

## عنوان مقاله:

Application of fast analytical design on MEMS pressure sensors

## محل انتشار:

بیست و پنجمین همایش سالانه مهندسی مکانیک (سال: 1396)

تعداد صفحات اصل مقاله: 2

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## خلاصه مقاله:

This study provides a fast analytical design for MicroElectro-mechanical system (MEMS) pressure sensors. Byutilizing the Kirchhoff-Love law and perfect gas theory todesign an analytical model of pressure sensors, it shows thatsquare pressure sensors withstand higher pressure incomparison with the circular ones and they are moresensitive as well. This demonstrates the high performanceof these sensors. Applying pressure in the cavity of thepressure sensors with constant cavity temperature also canlead to an increase in performance period of these sensorswhile the variations in .temperature may change the results.Comparing the obtained results to the reference 6 approvesthis claim

## کلمات کلیدی:

Analytical expression, MEMS, pressure sensor,square sensor

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/634640>

