



## Vitamin D Biosensor

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### Field

Biomedical Applications  
Devices and Instruments

### Patent/Patent Application

**Number:**  
61/137,480

### Summary

The invention is a biosensor for vitamin D, based on electrochemical detection. The biosensor consists of two parts: (1) an enzyme based working electrode and (2) a hand-held electronic device for measuring current or voltage or impedance as a function of vitamin D concentration.

### Technology

During enzymatic catalysis, an electrical signal is measured and calibrated to known concentrations of active vitamin D (i.e., calibration curve). The electrical signal can be current, voltage, or impedance. A miniaturized format is envisioned to decrease costs. The vitamin D meter will employ linear sweep voltammetry and a microcontroller. A prototype device has been made. The device allows measurement of vitamin D levels in blood.

### INVENTOR(S):

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