检测报告

编号 ：TJIN2304000588PL02_CN

日期 ：2023-04-20

扫码查看在线报告

TJIN2304000588PL02

客户名称：京华塑业有限公司

客户地址：河北省廊坊市文安县兴隆宫镇产业功能区京华路 1 号

样品名称 ：石墨烯超导热地暖管

产品规格 ：dn20x1.9

货号或批号 ：2023/03/20

生 产 商 ：京华塑业有限公司

以上信息及样品由客户提供及确认，SGS 不承担证实客户提供信息的准确性、适当性和(或)完整性的责任。

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SGS 参考号 ：SHA03-23041796-FX-0Cn

收样日期 ：2023-04-13

测试周期 ：2023-04-13 ~ 2023-04-20

测试结果 ：请见下页（除另有特别说明外，此报告结果仅对测试样品负责）

通标标准技术服务(天津)有限公司

授权签名

王曦

王曦 授权签字人

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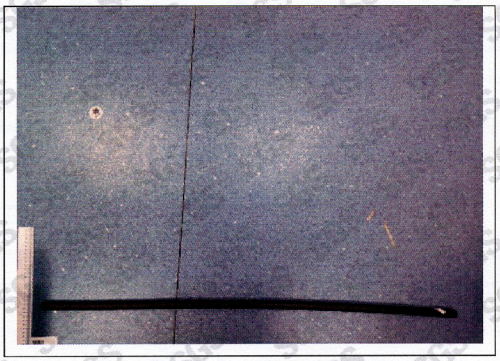
结果总结：

序号	测试项目	测试依据	结果
1	石墨烯定量	TGA/Raman	~11-12 %

原样照片：



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TJPML 003041

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1. TGA

图 1-1 是样品在氮气氛围下的 TGA 图谱，体现的是树脂的失重信息。

图 1-2 是样品在常规切空气下的 TGA 谱图，493℃左右是树脂的失重温度，728℃左右是石墨烯的失重温度。

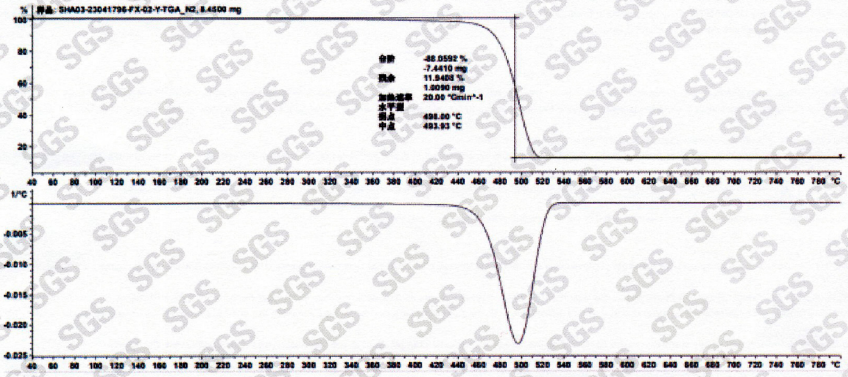

图 1-1 样品在氮气氛围下的 TGA 谱图

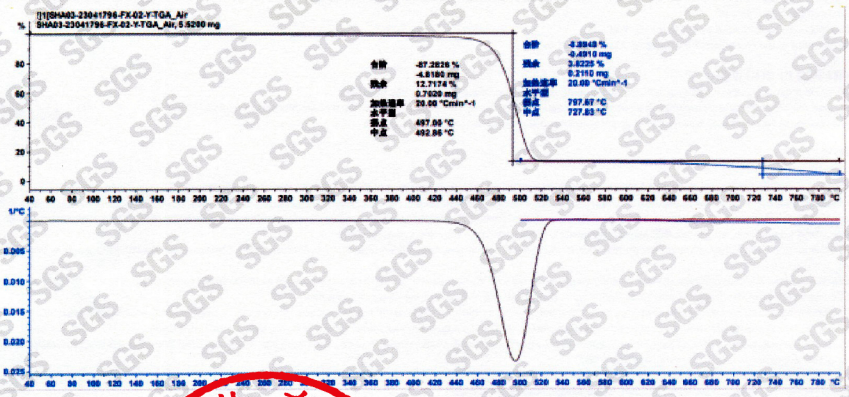

图 1-2 样品在常规切空气下的 TGA 谱图

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2. Raman

图 2 是样品在氮气氛围下烧完残碳的拉曼光谱图，其中 1344，1578cm^{-1} 左右的出峰分别为石墨烯的 D 带和 G 带

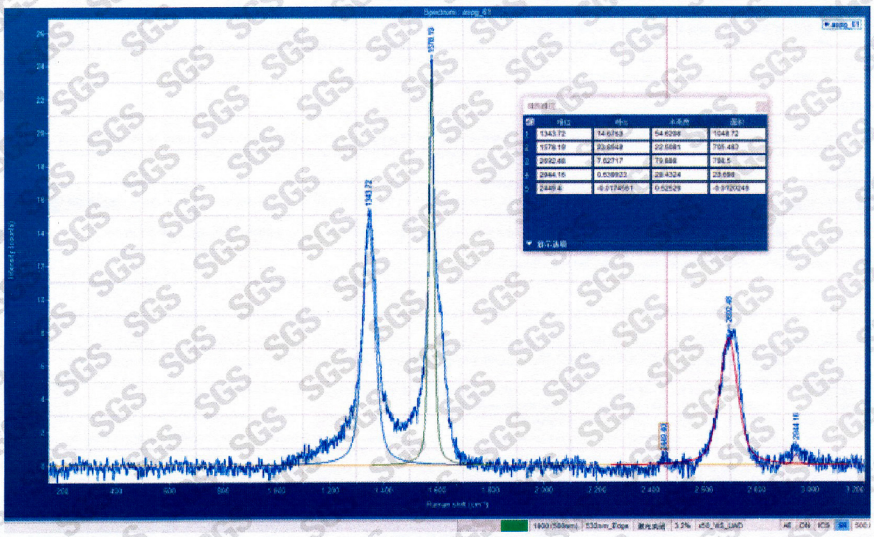

图 2 样品在氮气氛围下烧完残碳的拉曼光谱图

备注：* 检测项目/方法由分包方执行。

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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