

The Office of Technology Management

UNIVERSITY OF TEXAS  ARLINGTON

Flexible Strain Sensor

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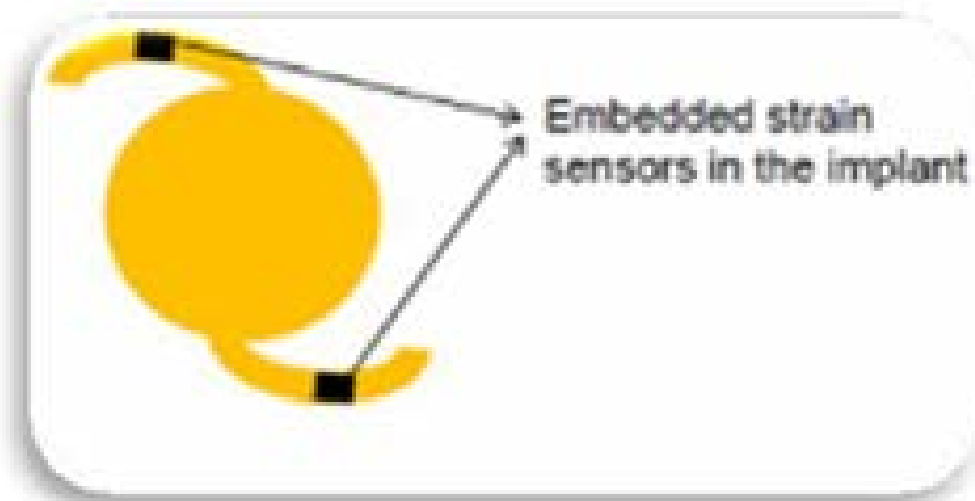
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TECHNOLOGY NEED

With the world's aging population increasing, so is the prevalence of cataracts and glaucoma, which can lead to irreversible damage and loss of vision. Cataracts alone afflict more than half of the U.S. population over 80 years old. There is a need for a pressure monitoring system that can be embedded with implantable intraocular lenses (IOL's) to detect changes in the wearer's lens instantaneously. As compared to the current state of art, the solution needs to be highly flexible and real time based for high performance.

INVENTION DESCRIPTION/SOLUTION

A bio compatible strain sensor that can be embedded on implantable intra ocular lenses to detect strain and pressure changes has been developed. The sensors have simple two-step fabrication process that is easily scalable and can be embedded directly with passive and active wireless communication. These sensors have the capability of reducing the structural restrictions of conventional sensors. Indeed, the flexible strain sensor can be formed to have nearly any shape.



APPLICATIONS

- Ophthalmology applications
- Disease monitoring

KEY BENEFITS

- Biocompatible and flexible
- Embedded in implantable intra ocular lens
- Simple two-step fabrication process
- Wireless communication

STAGE OF DEVELOPMENT

Prototype
Extensive tests done

INTELLECTUAL PROPERTY STATUS

Patent granted
[US9752861B2](#)



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