苯醚 (HexaBDE)	-	mg/kg	5	ND
七溴二苯醚 (HeptaBDE)	-	mg/kg	5	ND
八溴二苯醚 (OctaBDE)	-	mg/kg	5	ND



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检测项目	限值	单位	MDL	A2
九溴二苯醚 (NonaBDE)	-	mg/kg	5	ND
十溴二苯醚 (DecaBDE)	-	mg/kg	5	ND
邻苯二甲酸二(2-乙基己基)酯 (DEHP)	1000	mg/kg	50	ND
邻苯二甲酸丁苄酯 (BBP)	1000	mg/kg	50	ND
邻苯二甲酸二丁酯 (DBP)	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) ▼ = a. 当六价铬的浓度高于 $0.13 \mu\text{g}/\text{cm}^2$ 时, 样品为阳性, 即含有六价铬;
b. 当六价铬的浓度为ND (低于 $0.10 \mu\text{g}/\text{cm}^2$) 时, 样品为阴性, 即未检测到六价铬;
c. 当六价铬的浓度介于 $0.10 \mu\text{g}/\text{cm}^2$ 与 $0.13 \mu\text{g}/\text{cm}^2$ 之间时, 无法直接判定是否检测到六价铬, 因不同个体的样品表面差异可能会影响测定结果。

由于未获知样品的存储条件和生产日期, 样品的六价铬检测结果仅能代表检测时样品含六价铬的状态。

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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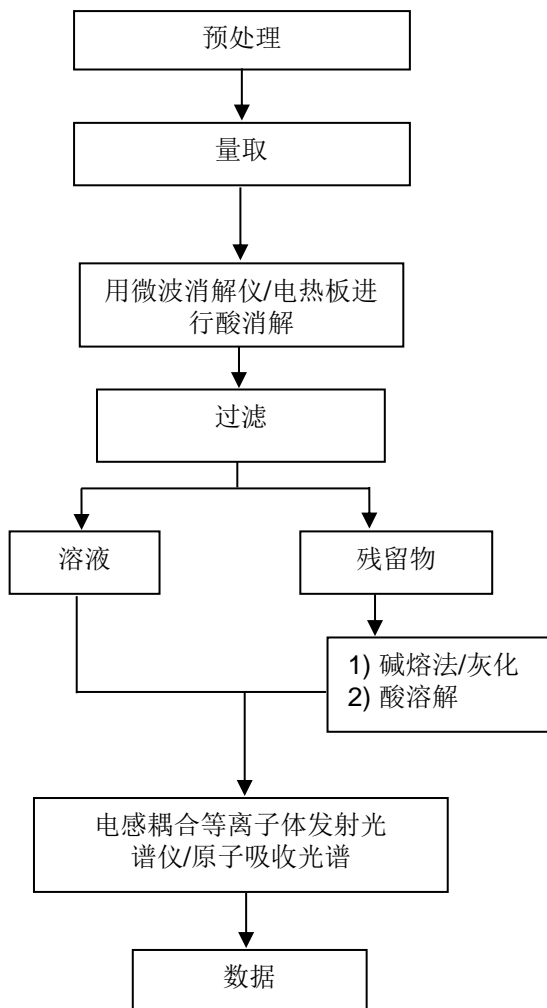
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元素检测流程图

样品按照下述流程被完全消解



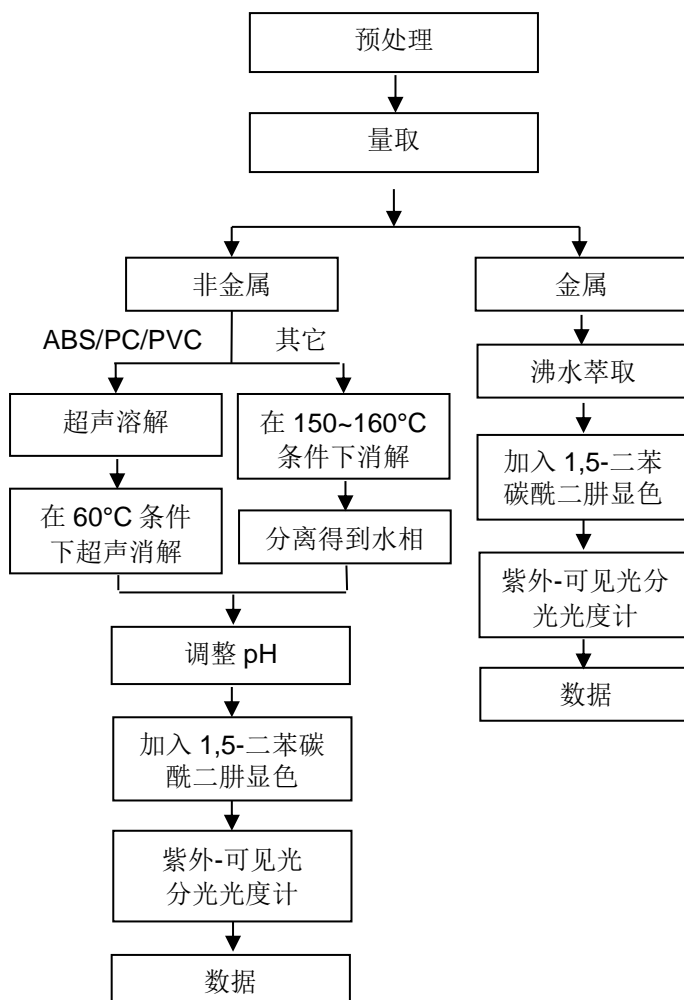
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六价铬检测流程图



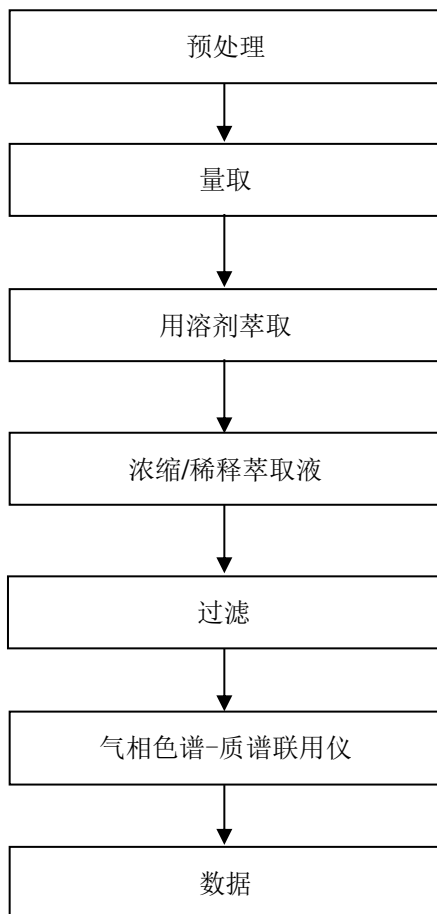
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PBB/PBDE 检测流程图



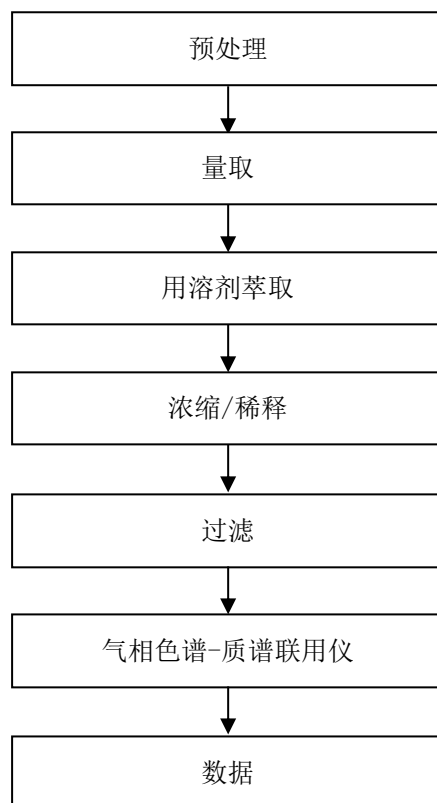
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Phthalates 检测流程图



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附件:

O-220HF-3L、TO-220HF-2L、TO-220F-3L、TO-220F、TO-220F3、TO-220FL、TO-220FTS、TO-220FS、TO-220F-2R、TO-220MF-DG-3L、TO-220MF-DGLP-3L、TO-220FP、TO-220MF-SG-3L、TO-220FDS、TO-220NF-DG-3L、TO-220NF-SG-3L、TO-220FWS、TO-220FC、TO-220FJ、TO-220SF-3L、TO-220FW、TO-220FJ 银、TO-220F-3L 银、TO-220FL 银、TO-220FP 银

TO-220FB3、TO-220FB4、TO-220FB5、TO-220HD、TO-220HW、TO-220C、TO-220CB、TO-263-M、TO-220R、TO-220AB-DU-3L、TO-220AB、TO-220AB-M、TO-220IR-3L、TO-220NB-5L、TO-220IX-3L、SOD-59、TO-220-2L、TO-220-5L、TO-220-6L、TO-220-7L、TO-220HDM、TO-220-2R、TO-220HWG、TO-220FB-LP-3L、TO-220HDMT、TO-220JK、TO-220FB 反冲、TO-220H、TO-220H-3L、TO-220FBY、TO-220HJH、TO-220HJA、TO-220HBK、TO-220Thick、TO-220FB-3L、TO-220G、TO-220FB-3L 镍、TO-220IX-3L 镍、TO-220IR-3L 镍、TO-220H 银、TO-220FB-LP-3L 镍、A-TO-220FB-3L_12 镍、A-TO-220IX-3L_12 镍

TO-263R、TO-263-DU-3L、TO-263NB-5L、TO-263-5L、TO-263HD、TO-263LF、TO-263-7L、TO-263-2R、TO-263HY-3L、TO-263LP-3L、TO-263-2-212、TO-263-2-214、TO-263HDM、TO-263FB、TO-220MF3、TO-263HDT、TO-263US-7L、TO-263LV-7L、TO-263CB、TO-263S-5L、TO-263-2-212 镍、TO-263-3L、TO-263-3L 银、TO-263NB-5L 银、TO-263YP、TO-263E、TO-263AB

TO-3P、TO-3PN、TO-3PB、TO-3PB-1、TO-3PB-2、TO-3PF-3L、TO-3PN 镍、A-TO-3PN-3L_12 镍

TO-247-2L、TO-247-3L、TO-247-4L、TO-247Plus-3L、TO-247Plus-4L、TO-247N-3L、TO-247AC-3L、TO-247H-3L、TO-247H-3L 银、TO-247-3L 镍、TO-247-4L 镍、TO-247Plus-3L 镍、TO-247Plus-4L 镍、A-TO-247-3L_12 镍、A-TO-247-4L_12 镍、TO-264

DPAK、DPAK-D、TO-252-4R、TO-252-4RA、IPAK、NIPAK、IPAK-LP、IPAK-LP-2L、IPAK-3、TO-252-6R、TO-252-2L-6R、TO-252-4RDP、IPAK-LP 银、IPAK-LP 镍、DPAK 银、TO-252-4R 银、TO-252-6R 银、TO-252-2L-6R 银、TO-252-4RDP 银

HZIP-25B、Clip-PPAK5X6、Clip-PPAK3X3、Clip-TOLL*、DFN5x6-CLIP*、TOLL、TOLT、STOLL



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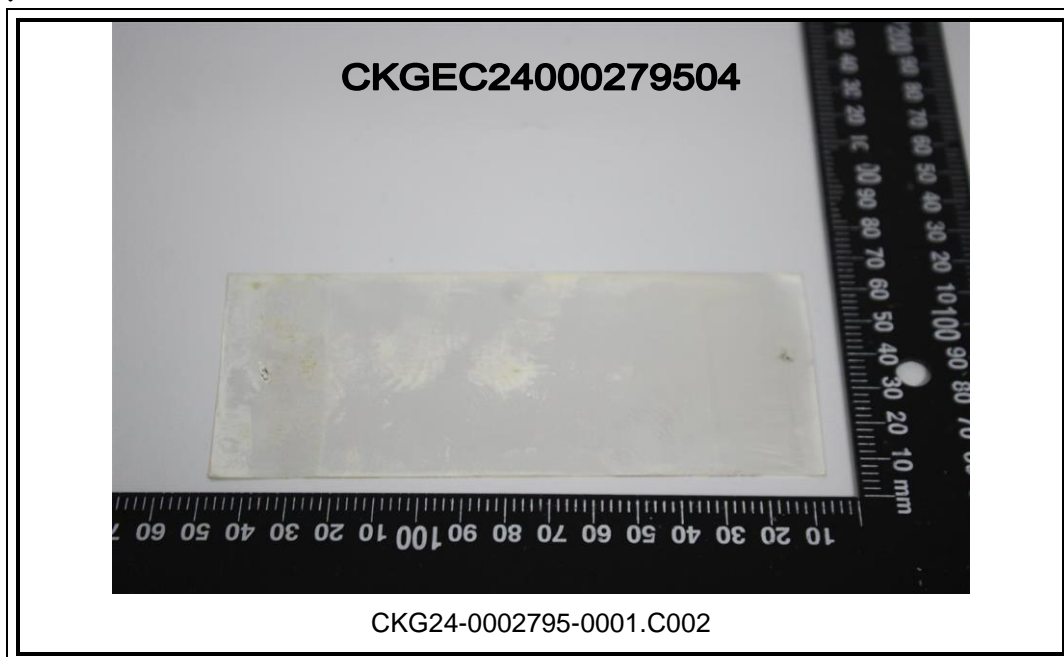
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