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# Intraocular Pressure Microsensor Utilizing Radio **Frequency Interrogation**

Tech ID: 33785 / UC Case 2016-620-0

## BRIEF DESCRIPTION

A miniature, implantable sensor for measuring intraocular pressure in the human eye by utilizing radio frequency interrogation.

## FULL DESCRIPTION

Researchers at UC Irvine have developed a sensor capable of measuring and communicating intraocular pressure. Comprised of small antenna patterned onto a microfluidic structure, the miniature size of this device is suitable for implantation into the human eye. Resonant properties of the antenna change in response to the local pressure, resulting in varied frequencies of reflection when an external radio signal is provided. Pressure measurements can thus be inferred from scanning the radio frequencies, offering quick and simple readouts.

#### SUGGESTED USES

- » Ophthalmic clinics treating conditions that affect intraocular pressure, such as glaucoma.
- » Medical device companies specializing in eye health and vision research.

### **ADVANTAGES**

- » Enables easy and continuous monitoring of intraocular pressure without tapping or pushing against the eye for individual measurements.
- » Suitable for implantation within the human eye, due to its small size.
- » Does not require an external power, due to its passive design.

» Able to communicate with external devices by receiving and reflecting radio signals, unlike other sensors that require a microscope or a camera for readouts.

### PATENT STATUS

Country	Туре	Number	Dated	Case
United States Of America	Published Application	20200253493	08/13/2020	2016-620

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### OTHER INFORMATION

#### CATEGORIZED AS

#### >> Medical

- » Diagnostics
- Ophthalmology and Optometry
- >>> Sensors & Instrumentation
  - » Medical

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2016-620-0



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