Supporting electrolyte (SI)

**An in-situ synthesis of novel V2O5/G-C3N4/PVA nanocomposite for enhanced electrocatalytic activity toward sensitive and selective sensing of Folic acid (FA) in natural samples**

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*SI. 1. Real samples preparation*

Real sample analysis was done on natural samples such as broccoli, human urine; human blood serum, oranges, Tomato juice, Beetroot, papaya juice, and commercial folate tablet were chosen. The collected food samples were purchased from simmakkal market, Madurai (Tamilnadu), India and urine sample, human serum was collected from the patients in Rajaji Hospital, Madurai, and Tamilnadu, India. The sample of urine was unswervingly together from good patients and it was stored at 4oC in the refrigerator instantaneously after collection. 10 mL of (human urine, human blood serum) both samples were used in centrifugation at 6000 rpm for 20 min. The supernatant elucidation was filtered with No.1 Whatman filter paper and then diluted with 0.05 M PB (pH 7). These samples were directly used for the real sample analysis. For preparation of pharmaceutical (tablet folate -20 mg) sample, two Folate tablet was trampled and stored in a screw cap bottle. An amount of 20 mg of crushed Folate tablet was weighed and dissolved with the required volume of 0.05M PB (pH=7). These solutions were directly used for undertaking the electrochemical experiments. However, the sample preparation was collected broccoli, oranges, Tomato juice, Beetroot, and papaya juice (10 mL each), and taken in a flask and 40 mL of ethanol and 5 mL of HCl (6 mol. L−1) was added. After the combination was stirred at 90°C for 2 h in a water bath, it was cooled and filtered. Then the filtrate solution was diluted with water.