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Abstract	:	Metal-based catalysts such as platinum and gold are frequently employed as electrocatalysts. However, they faced significant limitations, including high cost and susceptibility to poisoning and degradation, hindering their extensive utilization. To overcome these challenges, metal oxide offers promising alternatives for its fast electron transfer rate, large surface area, and high electrocatalytic activity in electrochemical oxidation materials. In this work, ZnO doped with Fe2O3 was scattered on reduced graphene oxide (rGO) to form a ZnOFe2O3/rGO hybrid by a hydrothermal method for glucose oxidation. The synthesized ZnOFe2O3/rGO composite was thoroughly characterized using field emission scanning electron microscopy (FESEM), transmission electron microscopy (TEM), Fourier transform infrared spectroscopy (FTIR), X-ray diffraction (XRD), and X-ray photoelectron spectra (XPS) analysis, and the electrochemical performance was evaluated using cyclic voltammetry. ZnO particles are highly uniform flowerlike particles interacting with uniform-size spherical-like particles of Fe2O3 in ZnO–Fe2O3 supported on the rGO. The result reveals that interaction between ZnO–Fe2O3 nanocomposites supported onto graphene sheets reduces agglomeration compared to parent nanoparticles…see more.