

测试报告

No. CANEC1521452602

日期: 2015年12月17日 第1页,共6页

深圳市柯瑞光电科技有限公司

深圳市宝安区福永镇凤凰第一工业区华源小区A栋8楼C

以下测试之样品是由申请者所提供及确认: LED 3528 灯珠

SGS工作编号: CP15-069216 - SZ
型号: 3528
客户参考信息: 3528RGB,3528R,3528Y,3528B,3528G
样品接收日期: 2015年12月10日
测试周期: 2015年12月10日 - 2015年12月16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
结论: 基于所送样品进行的测试, 镉、铅、汞、六价铬、多溴联苯(PBBs)、多溴二苯醚(PBDEs)的测试结果不超过欧盟RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863的限值要求。

通标标准技术服务有限公司广州分公司
授权签名

Daisy Dai 戴斐
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	CAN15-214526.001	"LED 3528 灯珠"

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

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

- 测试方法:
- (1)参考IEC 62321-5:2013, 用ICP-OES测定镉的含量
 - (2)参考IEC 62321-5:2013, 用ICP-OES测定铅的含量
 - (3)参考IEC 62321-4:2013, 用ICP-OES测定汞的含量
 - (4)参考IEC 62321:2008, 用紫外-可见分光光度计比色法测定六价铬的含量
 - (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

测试项目	限值	单位	MDL	001
镉 (Cd)	100	mg/kg	2	ND
铅 (Pb)	1,000	mg/kg	2	ND
汞 (Hg)	1,000	mg/kg	2	ND
六价铬(Cr(VI))	1,000	mg/kg	2	ND
多溴联苯之和(PBBs)	1,000	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)	1,000	mg/kg	-	ND
一溴二苯醚	-	mg/kg	5	ND
二溴二苯醚	-	mg/kg	5	ND



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测试项目	限值	单位	MDL	001
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

备注:

- (1) 最大允许极限值引用自RoHS指令(EU) 2015/863。
- (2) 2015年6月4号发表在欧盟官方杂志(官方公报)上的RoHS指令(EU) 2015/863附录II限值中还包括邻苯二甲酸酯BBP, DBP, DEHP和DBP。新的指令限制了电子电器产品的每一个均一材质中邻苯二甲酸酯含量不得超过0.1%。
- (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) DEHP, BBP, DBP 和 DIBP的限制不适用于2019年7月22日前投放市场的电缆及电子电气产品中用于维修、重复利用、功能更新及容量提升的备用配件以及2021年7月22日前投放市场的医疗器械, 包括体外医疗器械, 监控仪表, 包括工业监测和控制仪器。
- (5) DEHP、BBP 和 DBP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 和 DBP含量进行了限制。

卤素

测试方法: 参照EN 14582:2007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



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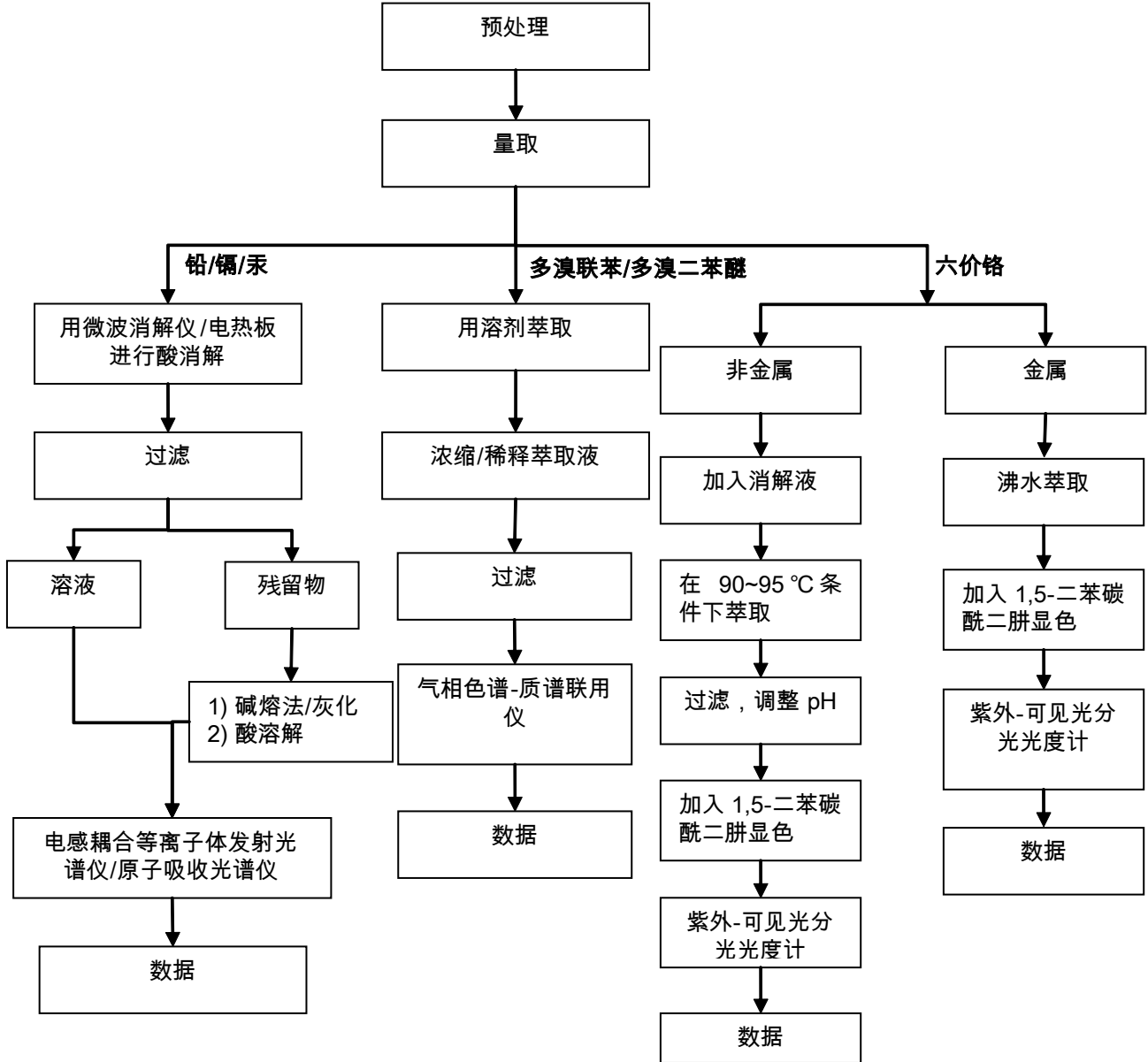
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附件

Pb/Cd/Hg/Cr⁶⁺/PBBs/PBDEs 测试流程图

- 1) 分析人员：肖戈 / 胡香云
- 2) 项目负责人：汪丹 / 余晓璐
- 3) 样品按照下述流程被完全消解 (六价铬和多溴联苯 / 多溴二苯醚测试除外)。



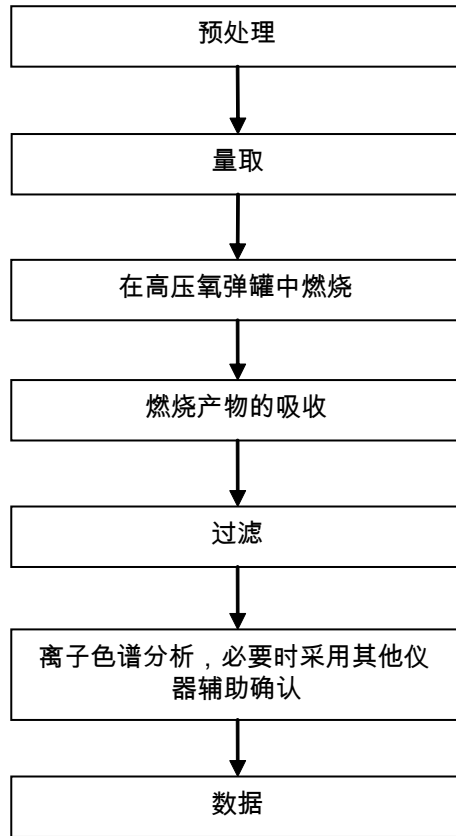
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附件

Halogen 测试流程图

- 1) 分析人员：萧汉明
- 2) 项目负责人：汪丹



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