

## 检测报告

编号: SHAEC2216640812

日期: 2022年12月09日 第1页,共11页

客户名称: 國巨股份有限公司

客户地址: 231-45新北市新店寶橋路233-1號3樓

样品名称: THIN FILM CHIP RESISTOR

型号: RT series

以上样品及信息由客户提供。

SGS工作编号: SP22-028486 - SUZ

样品接收日期: 2022年11月29日

检测周期: 2022年11月29日 - 2022年12月09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(上海)有限公司  
授权签名

兰柳珍

Jenny Lan 兰柳珍  
批准签署人

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SGS-CTC (Shanghai) Technical Services (Shanghai) Co., Ltd.  
Testing Center (China) Limited

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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  | SHA22-166408.028 | 黑色/银色/白色THIN FILM CHIP RESISTOR(混合测*) |

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

### RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863

- 检测方法:
- (1) 参考IEC 62321-5:2013, 用ICP-OES测定镉的含量
  - (2) 参考IEC 62321-5:2013, 用AAS测定铅的含量
  - (3) 参考IEC 62321-4:2013+AMD1:2017, 用ICP-OES测定汞的含量
  - (4) 参考IEC 62321-7-2:2017, 用UV-Vis分析六价铬含量
  - (5) 参考IEC 62321-6:2015, 用GC-MS测定PBBs(多溴联苯)和PBDEs(多溴二苯醚)的含量
  - (6) 参考IEC 62321-8:2017, 用GC-MS测定邻苯二甲酸酯的含量

| 检测项目           | 限值   | 单位    | MDL | 028 |
|----------------|------|-------|-----|-----|
| 镉(Cd)          | 100  | mg/kg | 2   | ND  |
| 铅(Pb)          | 1000 | mg/kg | 2   | 35  |
| 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  |



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| 检测项目                  | 限值   | 单位    | MDL | 028 |
|-----------------------|------|-------|-----|-----|
| 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  |
| 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。

IEC 62321系列等同于 EN 62321 系列

(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。

## 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 | 028 |
|--------|-------|-----|-----|
| 氟 (F)  | mg/kg | 50  | ND  |
| 氯 (Cl) | mg/kg | 50  | ND  |
| 溴 (Br) | mg/kg | 50  | ND  |
| 碘 (I)  | mg/kg | 50  | ND  |

## 元素

检测方法: 参照US EPA 方法3052:1996测定, 采用ICP-OES进行分析。

| 检测项目  | 单位    | MDL | 028 |
|-------|-------|-----|-----|
| 锑(Sb) | mg/kg | 10  | ND  |



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\*样品基于申请人要求为混合检测。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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Testing Center-Chemical Laboratory

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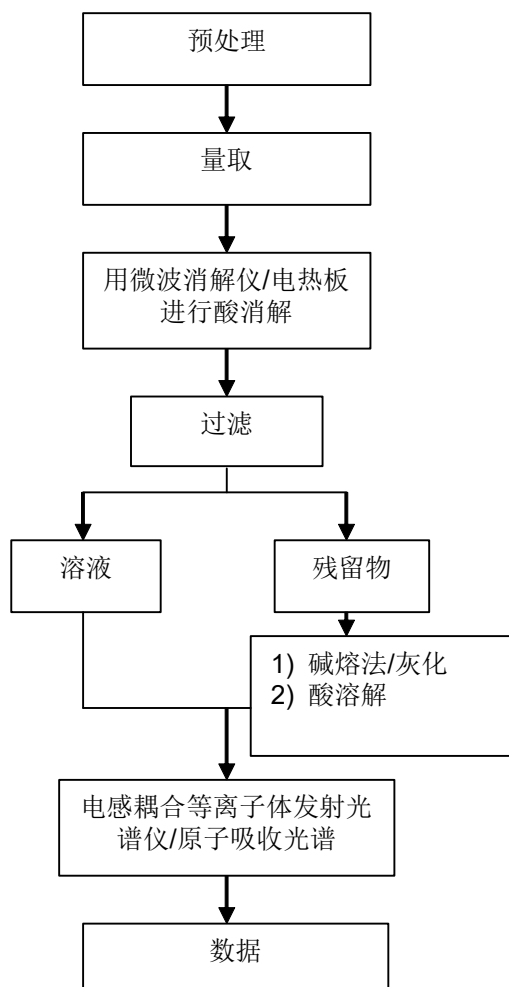
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## 元素(IEC62321) 检测流程图

- 1) 分析人员: 金叶/宋珂静
- 2) 项目负责人: 徐亮/张小波
- 3) 样品按照下述流程被完全消解



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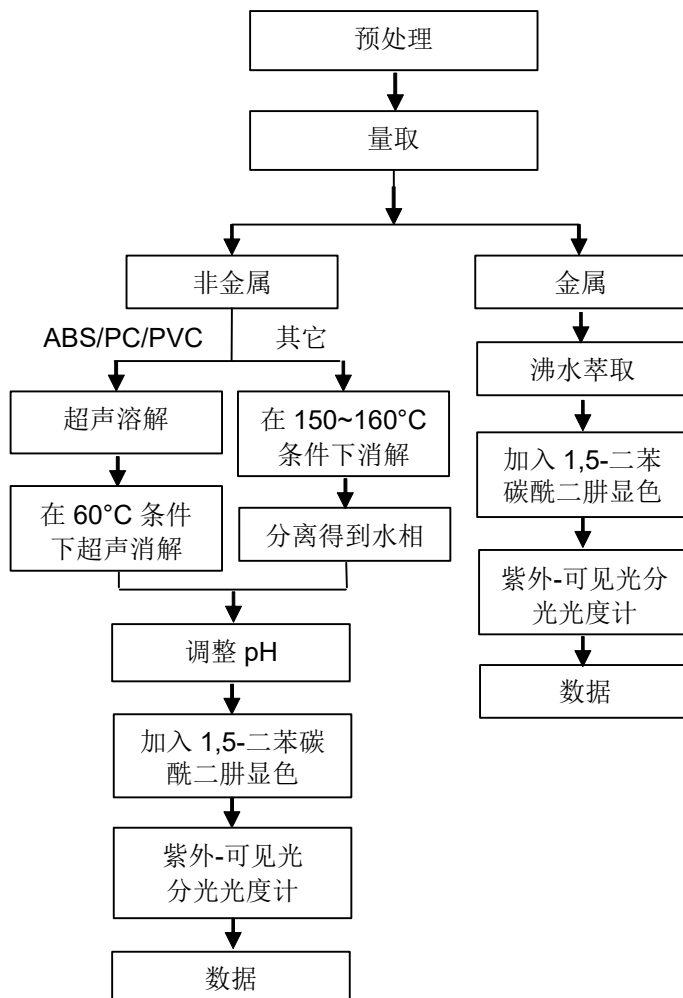
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### 附件

### 六价铬检测流程图

- 1) 分析人员: 王永旭
- 2) 项目负责人: 杨小龙



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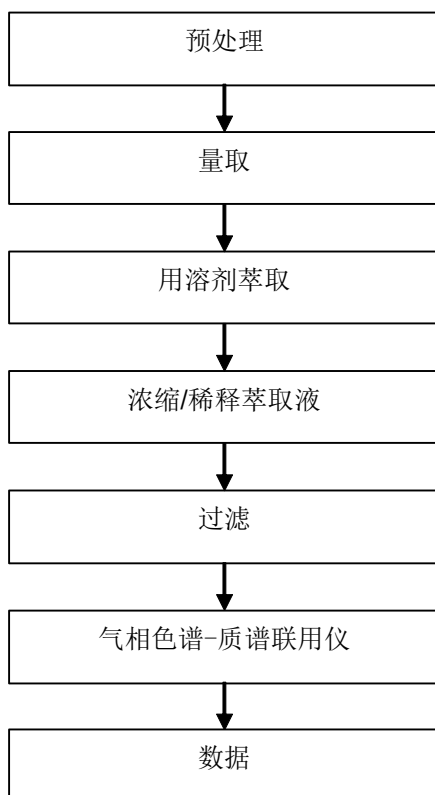
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### PBBs/PBDEs 检测流程图

- 1) 分析人员: 徐刚
- 2) 项目负责人: 张玉明



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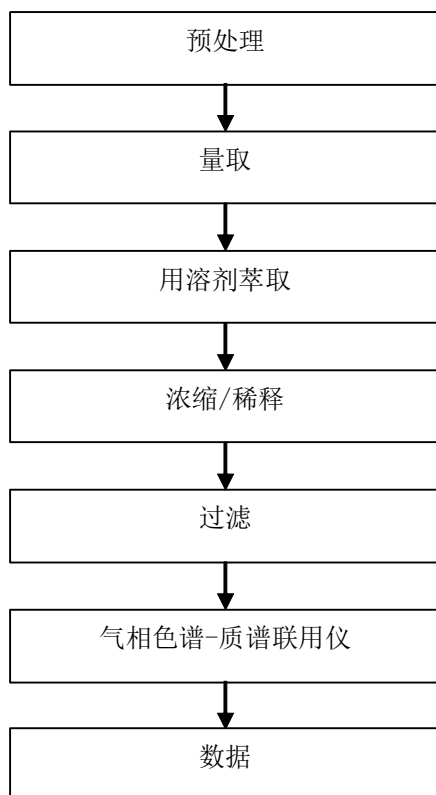
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## Phthalates 检测流程图

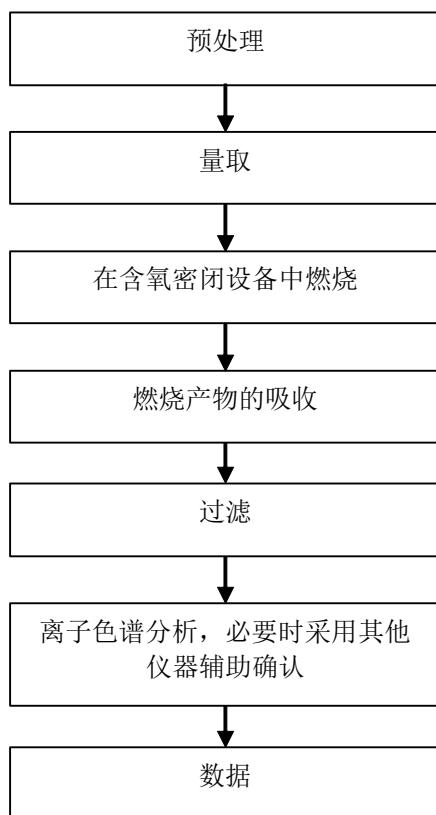
- 1) 分析人员: 韩晓春
- 2) 项目负责人: 张玉明





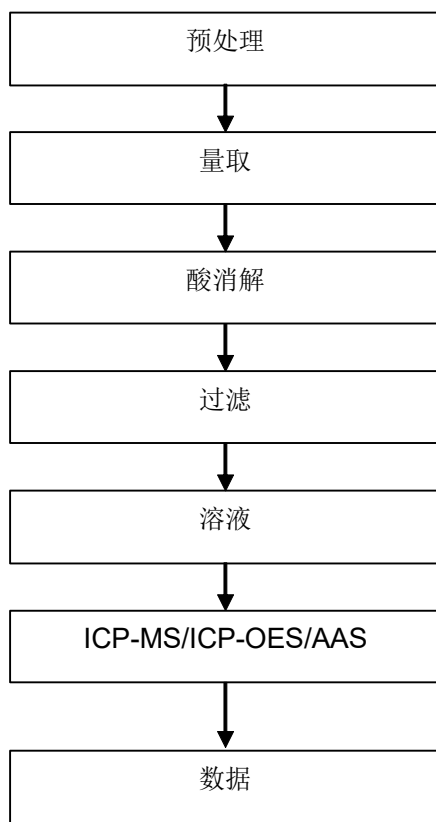
## 卤素检测流程图

- 1) 分析人员: 张景群
- 2) 项目负责人: 陈俊烨



## 元素检测流程图

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- 2) 项目负责人: 徐亮/张小波

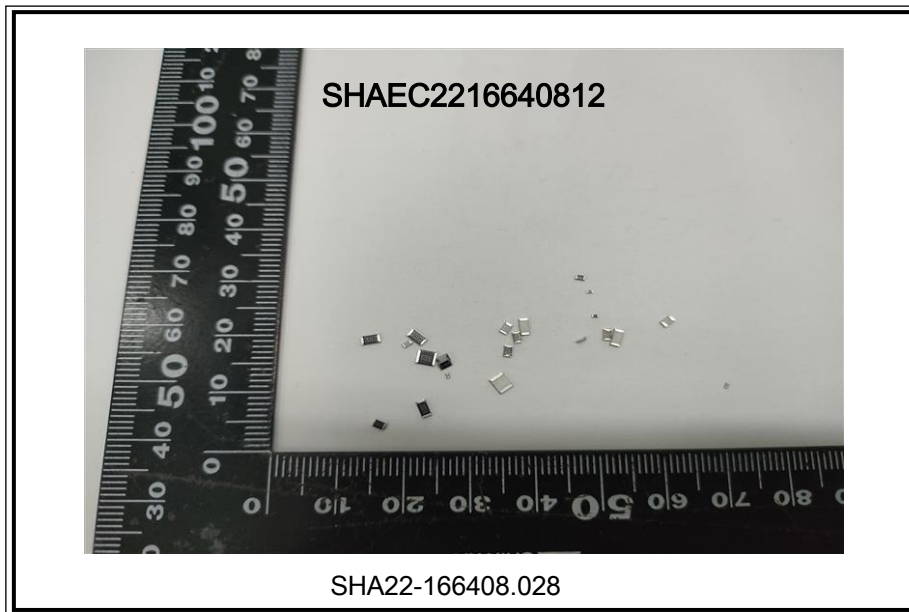


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