

## Supplementary Material

### **Electrochemical determination of selected neurotransmitters at electrodes modified with oppositely charged carbon nanoparticles**

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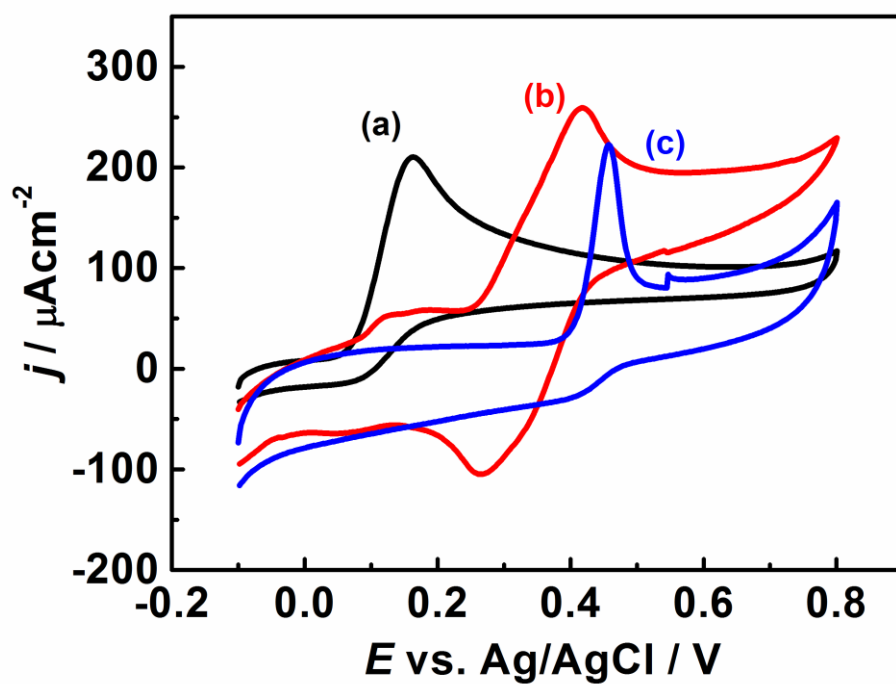
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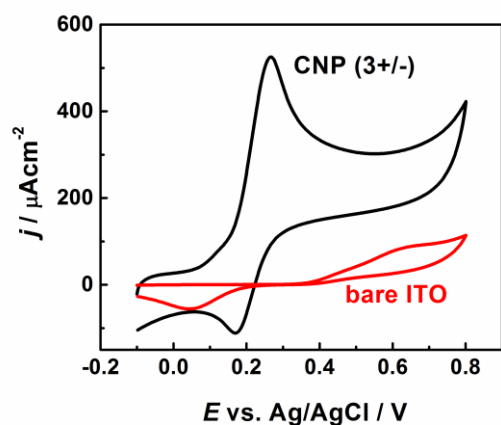
E-mail address: [kszot@ichf.edu.pl](mailto:kszot@ichf.edu.pl) (Katarzyna Szot)

**To be submitted to Analytical Methods**

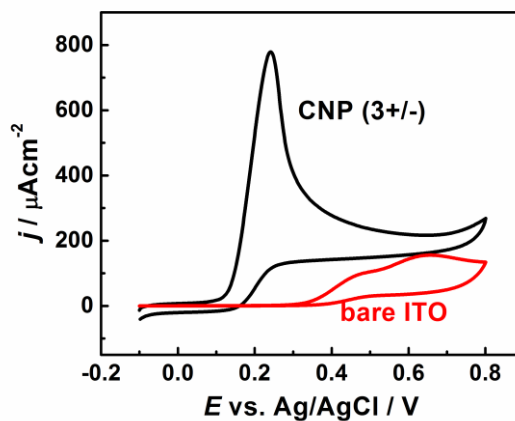


**Supplementary Figure F1** Cyclic voltammograms of (a) 2.0 mM AA, (b) 2.0 mM DA and (c) 1.0 mM UA in 0.10 M PBS (pH 5.0) at ITO electrode coated with CNPs(3+/-). Scan rate 20 mV s<sup>-1</sup>.

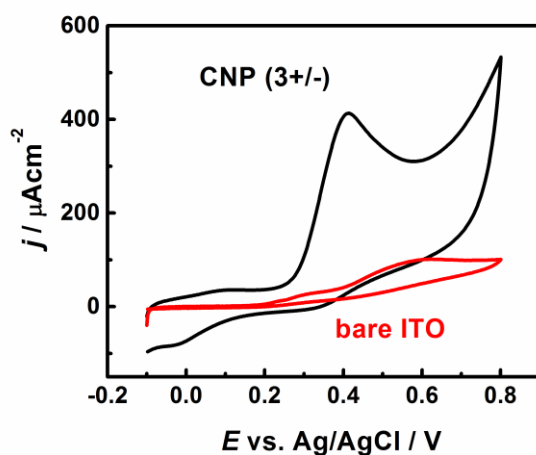
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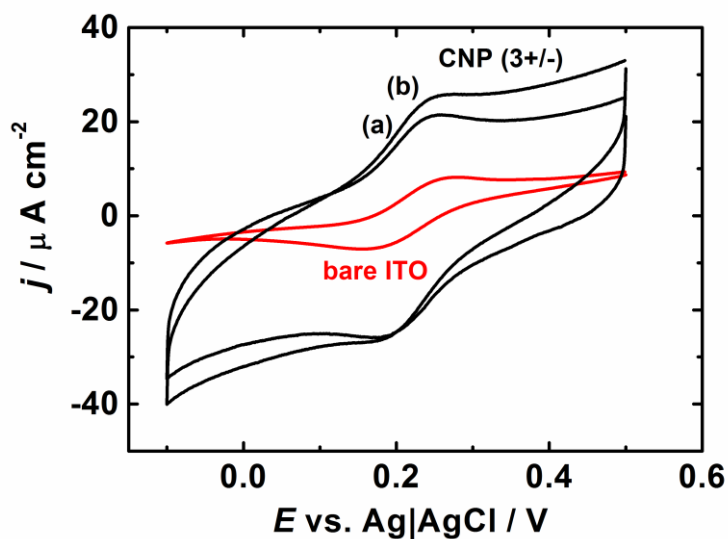
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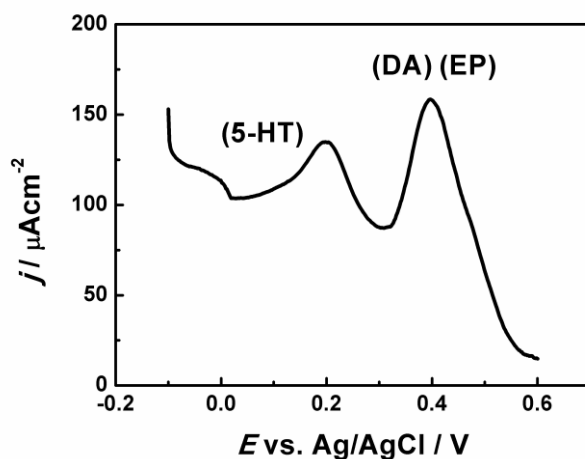
(C)



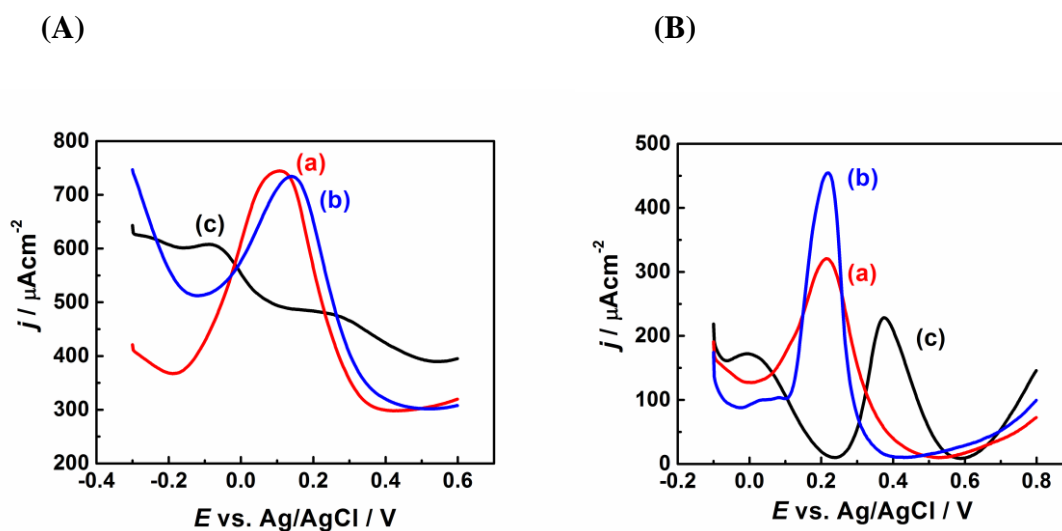
**Supplementary Figure F2** Cyclic voltammograms of (A) 2.0 mM DA, (B) 2.0 mM EP and (C) 2.0 mM 5-HT in 0.10 M PBS (pH 7.0) at ITO electrode coated with CNPs(3+/-) and bare ITO electrode. Scan rate 20 mV s<sup>-1</sup>.



**Supplementary Figure F3** Cyclic voltammograms of a bare ITO electrode and coated with CNPs(3+/-) immersed in 0.1 mM  $\text{K}_3\text{Fe}(\text{CN})_6$  solution and in 0.1 M  $\text{NaClO}_4$  aqueous solution (a) 2<sup>nd</sup> scan and (b) 5<sup>th</sup> scan. Scan rate  $10 \text{ mV s}^{-1}$ . (Electronic Supporting Information in <sup>1</sup>)



**Supplementary Figure F4** DPV voltammograms obtained with CNPs(3+/-) electrode immersed in 2 mM 5-HT, 2 mM EP and 2 mM DA in 0.1 M phosphate buffer pH 5.0. Scan rate  $20 \text{ mV s}^{-1}$ , pulse interval 100 ms, pulse amplitude 50 mV, pulse width 50 ms.



**Supplementary Figure F5** DPV voltammograms obtained with CNPs(3+/-) electrode immersed in (a) 1.0 mM DA, (b) 1.0 mM EP and (c) 1.0 mM 5-HT in 0.10 M PBS pH (A) 5.0 (B) 7.0 at ITO electrode coated with CNPs(3+/-). Scan rate of  $20 \text{ mV s}^{-1}$ , pulse interval 100 ms, pulse amplitude 50 mV, pulse width 50 ms.

#### References

1. K. Szot, M. Jönsson-Niedziolka, E. Rozniecka, F. Marken and M. Opallo, *Electrochim Acta*, 2013, **89**, 132-138.