Investigation on MEMS Based Thermal Sensor for Cancer Detection

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Abstract

This paper presents the design and simulation of a thermal sensor using COMSOL Multiphysics® software for the detection of low body temperature syndrome which can allow the early detection of cancer. This sensor is made of an alloy consisting of two materials with different coefficients of thermal expansion. The main objective of this work is to investigate the structural change in the sensor for different body temperatures that produces thermal strain which can be detected for diagnosing the disease conditions.