

Rapid Response Microsensor for Hydrogen Detection using Responsive Nanostructured Films

Disclosure Number

201102534

Technology Summary

The use of Palladium (and other) based surfaces has been explored for hydrogen sensing devices using MEM's devices, specifically microcantilever systems. In our efforts, active microcantilever surfaces have been created by depositing a sacrificial metallic film onto one side of the cantilever beam. Subsequently, the cantilever is subjected to a galvanic deposition of metallic, porous Pd with removal of the sacrificial silver film. Our systems are characterized by very rapid responses, high sensitivity, good selectivity, and long life.

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