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Supporting Information

Design and Development of Sb_2WO_6 / graphene oxide (2D) nanocomposite as novel electrochemical metal ion sensor and improved photocatalyst for degradation of tetracycline

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(A).







(C).



Figure S1: (A). SEM images at different scales for Sb_2WO_6 (a, b) and Sb_2WO_6/GO (c, d); **(B).** EDS analysis of Sb_2WO_6/GO nanocomposite; **(C).** Elemental mapping of respective elements in Sb_2WO_6/GO nanocomposite.



Figure S2: Complete range XPS survey scan Sb₂WO₆/GO nanocomposite



Figure S3: Comparative Nyquist plots in the frequency range of 0.1Hz-100Hz for Sb₂WO₆ and Sb₂WO₆/GO nanocomposite corroborating charge transfer enhancement of nanocomposite.



Figure S4: Scavenger experiment for identifying dominant radical involved in photocatalytic activity of Sb₂WO₆/GO nanocomposite (a). Utilizing Sb₂WO₆/GO nanocomposite, for the photodegradation of Tetracycline through multiple cycles (b).