PMUT FOR BLOOD PRESSURE MONITORING

Tech ID: 32952 / UC Case 2023-031-0

PATENT STATUS

Patent Pending

BRIEF DESCRIPTION

Cardiovascular disease is among the leading causes of death for citizens in affluent nations, and the most significant cause of morbidity in those with cardiovascular disease is hypertension. Often called the “silent killer” because it has few clinical signs in its early stages, elevated blood pressure is often in an advanced stage before it is treated, leading to a substantially worse prognosis than if it had been detected earlier.

In order to address this problem, researchers at UC Berkeley have developed a wearable device which continuously monitors diastolic blood pressure, transmitting data to a portable device such as a cell phone, where it can be stored and analyzed. The device utilizes piezoelectric transducers to perform the measurement, which allows the wearable device to remain small while containing a large number of sensors in order to reduce noise.

SUGGESTED USES

Continuous monitoring of diastolic blood pressure in order to identify and monitor early-stage hypertension.

ADVANTAGES

This device is small, flexible, and inexpensive enough to be worn as a preventative monitoring device, allowing hypertension to be detected in its early stages and treated at a time when the prognosis remains favorable. The many sensors on the device allow a reliable reading despite the device’s small size.

RELATED MATERIALS

CONTACT

Terri Sale
terri.sale@berkeley.edu
tel: 510-643-4219.

INVENTORS

» Lin, Liwei

OTHER INFORMATION

KEYWORDS

Hypertension, Health monitoring, Medical wearables, Blood pressure, Preventative diagnostics

CATEGORIZED AS

» **Biotechnology**
» Bioinformatics
» Health
» **Medical**
» Devices
» Diagnostics
» Disease: Cardiovascular and Circulatory System
» Screening
» **Sensors & Instrumentation**
» Biosensors

RELATED CASES

2023-031-0

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

- Subcutaneous and Continuous Blood Pressure Monitoring by PMUTS
- Reconfigurable Soft Li-Ion Battery
- Fabrication of enhanced supercapacitors using atomic layer deposition of metal oxide on nanostructures

University of California, Berkeley Office of Technology Licensing
2150 Shattuck Avenue, Suite 510, Berkeley,CA 94704
Tel: 510.643.7201 | Fax: 510.642.4566
https://ipira.berkeley.edu/ | otl-feedback@lists.berkeley.edu