Review of: "Critical Review on Carbon Nanomaterial Based Electrochemical Sensing of Dopamine the Vital Neurotransmitter"

Zitao Zhong[1]

1 Kunming University of Science and Technology, Kunming, China

Potential competing interests: No potential competing interests to declare.

The authors proposed a critical review on carbon nanomaterial-based electrochemical sensing of dopamine and intended to provide an overview of the latest progress in non-enzymatic electrochemical sensing of dopamine, as well as to focus on its integration with carbonaceous nanomaterials in electrodes. However, the whole paper lacks readability and systematization. Superfluous description is displayed, and thus this paper should be majorly revised for further evaluation.

1. The Graphical Abstract is one-sided and oversimplified. For example, besides UA and AA, other interferents should be included in the body fluid. Moreover, the types of carbonaceous nanomaterials and their applications should be illustrated.
2. “Various techniques have been developed to measure dopamine concentration and its analogs,…” The authors listed a series of polymers of the catecholamines and analogs, which are not correctly present in bodily fluids.
3. There are too many descriptive sentences, and more substantial content, such as the principle of the method, the usage of material, and the performance of the sensor, should be emphasized.
4. There is only one sub-heading, 3.1. Electrochemical sensing of dopamine. More thorough context should be supplemented about electrochemical sensing methods.
5. Besides listing the various methods in the Table, the illustration of some representative research should be provided for more readability.
6. The arrangement of section 4 is unreasonable. The better section design should be classified based on the type of the carbonaceous nanomaterials (not only including graphene and CNT).