

柔性电子封装结构中夹杂对延展性的影响分析 (PDF)

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Title: Inclusion effect on the stretchability of encapsulated flexible electronics

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关键词: [柔性电子](#); [夹杂](#); [岛-桥结构](#); [最大延伸量](#); [封装形式](#)

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摘要: 以岛-桥型柔性电子封装结构为研究对象, 从封装材料中夹杂的刚度、位置、封装方式三个方面探讨了夹杂对柔性电子结构延展性的影响。有限元分析结果表明: 随着夹杂刚度的增大, 桥的最大主应变增大, 整体结构最大延伸量可减小30%; 夹杂埋藏位置越深, 桥顶局部的整体应变水平越大, 最大延伸量可减小20%; 相对“硬”封装情形, 相同的夹杂对“软”封装中桥的最大延伸量的影响更严重。本文所得结论对于柔性电子器件结构的设计和材料选用具有参考和指导意义。

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