Supporting Information

ElectroSens Platform with Polyelectrolyte-Based Carbon Fiber Sensor for Point-of-Care analysis of Zn in Blood and Urine

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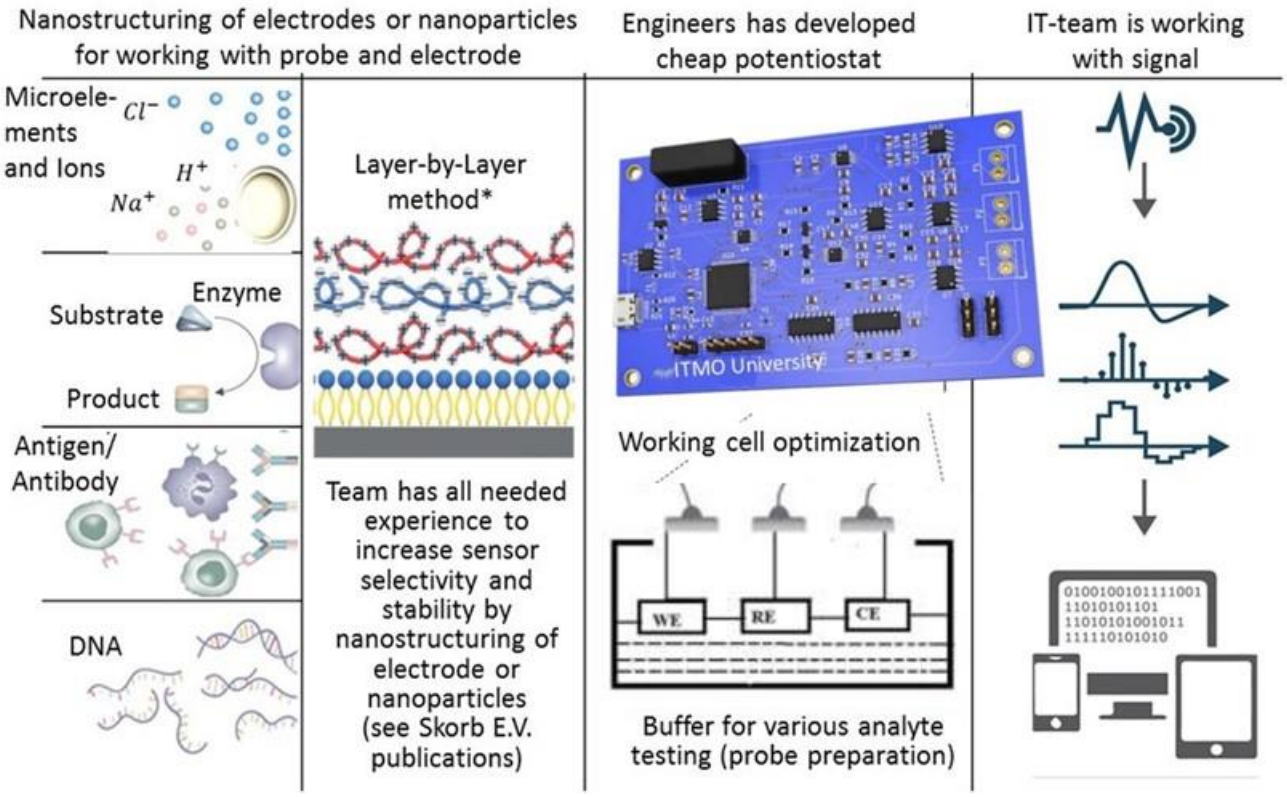

Figure S1. Today electrochemical platform—ElectroSens—has huge potential for various Point-of-Care analysis. For success interdisciplinary team of chemists, engineers, IT and medical doctors is needed. Schematic is adopted from the review[1]. Here, we demonstrate example of ElectroSens Platform for Point-of-Care analysis of Zn in Blood and Urine.

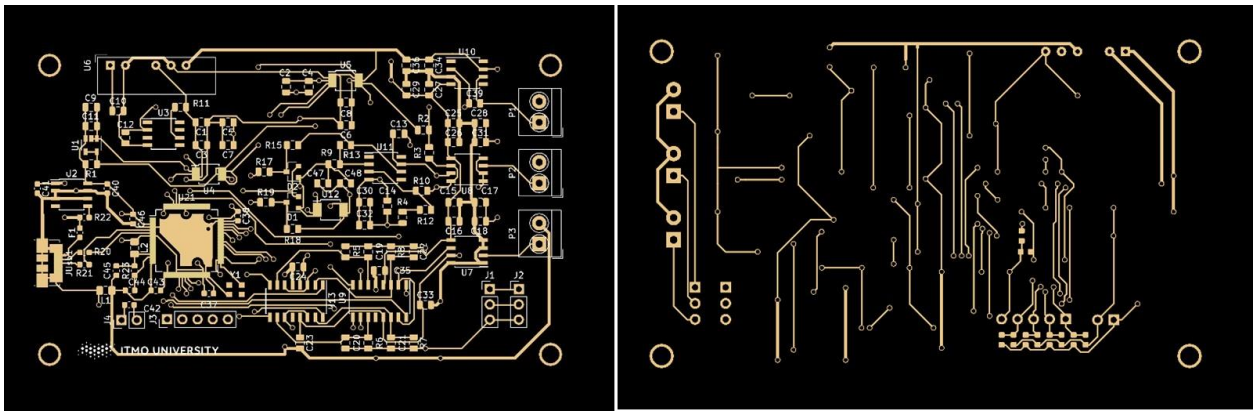

Figure S2. Design and layout of the PCB. Then all elements were soldered manually to the printed circuit board.

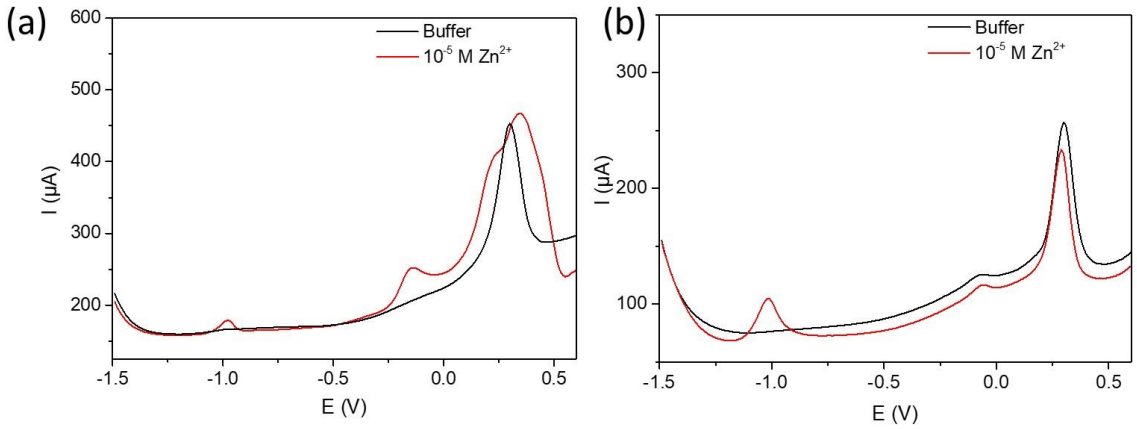

Figure S3. SWASW of CF modified electrodes: $(PEI(Hg^{2+})/PSS(Hg^{2+}))_2$ (a) and $CF/(PEI/Hg^{2+}/PSS/Hg^{2+})_2$ (b) in acetate buffer solution (pH 3.6) – black line and in 10^{-5} M Zn^{2+}.

Table S1. Source code of the Android application for the miniaturized potentiostat.

gradle.properties

```
# Project-wide Gradle settings.
# IDE (e.g. Android Studio) users:
# Gradle settings configured through the IDE *will override*
# any settings specified in this file.
# For more details on how to configure your build environment visit
# http://www.gradle.org/docs/current/userguide/build_environment.html
# Specifies the JVM arguments used for the daemon process.
# The setting is particularly useful for tweaking memory settings.
org.gradle.jvmargs=-Xmx1536m
```

```
# When configured, Gradle will run in incubating parallel mode.

# This option should only be used with decoupled projects. More details, visit

#
http://www.gradle.org/docs/current/userguide/multi_project_builds.html#sec:decoupled_proj
ects

# org.gradle.parallel=true

# AndroidX package structure to make it clearer which packages are bundled with the

# Android operating system, and which are packaged with your app's APK

# https://developer.android.com/topic/libraries/support-library/androidx-rn

android.useAndroidX=true

# Automatically convert third-party libraries to use AndroidX

android.enableJetifier=true
```

See also SI Video and Attached Software.

[1] Biosensors and Bioelectronics 98 (2017) 437–448.