

Electronic Supplementary Material (ESI)

Truncated Electrochemical Aptasensor with Enhanced Antifouling Capability for Highly Sensitive Serotonin Detection

Ziheng Hu ^{1,2}, Ruifeng Zhu ¹, Gabriela Figueroa-Miranda ¹, Lei Zhou ¹, Lingyan Feng ³, Andreas Offenhäusser ¹ and Dirk Mayer ^{1,*}

¹ Institute of Biological Information Processing, Bioelectronics (IBI-3), Forschungszentrum Jülich GmbH, 52428 Jülich, Germany; z.hu@fz-juelich.de (Z.H.); r.zhu@fz-juelich.de (R.Z.); g.figueroa.miranda@fz-juelich.de (G.F.-M.); leizhou1@outlook.com (L.Z.); a.offenhaeuser@fz-juelich.de (A.O.)

² Faculty I, RWTH Aachen University, 52062 Aachen, Germany

³ Department of Materials Genome Institute, and Department of Chemistry, College of Science, Shanghai University, Shanghai 200444, China; lingyanfeng@t.shu.edu.cn

* Correspondence: dirk.mayer@fz-juelich.de

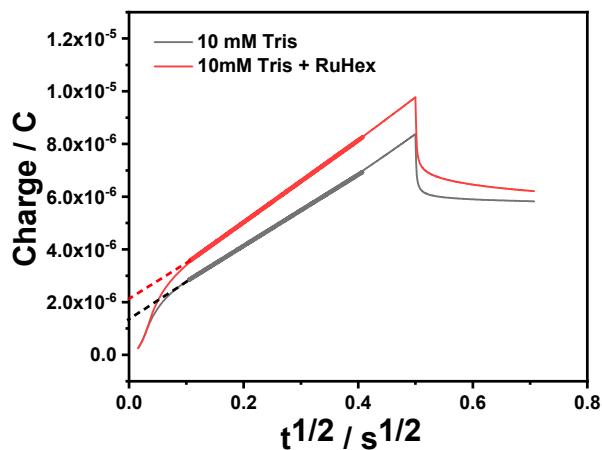


Figure S1. Determination of the surface density by chronocoulometric measurements in 10 mM Tris buffer and 50 mM RuHex.

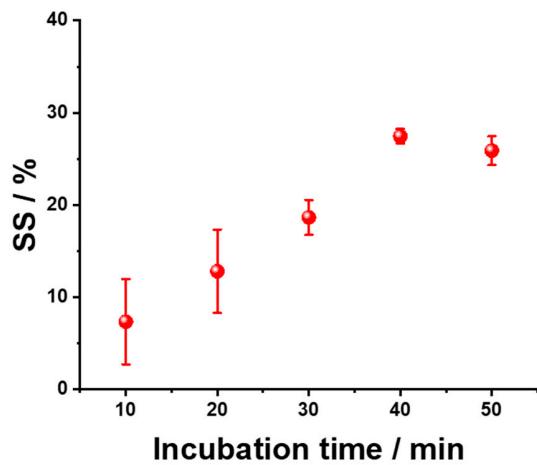


Figure S2. Optimization of the target incubation time.

Table S1. Performance comparison of the proposed electrochemical aptasensor with other serotonin sensors.

| Method | Liner range | Detection limit | Ref. |
|--------------------|--------------------------|-----------------|------------------|
| Aptamer/AuNPs | 750 nM - 2.5 μ M | 300 nM | [1] |
| Aptamer/SWCNT | 100 nM - 1 μ M | - | [2] |
| Carbon spheres/GCE | 40 μ M - 750 μ M | 700 nM | [3] |
| AgNP/L-Cys/MXene | 500 nM - 150 μ M | 80 nM | [4] |
| Aptamer/Gold | 1 μ M - 100 μ M | 300 nM | [5] |
| AMTA/GCE | 1 nM - 50 μ M | 0.013 nM | [6] |
| Aptamer/PEG | 0.1 nM - 1 μ M | 0.14 nM | This work |

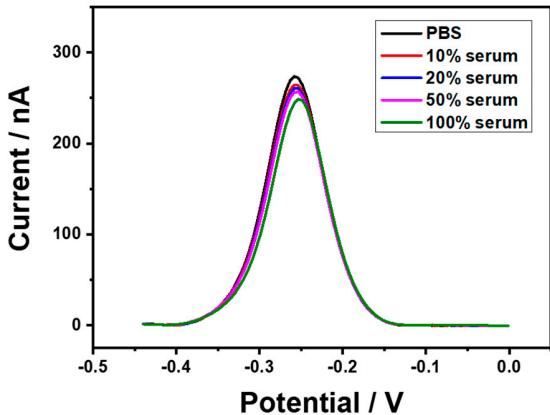


Figure S3. SWV responses of AuE with PEG blocking after incubation in different concentrations of human serum samples.

References

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