Tables

Table 1. Comparative analysis of the results obtained for the positive samples evaluated under the two incubation regimes based on the application of the AuNP-CB/PET-SPE immunosensor.

| **Sample** | **river water** | **artificial saliva** | **blood serum** |
| --- | --- | --- | --- |
| Added SP concentration / pg mL−1 | 76.5 | 76.5 | 76.5 |
| 10 min incubation (qualitative assay) | + | + | + |
| 120 min incubation (quantitative assay) / pg mL−1 | (68 ± 9) | (71 ± 13) | (81 ± 14) |

Table 2. Comparative analysis of low-cost SARS-CoV-2 tests reported in the literature based on spike protein detection.

| **Detection** | **Biorecognition** | **sample** | **time required** | **LOD** | **Cost/unit USD** | **Ref.** |
| --- | --- | --- | --- | --- | --- | --- |
| SWV[1](https://www.sciencedirect.com/science/article/pii/S266683192300022X?via%3Dihub#tb2fn1) | antigen-antibody affinity | saliva/serum | 10 min | 101 fg mL−1 | 0.29 | this work |
| SWV[1](https://www.sciencedirect.com/science/article/pii/S266683192300022X?via%3Dihub#tb2fn1) | antigen-ACE2[2](https://www.sciencedirect.com/science/article/pii/S266683192300022X?via%3Dihub#tb2fn2) affinity | oro/nasopharyngeal fluid/saliva | 6.5 min | 229 fg mL−1 | 1.50 | [[14]](https://www.sciencedirect.com/science/article/pii/S266683192300022X?via%3Dihub#bib0014) |
| EIS[3](https://www.sciencedirect.com/science/article/pii/S266683192300022X?via%3Dihub#tb2fn3) | antigen-antibody affinity | spike protein solution in PBS | ∼10 min | 1.065 fg mL−1 | 5 | [[38]](https://www.sciencedirect.com/science/article/pii/S266683192300022X?via%3Dihub#bib0038) |
| EIS[3](https://www.sciencedirect.com/science/article/pii/S266683192300022X?via%3Dihub#tb2fn3) | antigen-antibody affinity | serum | ∼90 min | 0.5 µg mL−1 | 10.11[4](https://www.sciencedirect.com/science/article/pii/S266683192300022X?via%3Dihub#tb2fn4) | [[39]](https://www.sciencedirect.com/science/article/pii/S266683192300022X?via%3Dihub#bib0039) |
| EIS[3](https://www.sciencedirect.com/science/article/pii/S266683192300022X?via%3Dihub#tb2fn3) | antigen-ACE2[2](https://www.sciencedirect.com/science/article/pii/S266683192300022X?via%3Dihub#tb2fn2) affinity | oro/nasopharyngeal fluid/saliva | 4 min | 2.18 fg mL−1 | 4.67 | [[40]](https://www.sciencedirect.com/science/article/pii/S266683192300022X?via%3Dihub#bib0040) |
| EIS[3](https://www.sciencedirect.com/science/article/pii/S266683192300022X?via%3Dihub#tb2fn3) | antigen-aptamer affinity | nasopharyngeal fluid | 15 min | not informed | 0.31[5](https://www.sciencedirect.com/science/article/pii/S266683192300022X?via%3Dihub#tb2fn5) | [[41]](https://www.sciencedirect.com/science/article/pii/S266683192300022X?via%3Dihub#bib0041) |
| amperometric[6](https://www.sciencedirect.com/science/article/pii/S266683192300022X?via%3Dihub#tb2fn6) | antigen-invertase conjugated aptamer affinity | saliva | 60 min | 5.27 pmol *L* −1 (0.4 ng mL−1) | 3.2 | [[42]](https://www.sciencedirect.com/science/article/pii/S266683192300022X?via%3Dihub#bib0042) |
| Colorimetric | antigen-ACE2[2](https://www.sciencedirect.com/science/article/pii/S266683192300022X?via%3Dihub#tb2fn2) affinity | oro/nasopharyngeal fluid | 5 min | 0.154 pg mL−1 | 0.15 | [[9]](https://www.sciencedirect.com/science/article/pii/S266683192300022X?via%3Dihub#bib0009) |
| Chemiluminescent lateral flow | antigen-antibody affinity | spike protein solution in PBS | 16 min | 0.1 ng mL−1 | 0.9 | [[43]](https://www.sciencedirect.com/science/article/pii/S266683192300022X?via%3Dihub#bib0043) |

1SWV: Square-wave voltammetry;.

2[ACE2](https://www.sciencedirect.com/topics/chemistry/angiotensin): Angiotensin-converting enzyme-2;.

3EIS: [Electrochemical impedance spectroscopy](https://www.sciencedirect.com/topics/chemistry/dielectric-spectroscopy);.

4converted from euro (€);.

5converted from pound sterling (£);.

6Indirect current response based on glucose measurement (in mg/dL) of Accu-Chek GuideMe glucometer.