Supplementary Material

Co-MOF@MWCNTs/GCE for the the sensitive detection of TBHQ in food samples

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1. Effect of drop casting amount

Fig. S1. (A) The DPV response of 100 μM TBHQ at different modification amounts of Co-MOF@MWCNTs electrodes; (B) The relationship between the oxidation peak current of TBHQ and drop casting amount of the Co-MOF@MWCNTs.

Fig. S1A and B showed the relationship between the amount of Co-MOF@MWCNTs modification and the peak current. As shown in Fig. S1A and B, the peak current increases with the increase of the amount of Co-MOF@MWCNTs modification. When the material modification amount is 5 μL, the peak current reaches the maximum, and then decreases gradually. This is because the effective working area of the modified electrode also increases with the initial amount of Co-MOF@MWCNTs, and when the amount of dressing is too large, the large amount of material covering on the electrode surface hinders electron transfer. Therefore, 5 μL Co-MOF@MWCNTs material was selected as the best drop casting amount.

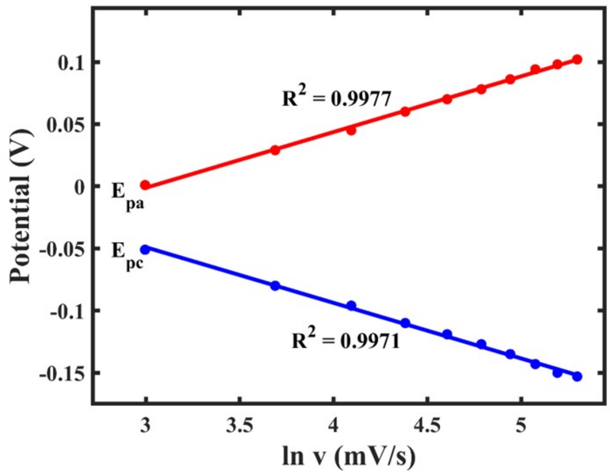

Fig. S2. Plot of the peak potential (E_{pa} and E_{pc}) versus the natural logarithm of scan rates (ln *v*).

Fig. S3. DPV curves of TBHQ at the Co-MOF@MWCNTs: (A) Anti-interference, (B) Repeatability, (C) Reproducibility analysis, and (D) stability analysis for 30 days.