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Electro-oxidation of some non-steroidal anti-inflammatory drugs on an alumina nanoparticle-modified glassy carbon electrode

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Abstract: The electro-oxidation of mefenamic acid, diclofenac, and indomethacin on glassy carbon and alumina nanoparticle-modified glassy carbon electrodes in a phosphate buffer solution at physiological pH was studied. The techniques of cyclic voltammetry, chronoamperometry, impedance spectroscopy, and steady state polarization measurements were applied. The drugs were irreversibly oxidized on both electrodes via an anodic peak and the