

**Title: Wearable biosensor for glucose monitoring in real samples****Mohammad Mehmandoust**

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A flexible glove-based electrochemical biosensor with a highly flexible printed electrode system has been created as a wearable point-of-use screening tool for military and food security applications. I describe a wearable glove-based biosensor that detects glucose electrochemically on patients' fingers. The glove-based sensor comprises flexible screen-printed carbon electrodes that have been enhanced with 1T-MoS<sub>2</sub> nanosheets. Using differential pulse voltammetry, the sensor detects direct glucose oxidation in real samples with a low detection limit of 150.0  $\mu\text{M}$ . Wireless data transfer from the "Lab-on-a-Glove" sensors and a portable electrochemical analyzer to a smartphone or tablet for further examination in real samples is provided by the "Lab-on-a-Glove" sensors and a portable electrochemical analyzer. The integrated sampling and sensing methodology on the thumb and index fingers allows for rapid glucose screening in the presence of interferent agents and holds great promise for timely point-of-need screening for first responders. This glove-based "swipe, scan, sense, and alarm" technique puts chemical analytics at the user's fingers and opens new avenues for identifying misused chemicals in emergencies.

**Biography**

I completed a bachelor's degree in 2018 years from Hakim Sabzevari University. I have published 19 papers in scientific journals, and I also am a reviewer of several journals. Now I am doing a Master in Analytical Chemistry, at Ankara University, Turkey.