SOI压力传感器的灵敏度优化设计

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摘　要：

目前压阻式压力传感器灵敏度优化仿真计算仅基于压阻条整体性几何分布，在相关参数的优化上存在局限性，且在模门用于SOI压力传感器，通过精确分析敏感栅的栅数、栅长以及其坐标分布的最佳组合参数，结合不同量程芯体膜厚Microsoft Visual C++平台以及有限元、数值分析等接口技术，采用参数化建模，有限元分析仿真，数值后处理，编制化程序。通过实验数据验证优化设计与实际吻合较好。

关键词：SOI压力传感器;灵敏度;优化设计;有限元;敏感栅

Design Optimization for the sensitivity of SOI pressure sensor

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Abstract:

The common approaches to sensitivity optimization simulation was based on the piezoresistive geometric distribution. Howe optimization parameters, and It might have some errors during modeling and calculations. This paper presented one of the m to SOI pressure sensor. To approach that it was combined the proper parameters for the number, length and coordinates of S body thickness calculation through accurate analysis. Design Optimization software for the Sensitivity of SOI Pressure Sens + platform, and which using the interface technologies for the finite element and numerical analysis, building the model param doing post-processing using numerical tools. It was concluded that the optimization data agreed well with the actual through

Keywords: SOI Pressure Sensor ;Sensitivity;Design Optimization;Finite Element;Sensing Grid Element